

**Pre-Design Investigation Report
for In-Situ Solidification and
Off-Site Groundwater Treatment
Hempstead Intersection Street
Former Manufactured Gas Plant Site
Villages of Hempstead & Garden City
Nassau County, New York**



Prepared for:

National Grid

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Hicksville, New York 11801

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**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

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**HEMPSTEAD INTERSECTION STREET
FORMER MANUFACTURED GAS PLANT SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY
NASSAU COUNTY, NEW YORK**

Prepared for:

**National Grid
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Hicksville, NY 11801**

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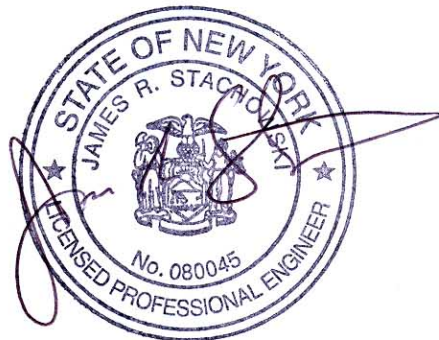


TABLE OF CONTENTS

	<u>Page No.</u>
LIST OF ACRONYMS AND ABBREVIATIONS	vi
EXECUTIVE SUMMARY	E-1
1.0 INTRODUCTION	1-1
1.1 Project Objectives	1-1
1.2 Site Description	1-2
1.2.1 Previous Reports	1-3
1.2.2 Geology and Hydrogeology	1-4
1.2.3 MGP Source Material.....	1-6
1.2.4 Dissolved-Phase Groundwater Plume	1-6
1.2.5 Conceptual Site Model	1-7
1.3 In-Situ Solidification (ISS) Objectives.....	1-8
1.4 Groundwater Treatment Objectives	1-9
1.5 Purpose of the Pre-Design Investigation	1-9
2.0 INVESTIGATION PROGRAM	2-1
2.1 Overview	2-1
2.2 ISS Pre-Design Investigation	2-1
2.2.1 Source Material Limits Investigation	2-3
2.2.2 MGP Structures Investigation	2-5
2.2.3 Environmental Forensics Analysis.....	2-5
2.2.4 Geotechnical Investigation	2-7
2.2.5 Bench-Scale Treatability Study Sampling	2-8
2.2.6 Hydraulic Conductivity Testing	2-9
2.2.7 Geochemical Testing for Leaching Assessment.....	2-10
2.3 Groundwater Treatment System Pre-Design Investigation.....	2-10
2.3.1 Groundwater Sampling and Analysis.....	2-10
2.3.2 Soil Sampling and Analysis	2-15
2.3.3 Well Installations.....	2-15
2.4 Redevelopment of Wells HIMW-08S/I.....	2-15
2.5 Community Air Monitoring	2-16
2.5.1 Overview	2-16
2.5.2 Alert and Action Levels	2-17
2.5.3 Instrumentation.....	2-18
2.6 Utility Locating and Surveying	2-18
3.0 INVESTIGATION RESULTS.....	3-1

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

3.1	ISS Pre-Design Investigation Results.....	3-1
3.1.1	Professional Office Building/Wendell Street	3-2
3.1.2	LIRR Right-of-Way, East of the Professional Office Building Parking Lot	3-3
3.1.3	Village of Garden City Property	3-4
3.1.4	Northern Remediation Limits.....	3-4
3.1.5	LIRR Right-of-Way, East of MGP Site, North of the Adjacent Oil Storage Terminal	3-4
3.1.6	LIRR Right-of-Way, East of MGP Site, West of Adjacent Oil Storage Terminal	3-5
3.1.7	LIRR Right-of-Way at Intersection Street	3-5
3.2	MGP Structures	3-6
3.3	Miscellaneous Soil Analytical Results	3-6
3.3.1	Sample DGP-203.....	3-6
3.3.2	Samples DGP-234 and DGP-257	3-7
3.4	Environmental Forensic Interpretations	3-8
3.4.1	Interpretations by META	3-8
3.4.2	Interpretations Based on Soil Boring and NAPL Monitoring	3-11
3.4.3	Fuel Fingerprint Identifications by H2M	3-12
3.4.4	Summary	3-14
3.5	Soil Properties	3-15
3.5.1	Temporary Excavation Protection System	3-15
3.5.2	ISS Soil Mixing.....	3-17
3.6	Hydraulic Conductivity	3-17
3.7	Groundwater Treatment System Pre-Design Investigation Results	3-18
3.7.1	Groundwater.....	3-18
3.7.2	Soil Properties	3-23
3.7.3	General Discussion.....	3-24
3.8	Community Air Monitoring Data.....	3-25
3.9	Infrastructure and Utilities.....	3-26
4.0	CONCEPTUAL DESIGN	4-1
4.1	ISS	4-1
4.1.1	ISS Layout.....	4-1
4.1.2	Excavation of MGP Structures.....	4-2
4.1.3	Groundwater Modeling	4-3
4.1.4	Groundwater Flow Model	4-4
4.1.5	Infiltration Ponding Analysis	4-5
4.1.6	Work Sequencing	4-6
4.2	Groundwater Treatment System.....	4-8

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

4.2.1	General Discussion.....	4-8
4.2.2	Layout	4-9
5.0	SUMMARY	5-1
5.1	Reason For The Investigation.....	5-1
5.2	Site History	5-2
5.3	PDI Investigation Activities	5-4
5.4	Key Findings	5-5
6.0	REFERENCES	6-1

LIST OF TABLES

Table 2-1	DGP Boring Sample Information
Table 2-2	Forensic Analysis Samples
Table 2-3	ISS Treatability Study Sample Information
Table 2-4	Hydraulic Conductivity Test Wells
Table 2-5	Soil and Groundwater Tests for Leaching Assessment Model
Table 2-6	Temporary Groundwater Sample Information
Table 2-7	Well Construction Summary
Table 3-1	Soil Analytical Results DGP Samples
Table 3-2	Soil Analytical Results Sample DGP-203
Table 3-3	Environmental Forensic Interpretations
Table 3-4	Geotechnical Laboratory Test Results
Table 3-5	Hydraulic Conductivity Test Results
Table 3-6	Groundwater Analytical Results
Table 3-7	Groundwater Geochemical Data

LIST OF FIGURES

Figure 1-1	Site Location
Figure 1-2	Former MGP Structures and Site Features
Figure 1-3	Previous Sample Locations
Figure 1-4	IRM Excavation Delineation and Geotechnical Boring Locations
Figure 1-5	Previous Sample Locations (Off-Site)
Figure 2-1	Boring and Sampling Locations for ISS Investigation
Figure 2-2	Environmental Forensics Sample Locations
Figure 2-3	Pre-Design Investigation Off-Site Investigation Locations
Figure 3-1	Source Material Delineation Site Layout
Figure 3-2	Source Material Delineation Sheet 1 of 5
Figure 3-3	Source Material Delineation Sheet 2 of 5
Figure 3-4	Source Material Delineation Sheet 3 of 5
Figure 3-5	Source Material Delineation Sheet 4 of 5
Figure 3-6	Source Material Delineation Sheet 5 of 5
Figure 3-7	Cumulative Source Material Soil Thickness
Figure 3-8	NAPL Observations in Monitoring Wells
Figure 3-9	Adjacent Oil Storage Terminal Area Visual and Forensics Observations
Figure 3-10	Adjacent Oil Storage Terminal Area Visual/Olfactory Impacts Cross Sections A-B-C
Figure 3-11	2001 Groundwater MTBE Results Summary Adjacent Oil Terminal Area
Figure 3-12	Dissolved Phase Groundwater Plume Plan View
Figure 3-13	Cross Sections Location Plan
Figure 3-14	Dissolved Phase Groundwater Plume Cross-Section D-D'
Figure 3-15	Dissolved Phase Groundwater Plume Cross-Sections E-E'

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

Figure 3-16	Dissolved Phase Groundwater Plume Cross-Sections F-F'
Figure 3-17	Dissolved Phase Groundwater Plume Cross-Sections G-G'
Figure 3-18	Site-Wide Utilities (Composite)
Figure 3-19	Site-Wide Utilities (Gas)
Figure 3-20	Site-Wide Utilities (Storm Sewer, Sanitary Sewer, and Water)
Figure 3-21	Site-Wide Utilities (Electric and Telephone)
Figure 4-1	In Situ Solidification Illustration
Figure 4-2	In Situ Solidification Conceptual Cross-Section
Figure 4-3	In Situ Solidification Conceptual Details
Figure 4-4	Pre Remediation Simulated Groundwater Flow Regime – Plan
Figure 4-5	Pre Remediation Simulated Groundwater Flow Regime – Section
Figure 4-6	Post Remediation Simulated Groundwater Flow Regime – Plan
Figure 4-7	Post Remediation Simulated Groundwater Flow Regime – Section
Figure 4-8	Typical Oxygen Well
Figure 4-9	Oxygen Delivery System Process Flow Diagram
Figure 4-10	Conceptual Layout of Oxygen Delivery Systems

LIST OF APPENDICES

Appendix A	Boring and Test Pit Logs, Well Construction Diagrams
Appendix B	Environmental Forensic Report
Appendix C	Soil Geotechnical Test Reports
Appendix D	Hydraulic Conductivity Test Results
Appendix E	Groundwater Purging/Sampling Logs
Appendix F	CAMP Data Summary
Appendix G	Data Usability Summary Report
Appendix H	PS&S Figure 2A

LIST OF ACRONYMS AND ABBREVIATIONS

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CAMP	Community Air Monitoring Plan
cm/sec	centimeters per second
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
DSM	deep soil mixing
DUSR	data usability summary report
ft	foot (feet)
FS/RAP	Feasibility Study/Remedial Action Plan
F&N	Fenley & Nicol, Inc.
GPS	global positioning system
GC/FID	gas chromatography/flame ionization detection
GC/MS	gas chromatography/mass spectrometry
HCN	Hydrogen Cyanide
HELP	Hydraulic Evaluation of Landfill Performance
H2M	H2M Laboratories
H ₂ S	Hydrogen Sulfide
IRM	interim remedial measure
ISS	in-situ solidification
LILCO	Long Island Lighting Company
LIPA	Long Island Power Authority
LIRR	Long Island Railroad
LNAPL	light non-aqueous phase liquid
MAHs	monocyclic aromatic hydrocarbons
META	META Environmental, Inc.
MGP	manufactured gas plant
MTBE	methyl tertiary butyl ether
mV	millivolts
mg/kg	milligrams per kilogram

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

mg/L	milligrams per liter
NAD	North American Datum
NAPL	non-aqueous phase liquid
NCDH	Nassau County Department of Health
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ORP	oxidation-reduction potential
PAHs	polycyclic aromatic hydrocarbons
PDI	Pre-Design Investigation
PID	photoionization detector
PLC	Programmable Logic Controller
ppm	parts per million
ppmv	parts per million (volume basis)
PVC	polyvinyl chloride
PM ₁₀	particulate matter < 10 µm
QAPP	Quality Assurance Project Plan
QC	quality control
RI	Remedial Investigation
ROW	right-of-way
SAP	Sampling and Analysis Plan
SPT	Standard Penetration Test
SVOCs	semi-volatile organic compounds
TCL	Target Compound List
TEPS	temporary excavation protection system
TOC	Total Organic Carbon
TVOCs	Total Volatile Organic Compounds
URS	URS Corporation
USEPA	United States Environmental Protection Agency
USGS	US Geological Survey
VOCs	Volatile Organic Compounds
Zebra	Zebra Environmental

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

$\mu\text{g/kg}$	micrograms per kilogram
$\mu\text{g/L}$	micrograms per liter
$\mu\text{g/m}^3$	micrograms per cubic meter

EXECUTIVE SUMMARY

This report provides the results of the Pre-Design Investigation (PDI) for the Hempstead Intersection Street Former Manufactured Gas Plant (MGP) site (Site) located in the Villages of Hempstead and Garden City, Nassau County, New York. The PDI fieldwork was completed between September 2008 and September 2009. This report was prepared for National Grid by URS Corporation in accordance with the PDI Work Plan dated July 2008 (URS, 2008d). This PDI report supplements previous key Site-related documents including the February 2008 Feasibility Study/Remedial Action Plan (URS, 2008b) and the November 2006 Remedial Investigation (RI) Report (PS&S, 2006). The PDI Report summarizes field and laboratory sampling and testing activities that were performed to support the design of an in-situ solidification (ISS) remedial program and in-situ groundwater treatment systems for the Site.

Reason For Investigation

The November 2006 RI Report describes MGP source material that was identified in soils and the dissolved phase contamination identified in groundwater. The PDI was completed to obtain additional information that will be used to design the ISS remedial program for MGP source material impacted soils and oxygen delivery systems to address dissolved phase MGP contamination in groundwater.

In accordance with the New York State Department of Environmental Conservation (NYSDEC) Decision Document dated March 2008, the NYSDEC approved ISS for the Site and surrounding areas to encapsulate MGP source material in soil within a low permeability monolith (NYSDEC, 2008). The ISS will produce a solidified mass that is intended to reduce the mobility of non-aqueous phase liquid (NAPL), significantly reduce the leachability of contaminants to groundwater, and enhance the remediation of the dissolved-phase plume by reducing contaminant dissolution to groundwater. The PDI was performed to better define the limits of areas targeted for ISS and to obtain samples for a bench-scale treatability study. Testing was also performed to obtain data that will be used in groundwater flow and contaminant mass transport models. These models will evaluate how the aquifer responds to the presence of the solidified mass beneath the

Site and how the transport of dissolved contaminants will be affected by the solidified mass. The ISS design phase will be used to further refine the planned ISS limits.

The proposed groundwater treatment systems will provide high-purity oxygen into the dissolved-phase contaminant plume via three treatment systems; (1) in the vicinity of Smith Street, the inactive Long Island Railroad (LIRR) Right-of-Way (ROW), and in the road ROW for Atlantic Avenue and Hilton Avenue, (2) in Mirschel Park, on private property located at 158 Hilton Avenue, and in the road ROW for Hilton Avenue and Kensington Court, and (3) on private property located at 106 Hilton Avenue and in the ROW for Hilton Place and Cathedral Court. The installation of System 3 is dependent on the ability to obtain the necessary property access agreements. Data was collected during the PDI to verify the lateral and vertical extent of the plume in the vicinity of the treatment systems, to document intrinsic remediation processes in the groundwater plume, and to provide information that will be used during the remedial design.

Site History

According to National Grid, the Nassau and Suffolk Lighting Company operated the plant starting in the early 1900s. The Long Island Lighting Company (LILCO) acquired an ownership share of the Site in the early 1930s and LILCO decommissioned the MGP in the early 1950s. In 1998, LILCO merged with Brooklyn Union Gas forming KeySpan Corporation. KeySpan was later acquired by National Grid in 2008. The facility originally produced coal gas but was converted to a carbureted water gas process sometime after 1910. Following the arrival of natural gas, the Site served as a peak/emergency facility to ensure gas supply until all MGP operations ceased in the mid-1950s. The plant was subsequently demolished shortly afterward.

Since demolition of the plant in the 1950s, the majority of the Site has been inactive except for vehicle parking in the southern and eastern portions of the Site and the ongoing operation of a National Grid natural gas regulator station in the northwestern portion of the Site. Currently, the Site is undeveloped and is secured by a perimeter fence.

The November 2006 RI Report described MGP Site-related impacts to soil and groundwater. The impacted materials are associated with coal tar and related constituents that are expected to be found at a former MGP site. The MGP impacts range from dissolved-phase

contamination in the groundwater; to an immiscible fluid that is denser than water (dense non-aqueous phase liquid – DNAPL); to tarry material trapped in soils.

The typical MGP-related chemical constituents are principally benzene, toluene, ethylbenzene, and xylenes (BTEX) and polycyclic aromatic hydrocarbons (PAHs) that are found in the soil, groundwater, and NAPL. The RI and PDI investigation results indicate that the majority of MGP impacts and/or DNAPL are located in two intervals beneath the Site, shallow soils in the upper 8 feet at locations near the former MGP structures or operations and near the water table interface approximately 24 to 34 feet.

The Site-related impacts migrated south from the Site with the flow of groundwater. During the RI, DNAPL was found to extend approximately 450 feet south of the Site beneath a Professional Office Building parking lot. The extent of the dissolved-phase BTEX and PAH plume is approximately 600 feet wide by approximately 3,800 feet long. The concentrations of BTEX and PAHs decrease rapidly downgradient from the Site. Downgradient migration of the dissolved-phase plume is retarded by naturally occurring organic carbon in the soil and attenuated by naturally occurring biodegradation.

The MGP contaminants have not adversely impacted drinking water supplies in the community. The previous investigations have determined that the Site is located outside of the groundwater capture zones for adjacent water supply wells operated by the Village of Garden City and water supply wells operated by the Village of Hempstead at Clinton Street.

Based on the RI, there are no current or potential exposure pathways through which individuals on or near the Site could be exposed to potentially hazardous materials related to the former MGP Site. In addition, soil vapor intrusion testing did not identify volatile organic vapors related to the MGP Site in nearby buildings or in soil vapor monitoring points located in the vicinity of the dissolved phase groundwater plume.

Interim Remedial Measures (IRMs) have been implemented at the Site, which are summarized below:

1. A “cut and plug” IRM was conducted in 1999 and 2000. The objective was to locate underground piping associated with former MGP structures so that each pipe could be cut, drained of any fluids, and plugged to limit the potential for off-Site migration of MGP materials.
2. Shallow impacted soils on site were excavated and taken off-Site for treatment and disposal during 2008. These areas were selected in part because they were not scheduled for future remediation via ISS.
3. Since 2007, DNAPL has been recovered from wells installed on and downgradient of the Site. In 2008 and 2009, 31 additional product recovery wells were installed to supplement the existing recovery wells. DNAPL recovery is ongoing and will continue until the recovery wells are abandoned in conjunction with starting the ISS program.

There are two areas of known contamination not related to the former MGP Site. An Adjacent Oil Storage Terminal that has a documented history of petroleum releases is located immediately east of the Site beyond an inactive railroad right-of-way. Petroleum storage and distribution activities continue at this active Oil Storage Terminal. The Mollineaux Brothers Fuel Company operated a fuel loading and storage facility immediately southeast of the Site that is now inactive. Documentation indicates that a petroleum release also occurred at this facility.

PDI Investigation Activities

The PDI activities focused on collecting data to support the engineering design for the ISS remediation and the oxygen delivery remediation systems. A summary of the investigation activities is provided below.

ISS Pre-Design Investigation

- A soil boring program (120 borings) was completed to refine the delineation of MGP source material. The results are discussed in Section 3.1.
- One test pit was excavated to investigate the limits of a former MGP structure at the Site boundary. The results are discussed in Section 3.2.
- Environmental forensic analyses were performed on one LNAPL sample and 9 NAPL saturated soil samples that were collected in borings and wells located in the vicinity of the Adjacent Oil Storage Terminal. The results are discussed in Section 3.4.

- Fuel fingerprint identifications were performed on 8 soil samples that were collected from borings located in the vicinity of the Adjacent Oil Storage Terminal. The results are discussed in Section 3.4.
- Soil borings were completed and geotechnical tests were performed to provide data that will be used to evaluate excavation stability during implementation of the ISS remediation. The results are discussed in Section 3.5.
- Bulk soil samples were collected for bench-scale testing and leaching assessments that are being conducted to design the ISS mix(es). This testing is ongoing.
- Slug testing was performed on 13 monitoring wells to obtain hydraulic conductivity data that will be used in groundwater flow and contaminant mass transport models. The results are discussed in Section 3.6. The groundwater modeling effort is ongoing.
- Soil and groundwater samples were collected and analyzed for geochemical parameters that will be used for a leaching assessment model to evaluate the ISS solidified mass. The modeling is ongoing.
- The locations of utilities were verified and mapped within the proposed ISS remediation area. The results are discussed in Section 3.9.

Groundwater Treatment System Pre-Design Investigation

- Groundwater sampling and analysis was performed to verify and delineate the dissolved phase contamination plume in the vicinity of the proposed oxygen wells and to document geochemical conditions in the aquifer relative to intrinsic bioremediation processes. The results are discussed in Section 3.7.
- Geotechnical testing was performed on soil samples to support design of the oxygen wells. The results are presented in Section 3.7.
- The locations of utilities were verified and mapped within the proposed areas of the groundwater treatment systems. The results are discussed in Section 3.9.

Key Findings

1. The November 2006 RI Report described the types and general locations of MGP impacts on and off the Site. The PDI more precisely defined the limits of the areas where MGP source material will be remediated with ISS. The planned ISS treatment extends from the central and southern portions of the Site and along the eastern property boundary. MGP source material is also located under a parking lot for the Professional Office Building that is south of the Site; and a portion of an adjacent park northwest of the Site that is operated by the Village of Garden City.
2. Slug testing of existing wells has confirmed that the underlying aquifer has a high permeability, which is consistent with reported regional observations.

3. The total area that contains MGP source material, which is proposed for ISS, encompasses approximately 5 acres. This area represents an approximate 50 percent increase compared to the area estimated in the Feasibility Study/Remedial Action Plan.
4. The cumulative thickness of MGP soil impacts range from less than 1 foot to approximately 36 feet. The depth (below ground surface) of MGP source material ranges from 0 feet (northeast section of the Site) to greater than 60 feet (northwest section of the Site).
5. Numerous remnant MGP structures and utilities (active and inactive) are present in areas that will be remediated by ISS. In general, the top 8 feet of soil will be excavated in the proposed ISS areas prior to ISS.
6. Additional delineation of MGP source material requested by NYSDEC in the vicinity of the Adjacent Oil Storage Terminal will be completed upon receipt of an access agreement from the owner of this property.
7. MGP source material extends beneath the southern end of the Professional Office Building at a depth greater than 25 feet below ground surface. Vapor intrusion assessments performed inside of the building (separate from the Pre-Design Investigation) indicate that there were no MGP related compounds in the indoor air. The building consists of a finished basement that contains professional offices. Based on the building occupancy and use, it would not be feasible to remediate the underlying MGP source material from within the building.
8. Modeling performed to evaluate the effects of the solidified soil mass on the groundwater flow indicate that changes in the groundwater flow around the solidified mass will be minimal. Groundwater will flow around and beneath the solidified mass, which will result in negligible changes to the groundwater surface at the upgradient and downgradient sides of the solidified soil. The negligible groundwater flow changes should not increase the existing plume dimensions. A monitoring plan will be developed to monitor groundwater flow directions and evaluate if there are any changes to the flow path.
9. During high rainfall events, up to 3 or 4 feet of perched water could accumulate on the solidified soil surface that may be located approximately 8 feet below the ground surface. This will not inundate the ground surface with accumulated water since the solidified soil surface may be completed at approximately 8 feet below ground surface. Design of the ISS remediation will also evaluate methods to enhance the drainage of perched water from the solidified surface.
10. Forensic analysis of NAPL and contaminated soil samples and fuel fingerprint identifications of contaminated soil samples from the vicinity of the Adjacent Oil Storage Terminal has verified that the area is impacted by fresh and weathered No. 2

fuel oil consistent with the petroleum products handled on the Adjacent Oil Storage Terminal property.

11. Petroleum releases at the Adjacent Oil Storage Terminal have resulted in a separate plume of light non-aqueous phase liquid (LNAPL) and dissolved phase contamination in groundwater on the Adjacent Oil Storage Terminal property and to the south. The LNAPL-related dissolved phased groundwater contamination plume from the Adjacent Oil Storage Terminal overlies deeper MGP Site-related impacts in the vicinity of the Site and the Adjacent Oil Storage Terminal property.
12. Analysis of soil samples collected around the Adjacent Oil Storage Terminal property indicate that the concentrations of MGP-related contaminants are below the remediation thresholds that have been established for the former MGP Site.
13. Analysis of groundwater samples along possible alignments of the proposed groundwater treatment systems and from permanent monitoring wells has confirmed that dissolved contamination from the former MGP Site occurs in the shallow water-bearing zone closer to the Site and at greater depths further downgradient (i.e., south) of the Site. The PDI data also documents that the concentration and extent of the plume has remained consistent with the results presented in the RI Report, which indicates that the plume is stable.
14. Geochemical testing of groundwater samples within the plume has documented the occurrence of natural attenuation processes, which cause the stable plume conditions that have been observed.
15. The geochemical data indicates that anaerobic conditions occur within the contaminant plume and that the delivery of oxygen into the plume will promote aerobic biodegradation of the contaminants. Aerobic biodegradation rates are typically one to several orders of magnitude faster than naturally-occurring, non-stimulated anaerobic rates.
16. Elevated levels of dissolved iron are present in the contaminant plume that must be evaluated during design of the groundwater remediation systems that will deliver high-purity oxygen into the water table. Design issues associated with the dissolved iron concentrations include oxygen demand exerted by the iron and the potential for fouling due to biological growth and/or the formation of iron oxide precipitates.
17. The design layout of the oxygen delivery wells and treatment system enclosures will require access to properties that are not owned by National Grid, or within the road right-of-ways. The final system layouts will be determined by property access agreements that can be reached between National Grid and the landowners.

1.0 INTRODUCTION

1.1 Project Objectives

This PDI report was prepared by URS Corporation-New York (URS) on behalf of National Grid, for the Hempstead Intersection Street Former MGP Site located in the Villages of Hempstead and Garden City, Nassau County, New York (see Figure 1-1).

This report describes the methodologies that were used to implement the PDI and provides interpretations of the results. Sampling and testing locations are identified, field and laboratory tests are described, and interpretations are provided relative to the ISS remediation and groundwater treatment systems. The areas of investigation and the methods and procedures used to obtain information needed to complete the ISS and groundwater treatment designs were presented in a Pre-Design Investigation Work Plan dated July 2008 (URS, 2008d).

The PDI was completed in accordance with an Order on Consent (#D1-0001-98-11) (the Order) between KeySpan Energy (now National Grid) and the NYSDEC. The Order requires National Grid to prepare a remedial plan that evaluates on-site and off-site remedial actions to address environmental impacts associated with the Hempstead Intersection Street former MGP. A Feasibility Study/Remedial Action Plan (FS/RAP) for the Site was prepared by National Grid and submitted to the NYSDEC in February 2008 based on NYSDEC, New York State Department of Health (NYSDOH), and Nassau County Department of Health (NCDH) comments. The FS/RAP recommended a Site remedy that includes the following primary elements:

- Excavation and off-site treatment of shallow MGP source material at the former MGP to a depth of approximately 8 feet (ft).
- Removal of remnant MGP structures within remediation areas.
- In-situ solidification of MGP source material at, and adjacent to, the Site.
- Removal of NAPL from product recovery wells until the ISS is implemented.
- Bioremediation of a dissolved-phase groundwater plume downgradient of the MGP source areas.

A *Voluntary Cleanup Program Decision Document* was issued by the NYSDEC in March 2008 that approved the recommended remedy (NYSDEC, 2008). Planning and design of the ISS remediation and groundwater treatment systems were initiated in March 2008. The IRM portion, which involved excavation of shallow MGP source material outside the proposed ISS limits, was completed in December 2008. The product recovery portion of the IRM is ongoing.

Implementation of the ISS is intended to achieve the following goals:

- Encapsulate MGP source material in a low permeability monolith, significantly reducing the leaching of MGP constituents to groundwater.
- Eliminate or significantly reduce NAPL mobility by homogenizing it with surrounding soils and cementitious reagents.
- Enhance downgradient plume bioremediation by reducing contaminant dissolution to groundwater.

The groundwater treatment systems are intended to restore groundwater impacted by Site-related MGP contaminants via enhanced intrinsic bioremediation. The systems will provide additional oxygen to the contaminant plume, which will become available to hydrocarbon-degrading bacteria. This will cause an increase in the rates of intrinsic bioremediation of the dissolved contaminants in groundwater.

1.2 Site Description

The Site, shown on Figure 1-1, is located in the Villages of Hempstead and Garden City, Nassau County, New York. The majority of the approximately 8-acre Site is located within the Village of Garden City (Figure 1-2). The property is bordered to the north by Second Street, east by the inactive LIRR ROW, on the south by Intersection Street, and on the west by a park owned by the Village of Garden City. The park contains a public parking lot, two public water supply wells, and a recharge basin for those two wells. Residences and commercial businesses surround the Site, including a Professional Office Building to the southwest, an Active Oil Storage Terminal to the southeast, and an Inactive Petroleum Storage Facility to the southeast. An active National Grid natural gas regulator station is located within the northwestern portion of the Site.

The Site and surrounding area are generally flat with the ground surface gently sloping to the west, northwest, and southwest. The Site is predominantly covered with crushed stone and is secured with a perimeter fence. Limited grass, shrubs and trees serve as a buffer across the northern fence line. Other than gas piping in the regulator station and Site security fences, there are no permanent aboveground structures on the Site.

1.2.1 Previous Reports

Several investigations have been performed at the Site and on some of the adjacent properties to identify the presence of MGP impacts, determine the presence and extent of off-site MGP impacts, establish IRM boundaries, install NAPL recovery wells, and characterize the hydrogeology of the area. The November 2006 RI Report (PS&S, 2006) documents investigations that were performed prior to and during the RI. Since completing the RI, the following reports have been completed:

- Groundwater Sampling and NAPL Monitoring/Recovery Reports (URS Corporation):
 - Report for the Second and Third Quarters of 2007.
 - Annual Report for 2007.
 - Report for the First Quarter of 2008.
 - Report for the Second Quarter of 2008.
 - Report for the Third Quarter of 2008.
 - Annual Report for 2008.
 - Report for the First Quarter of 2009.
 - Report for the Second Quarter of 2009.
 - Report for the Third Quarter of 2009.
- IRM Remedial Action Work Plan (URS Corporation).
- Feasibility Study/Remedial Action Plan (URS Corporation).
- Pre-Design Investigation Work Plan for In-Situ Solidification and Off-Site Groundwater Treatment (URS Corporation.).

- Construction Operations Plan for Interim Remedial Measures (URS Corporation.).
- IRM Excavation Completion Report (URS Corporation).
- Off-Site Groundwater Remedial Design Report (URS Corporation).

Activities performed during these investigations have included test pit excavations, soil borings, installation of monitoring wells, air monitoring, sampling and analysis of soil, groundwater, soil gas, MGP waste, and other impacted materials, private well surveys, surveying and mapping, excavation of shallow MGP source material, and DNAPL recovery. Investigation locations from the previous investigations are shown in Figures 1-3, 1-4, and 1-5.

1.2.2 Geology and Hydrogeology

1.2.2.1 Geology

A thorough understanding of Site geology and hydrogeology has been developed from the previous investigations. In descending order (i.e., from ground surface down through the subsurface), the four primary geologic units present at the Site include:

- Fill/topsoil;
- Glacial Outwash;
- Upper Magothy formation; and
- Lower Magothy formation.

Fill/Topsoil

The fill/topsoil unit is present on and immediately adjacent to the Site. Topsoil is present in the northern and northwestern portions of the Site. Fill is present over much of the remainder of the Site and is highly variable in composition. It often consists of brown to black sands, silts and gravels with varying amounts of concrete, brick, coal, bluestone, clinker, vesicular slag and wood. The unit is not continuous throughout the Site and it ranges in thickness from approximately 0.5 to 16 ft where present. The fill/topsoil unit appears to be thickest in the central-western portion of the Site where building demolition debris was used to backfill building foundations (e.g., in the area of former drip oil tanks and receiving reservoir). A layer of gravel is

spread throughout much of the Site. In some areas, concrete foundations from the former MGP structures are present beneath the gravel.

The fill does not appear to extend a significant distance south of the Site. A thin layer of fill was observed at several soil borings located west of the Site within the Village of Garden City property.

Glacial Sediments

The geology of Long Island is formed by soil deposits that were left by the advance and retreat of glacial ice sheets. In general, these deposits thicken from north to south. Glacial sediments beneath the Site consist of three primary units: glacial outwash, the upper Magothy Formation, and the lower Magothy Formation.

Glacial Outwash

The uppermost glacial deposit beneath the Site is a relatively porous glacial outwash deposit consisting of yellow to light brown, fine to coarse sand with varying amounts of gravel. These sediments underlie the fill/topsoil and range in thickness from 60 to 70 ft within the Site to more than 95 ft south of the Site. Intermittent zones and lenses of silty sand and silt are present in the glacial unit and appear to limit the vertical movement of groundwater and NAPL.

Upper Magothy Formation

Underlying the glacial outwash sediments is the upper subunit of the Magothy Formation, which is characterized by a sequence of sand, silt, and clay layers. Its thickness ranges between 50 and 110 ft at the Site. Because of its diverse stratigraphy and the heterogeneous distribution of sediment types, the upper subunit is highly anisotropic with the vertical hydraulic conductivity several orders of magnitude less than the horizontal hydraulic conductivity.

Lower Magothy Formation

The lower subunit of the Magothy Formation, which is found at approximately 120 feet below ground surface (ft bgs) and below, is characterized by a low permeability silty fine sand

and stiff clay. Due to the high clay content of the lower subunit, it acts as an effective confining layer limiting the vertical migration of groundwater and NAPL.

1.2.2.2 Hydrogeology

The water table occurs within the glacial outwash sediments (Upper Glacial aquifer) at depths ranging from approximately 25 to 30 ft bgs. Groundwater flow within the glacial outwash is in a south-southwesterly direction at a hydraulic gradient of approximately 0.001 ft/ft.

Hydraulic conductivities of the Upper Glacial aquifer and the upper subunit of the Magothy Formation were estimated to be approximately 1×10^{-1} centimeter per second (cm/sec) and 1×10^{-2} to 5×10^{-2} cm/sec, respectively (McClymonds and Franke, 1972). Site-specific hydraulic conductivity testing, discussed in Sections 2.2.6 and 3.6, confirm these values.

The corresponding horizontal-to-vertical anisotropies of the Upper Glacial and Upper Magothy Formation are approximately 1:10 and 1:100, respectively (McClymonds and Franke, 1972). The lower subunit of the Magothy Formation is characterized by very low hydraulic conductivity of approximately 1×10^{-7} cm/sec (PS&S, 2006).

1.2.3 MGP Source Material

MGP source material, as defined for the Site, includes soil that is saturated with NAPL and visibly impacted soil that contains total PAHs greater than 1,000 milligrams per kilogram (mg/kg) or total BTEX greater than 50 mg/kg. The estimated limit of MGP source material established during the RI is shown in Figure 2-1.

1.2.4 Dissolved-Phase Groundwater Plume

The NAPL-saturated and near-saturated soils are sources of dissolved BTEX and PAHs in groundwater. This has resulted in a contaminated groundwater plume that extends approximately 3,800 ft downgradient of the Site in a southwesterly direction. The plume limits for this Site have been established where BTEX or total PAH concentrations are greater than or equal to 100 micrograms per liter ($\mu\text{g/L}$). With increasing distance from the Site, the plume sinks lower into

the aquifer. By about 1,500 ft downgradient of the Site, the plume is approximately 70 ft bgs and is overlain by uncontaminated groundwater.

Groundwater samples have been collected during the RI and on a quarterly basis since April 2007. The analytical data from these activities demonstrates that the dissolved-phase plume is stable and has reached its maximum extent.

During the RI field investigation performed in 2003, DO levels in groundwater wells located upgradient of the plume were compared with DO levels in wells located within the plume. The comparison indicated that lower DO levels were present in areas that coincide with the highest concentrations of total BTEX and PAHs. This was interpreted to indicate that active aerobic biodegradation of the contaminants was occurring in the contaminated groundwater. Enhancing the intrinsic microbial degradation of BTEX and PAHs is the goal of the groundwater remediation program.

1.2.5 Conceptual Site Model

The conceptual Site model describes the relationship between former MGP operations and the observations of physical impacts (i.e., NAPL, staining, sheen and odors), detected chemical constituents, migration pathways, and potential exposure pathways as identified through past Site investigations. The observed MGP-related NAPL and Site hydrogeologic conditions support the following conceptual Site model (PS&S, 2006).

1. NAPL associated with the former MGP Site is primarily a DNAPL that ranges from a thick tar-like substance to a more mobile, lower viscosity fluid. Following a release from a former structure, the NAPL accumulated in the shallow soils around source areas until the sorptive capacity of the soil was exceeded. The heavier tar-like NAPL remained in the shallow soils while the lower viscosity NAPL tended to migrate downward into the deeper soils.
2. The vertical, downward migration of NAPL from the near-surface source areas appears to have occurred via isolated and relatively thin vertical pathways. This conclusion is based on encountering significantly few instances of NAPL saturation in the soils from about 8 to 25 ft bgs.
3. The tendency for the DNAPL is to continue to migrate downward. However, at the Site, the downward migration of the NAPL was impeded when it encountered the

soils in the zone at and just above the water table (i.e., between approximately 25 to 30 ft bgs). In this zone, and where sufficient NAPL volume was available, the NAPL accumulated to saturated and near-saturated levels. Some NAPL penetration deeper into the saturated zone occurred beneath the former source areas where the volume of NAPL was greatest. However, a significant portion of the NAPL has preferentially migrated horizontally along the slope of the water table approximately 450 ft beyond the southern boundary of the Site beneath the Professional Office Building parking lot. This NAPL saturation extending south of the Site occurs as thin (0 to 6-inch thick) layers. Product recovery wells were installed in this zone in 2008 and 2009 and are used together with other wells to recover NAPL on a twice-a-month basis.

4. While the NAPL is primarily a DNAPL, its downward migration within the water table is likely limited by lateral groundwater flow, the sportive capacity of the soils, and limited volume of available NAPL. Consequently, it appears that NAPL has migrated horizontally along the water table as evidenced by only isolated observations of NAPL deeper in the water table, primarily beneath the source areas.
5. Because of the limited volume of available NAPL, the thickness of the NAPL-saturated soils decreases significantly away from the source areas. In particular, the thickness of NAPL-saturated soils off-site in the central potion of the Professional Office Building parking lot is typically less than a foot compared to multiple-feet near the southern Site property line.
6. There is no migration of MGP-related soil vapors from the off-site contaminants as evidenced by ambient air, soil gas, sub-slab, and indoor air sampling efforts at the Professional Office Building.
7. A dissolved plume is present in the groundwater and extends approximately 3,800 ft south of the Site. Monitoring data during the period 2000 to 2009 has indicated that the plume is stable and has not increased in size or concentration during this period.

1.3 In-Situ Solidification (ISS) Objectives

ISS will be conducted to achieve the following goals:

- Encapsulate MGP source material in a low permeability monolith, significantly reducing leaching of MGP constituents to groundwater.
- Eliminate or significantly reduce NAPL mobility by homogenizing it with surrounding soils and cementitious reagents.
- Enhance downgradient plume bioremediation by reducing contaminant dissolution to groundwater.

ISS will be used in areas that contain MGP source material and are too deep to be cost-effectively remediated by excavation and off-site treatment/disposal. The following criteria were used for determining the planned limits of the ISS:

- Soil saturated with NAPL was evaluated for solidification if the total vertical thickness of a NAPL-saturated soil zone exceeded 6 inches.
- Visibly impacted soil zones exceeding 6 inches were evaluated for solidification if the concentrations of PAHs were greater than 1,000 mg/kg or the concentrations of BTEX were greater than 50 mg/kg.

Implementation of ISS may be restricted in areas with limited access. In those areas, alternate methods of remediation will be considered.

1.4 Groundwater Treatment Objectives

A preliminary layout of the groundwater treatment systems was provided in the FS/RAP (URS, 2008b). The layout included two areas where delivery wells would be placed; one area located near Smith Street and the other area located south of Atlantic Avenue. The systems are intended to accelerate naturally occurring in-situ bioremediation of the dissolved-phase contaminants by indigenous microorganisms in the groundwater. Lower oxygen levels in the plume are the primary growth limiting factor for the contaminant (hydrocarbon)-degrading bacteria. To address this limiting factor, oxygen will be delivered at approximately 90 to 95 percent purity that will become available to aerobic, hydrocarbon-degrading bacteria. By using this technology, the rates of contaminant biodegradation can be increased by one to several orders of magnitude over the existing, non-stimulated rates.

1.5 Purpose of the Pre-Design Investigation

The PDI was performed to provide additional data to support design of the ISS remedial program and the groundwater treatment systems.

The PDI activities performed for the ISS design included:

- Refining the delineation of MGP-related source material.
- Collecting and analyzing soil samples for use in the ISS mix design testing.

- Performing bench-scale treatability testing and leaching assessments to develop a mix design that will achieve performance objectives for the Site (ongoing).
- Analyzing soil and groundwater samples from the plume for geochemical parameters that will be used in a groundwater model (ongoing).
- Slug testing in monitoring wells to obtain Site-specific hydraulic conductivity data that will be used in groundwater flow and contaminant mass transport models.
- Investigating the presence and limits of former MGP structures that would interfere with the ISS process.
- Verifying the locations of utilities within the proposed ISS areas.
- Geotechnical testing to provide data that will be used to evaluate excavation stability.
- Performing environmental forensic analysis of NAPL and NAPL-saturated soil samples.
- Preparing a groundwater flow model to predict the effects of the ISS remediation on groundwater flow in the vicinity of the solidified soil mass.
- Preparing a fate/transport model (ongoing) to predict the effects of the ISS remediation on reducing groundwater impacts.
- Preparing a leaching assessment model to predict the effects that the solidified soil mass will have on changing groundwater chemistry.

The PDI also was performed to acquire additional information to design the groundwater treatment systems that will deliver high-purity oxygen into the groundwater contaminant plume. The PDI included the following activities to support groundwater treatment design:

- Sampling of groundwater from temporary points installed in borings that were located in the vicinity of each proposed oxygen delivery system. The samples were analyzed for dissolved contaminants to determine the extent of the plume and to establish geochemical conditions associated with intrinsic remediation processes.
- Sampling and field screening of soils to evaluate stratigraphy and to provide samples for geotechnical testing.
- Installing monitoring wells that will be used to monitor groundwater conditions prior to and during operation of the systems.

2.0 INVESTIGATION PROGRAM

2.1 Overview

This section describes the field investigations and laboratory analyses that were performed during the PDI. Field work was conducted during the period of September 15, 2008 through September 28, 2009 and was performed concurrently with IRM source material excavation activities that were completed in December 2008.

Drilling and test pit excavation services were provided by Fenley & Nicol Environmental, Inc (F&N) and Zebra Environmental (Zebra). Standard laboratory chemical analytical services and fuel fingerprinting services were provided by H2M Laboratories (H2M). Environmental forensic analyses were performed by META Environmental, Inc. (META). Geotechnical analyses were performed by URS.

The field and laboratory work was performed in accordance with the *Sampling and Analysis Plan* (SAP), *Quality Assurance Project Plan* (QAPP), and *Community Air Monitoring Plan* (CAMP) that were included as Appendices A, B, and D in the *Pre-Design Investigation Work Plan for In-Situ Solidification and Off-Site Groundwater Treatment* (URS, 2008d). The SAP provided specific procedures for the various field investigation activities. The QAPP provided guidelines for field and analytical laboratory quality assurance/quality control procedures. The CAMP was implemented to provide real-time air monitoring data used to guide actions to reduce air emissions to acceptable levels, if needed.

2.2 ISS Pre-Design Investigation

The scope of the PDI included the following field and laboratory activities:

- **Source material limits investigation** - 120 soil borings were advanced to refine the delineation of MGP source material. Soil samples from some of these borings were analyzed to compare the data to MGP source material thresholds. Other miscellaneous soil analyses were performed due to elevated field screening measurements and odors detected in certain samples.
- **MGP structures investigation** - One test pit was excavated to investigate the limits of former MGP structures at the Site boundary.

- **Environmental forensics analysis** - Environmental forensic analyses were performed on one LNAPL and 9 contaminated soil samples to determine whether the contaminants were related to the former MGP, the Adjacent Oil Storage Terminal, or both.
- **Fuel Fingerprinting** - Fuel fingerprint identifications were performed on 8 soil samples that were collected from borings located in the vicinity of the Adjacent Oil Storage Terminal.
- **Geotechnical investigation** – One soil boring was advanced in the LIRR ROW to provide geotechnical data that will be used to evaluate excavation stability during implementation of the ISS remediation.
- **Bench-scale treatability study sampling** - Bulk soil samples were collected from 4 soil borings located within the NAPL-impacted area for use in ISS mix design testing and leaching assessment.
- **Hydraulic conductivity testing** - Slug tests were performed in 13 monitoring wells to obtain hydraulic conductivity data that will be used in groundwater flow and contaminant fate and transport models.
- **Aquifer geochemical testing** - 4 groundwater samples were analyzed to provide data for a geochemical model that will evaluate the capacity of the aquifer to buffer the alkaline solidified soil mass. One soil sample was analyzed to evaluate PAH-dissolved organic carbon interactions that may occur as a result of the alkaline solidified soil mass.
- **Groundwater sampling and analysis** - 15 borings were advanced and 102 groundwater samples were collected from temporary sample points located in the proposed areas of the groundwater oxygen delivery wells. Groundwater samples were analyzed to determine the concentration and extent of the contaminant plume, to characterize aquifer geochemistry relative to intrinsic remediation processes, and to support design of the oxygen delivery systems.
- **Soil geotechnical tests** - Soil samples collected from 3 borings were analyzed for grain size distribution, which will be used to size the openings of the oxygen delivery well screens.
- **Redevelopment of wells HIMW-08S/I** – Wells HIMW-08S/I were redeveloped to determine if low dissolved-phase contaminant concentrations observed in groundwater samples were a result of plugging of the well screens.
- **Well installations** – 2 monitoring wells were installed to refine the western limits of the dissolved plume along Atlantic Avenue and 6 product recovery wells were installed on the Site and in the vicinity of the Professional Office Building Parking lot.
- **Utility locating and surveying** - Utilities within the proposed ISS and groundwater treatment system remediation areas were verified and mapped. All investigation

points were surveyed and topographic maps were prepared for the ISS and groundwater treatment system areas.

Section 3 provides a discussion of field observations, measurements, and analytical results and discusses the results in relation to the proposed remedial technologies. Results of the bench scale treatability test and leaching assessment will be provided in a treatability study report that will be issued separately. Results of the aquifer geochemical testing will be presented in a leaching assessment report that will be issued separately.

2.2.1 Source Material Limits Investigation

The subsurface investigation was conducted to better define the limits of MGP source material in the horizontal and vertical directions. The following approach was used:

1. Each boring was manually pre-cleared to a depth of 5 ft before mechanical drilling was initiated.
2. The majority of borings were continuously sampled to their target depth. Forty three borings advanced at the end of the PDI program were not continuously sampled but instead targeted specific depth intervals to confirm the presence/absence of MGP impacts observed in adjacent borings.
3. The borings were advanced using direct-push drilling methods and soil samples were collected using 5-foot long acetate-lined Macro core samplers.
4. Soil core samples were visually examined and characterized for soil type and evidence of MGP impacts. Each sample was screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID) and for hydrogen sulfide (H₂S) and hydrogen cyanide (HCN) using a multi-gas meter.
5. Soil samples that exhibited visual impacts such as black staining, minor NAPL coating or blebs, or sheens on the soil were analyzed for BTEX and PAHs. The results were compared to the MGP source material concentration thresholds (50 mg/kg total BTEX and 1,000 mg/kg total PAHs).
6. If the soil samples exhibited no visual impacts, or if the samples contained NAPL saturation or heavy NAPL coating of the soil grains, analytical testing was not typically performed. Visual observations provided a clear indication of whether or not MGP source material was present.
7. Each soil boring was advanced approximately 10 ft below the deepest observed MGP-impacted soil sample.

A total of 120 soil borings were advanced to delineate the limits of the MGP source material (refer to Figure 2-1). Delineation borings were designated with the prefix “DGP” and numbered consecutively from DGP-201 through DGP-326 (Note that based on field observations, a few of the borings proposed in the PDI Work Plan were determined to be unnecessary and were not drilled. Additional consecutively numbered borings were added in other areas).

In addition to analyses of BTEX and PAHs, the following additional analyses were also performed for some of the soil samples:

- One soil sample was analyzed for Target Compound List (TCL) VOCs and semi-volatile organics (SVOCs) to confirm a “burned-plastic”-like odor that was detected in the field.
- Cyanide analysis was performed on 2 soil samples to evaluate HCN readings that were measured by the multi-gas meter.

The PDI Work Plan proposed advancing a minimum of 59 delineation borings and prescribed one or more additional “stepout” borings in areas where visibly impacted soils were encountered. The “stepout” borings were drilled outward from the original boring to locate the limits of MGP source material on properties that National Grid had access to. The number and locations of the stepout borings and the selection of soil samples for laboratory analysis were determined based on a review of the field data. The final locations of the stepout borings were selected based on factors that included the distance to the nearest clean boring, Site obstructions, physical access restrictions, and distances to property boundaries to which National Grid did not have access.

Each boring was tremie grouted with a cement/bentonite mixture upon completion. A log was developed for each boring that identifies soil types and descriptions, PID and multi-gas meter screening results, depth and changes in soil conditions, and observations of MGP-related residuals such as staining, odors, sheens, or NAPL. The logs are included in Appendix A.

DGP soil samples submitted for laboratory analyses are summarized in Table 2-1. Results and interpretations are discussed in Section 3.1.

2.2.2 MGP Structures Investigation

Implementation of ISS using deep soil mixing augers requires the removal of obstructions that would interfere with the augers prior to performing soil mixing. Typically, a shallow excavation program is implemented ahead of ISS to remove obstructions that would interfere with the mixing. Identification of the location and depth of former MGP structures, foundations, and utilities is necessary to determine the extent of pre-ISS demolition and removal that will be required and to allow for estimating potential demolition debris and excavation quantities for cost estimating and construction bidding.

One test pit (TP-105) was excavated at the beginning of the PDI field program. However, the remaining four test pits identified in the PDI Work Plan (designated TP-01 to -04) were not completed because frozen ground and cold weather inhibited operation of the excavation equipment.

The location of TP-105 is shown on Figure 2-1 and the test pit log is provided in Appendix A. A discussion of the subsurface conditions at TP-105 is provided in Section 3.2.

2.2.3 Environmental Forensics Analysis

META Environmental, Inc. performed environmental forensic analysis on analytical data from samples collected in the vicinity of the Site and the Adjacent Oil Storage Terminal. 22 soil samples and 5 NAPL samples were evaluated and are summarized below:

- 2 LNAPL samples, 2 DNAPL samples and 7 soil samples were collected and analyzed during the period August 2002 to April 2004. Analytical results, fuel fingerprinting, and environmental forensic interpretations for these samples were presented in the RI report (PS&S, 2006) and have been included in this report to provide a comprehensive forensic assessment of the MGP Site and adjacent bulk fuel storage facilities.
- 6 soil samples were collected during the period January 2008 to February 2008 as part of the IRM pre-design investigation.
- 1 LNAPL sample and 9 soil samples were collected during January 2009 as part of the ISS pre-design investigation.

A list of the samples is provided in Table 2-2 and Figure 2-2 identifies the sample locations. The samples were analyzed for hydrocarbon fingerprints by gas chromatography/flame ionization detection (GC/FID). Some of the samples were also analyzed for monocyclic aromatic hydrocarbons (MAHs), PAHs, and selected petroleum biomarker compounds by gas chromatography/mass spectrometry (GC/MS). META evaluated the results to determine if contaminants found in soil and NAPL may be attributed to releases from the former MGP Site or from bulk oil storage facilities located southeast of the Site, the approximate age of the contaminant and NAPL releases, and any similarities between materials that were detected. The detected hydrocarbons were also assessed to determine if they represent pyrogenic and/or petrogenic substances. Pyrogenic substances are primarily hydrocarbon mixtures that have undergone incomplete combustion. MGP coal tar products contain pyrogenic materials. Petrogenic substances include refined petroleum products that may have been used, handled, and stored at the former MGP, at adjacent bulk oil storage facilities, or at other nearby non-MGP operations.

Section 3.4 provides a summary of META's interpretations and includes a discussion of boring observations, chemical analytical data, and hydrogeologic conditions in the vicinity of the Adjacent Oil Storage Terminal relative to contaminant contributions from the MGP Site, the Adjacent Oil Storage Terminal, and other bulk oil storage facilities in the area. The environmental forensic report prepared by META is provided in Appendix B.

Environmental fuel fingerprint identifications were performed by H2M on samples collected from the following areas (refer to Figure 2-2):

- The eastern section of the Site that formerly contained oil tanks and a boiler room.
- The LIRR ROW west of the Adjacent Oil Storage Terminal.
- South of Adjacent Oil Storage Terminal along Sealey Avenue and east/northeast of the Former Mollineaux Brothers Fuel Co.

Analyses were performed using modified United States Environmental Protection Agency (USEPA) Method 8100 (GC/MS).

2.2.4 Geotechnical Investigation

Information on geotechnical soil properties will be used during design of the ISS mix(es), the temporary excavation support, utility protection measures, and the oxygen wells. To date, the majority of investigation borings that have been advanced utilized direct-push methods, which do not provide Standard Penetration Test (SPT) data that is useful for determining the relative density of in-situ soils. Some geotechnical information that was obtained during the 2003 RI and during the 2007/2008 IRM investigation is noted below:

- **RI** - soil samples were evaluated for moisture content, gradation, total organic carbon, and specific gravity from monitoring well borings HIMW-01, -02, -03, -06, -08, and -11.
- **IRM investigation** - SPT blow counts were recorded at four borings (GTB-1B, -2B, -3 and -4). Borings GTB-1B and -2B were located near the southern and northern edges, respectively, of a former receiving reservoir slab. This area was remediated during the recently completed IRM (Area B). Borings GTB-3 and -4 were located northeast of a boiler blowdown sump that was adjacent to the LIRR ROW. This area was also remediated during the recently completed IRM (Area E).

During the PDI, geotechnical testing was performed at borings that were drilled for ISS treatability study soil sample collection, for the evaluation of downgradient plume concentrations, and on the LIRR ROW. The test results will be used to design any temporary excavation supports, for the ISS treatability evaluation, and to design the oxygen wells. Results of the geotechnical investigation are discussed in Section 3.5. Boring logs are presented in Appendix A and the geotechnical test reports are provided in Appendix C.

ISS Treatability Study Borings

Borings ISS-01 through -04 were located within the MGP source material boundaries to provide soils for the ISS bench-scale treatability study. Boring ISS-01 was advanced to 70 ft bgs, ISS-02 to 36 ft bgs, ISS-03 to 50 ft bgs, and ISS-04 to 40 ft bgs. Each boring was drilled using hollow stem augers and SPT blow counts were recorded at continuous intervals (i.e., every 2 ft). Soil samples were analyzed for grain size distribution, moisture content, oil and grease, BTEX, and PAHs. Figure 2-1 shows the locations of borings ISS-01, -02, -03, and -04.

LIRR ROW Boring

Boring GTB-101 was located in the LIRR ROW. SPT values were recorded as the borehole was advanced and soil samples were submitted for analysis of organic content, specific gravity, grain size distribution and moisture content. The location of GTB-01 is shown on Figure 2-1.

Downgradient Plume Characterization Borings

Soil samples from the 50–54 ft and 70-74 ft intervals from plume delineation borings HISB-102, -106, and -108 were analyzed for moisture content and grain size distribution. The data will be used to select screen opening sizes for the oxygen delivery wells. 2 soil samples from HISB-106 (35'–45' and 65'–85') were also analyzed for organic content and specific gravity. These results will be used in the leaching assessment that will be performed by Vanderbilt University.

2.2.5 Bench-Scale Treatability Study Sampling

Bulk soil samples were collected from 4 borings, ISS-01, -02, -03, and -04. These source area samples will be used in an ISS treatability study that will evaluate various cementitious reagents and other additives that may be used to immobilize MGP related contaminants. The borings represent four locations that exhibit a range of soil characteristics and NAPL saturation levels within the area to be remediated by ISS (refer to Figure 2-1). The treatability study will identify a mix design(s) and mix strength(s) to be used for the source area remediation and will provide leaching rates of target constituents for solidified soils. These will be incorporated into a groundwater fate and transport model to assess the benefits of ISS on the downgradient plume.

Soil samples for ISS were collected using hollow-stem auger drilling. During advancement of the augers, continuous split-spoon samples were collected and SPT blow counts were recorded. Soil samples were visually characterized to describe soil type and MGP-impacts. The treatability test samples were collected from the drill rig auger flights from the following depth intervals:

- ISS-01 (25 to 70 ft)

- ISS-02 (10 to 35 ft)
- ISS-03 (10 to 50 ft)
- ISS-04 (20 to 40 ft)

The sample collection method produced a vertical composite of the soil column that will be treated at each location, similar to the mixing effect that the augers will have during ISS. A total of four full 5-gallon buckets of soil were collected from each location. The soils from each location were blended in the field to minimize heterogeneities prior to filling the buckets. The buckets were shipped to the treatability testing laboratory (Remedius, LLC) in Amarillo, Texas for further characterization and mix design evaluation.

Soil samples from each ISS boring were also submitted to H2M for analysis of BTEX, PAHs, oil & grease, and moisture content (see Table 2-3).

The results of the treatability study will be presented in a separate report and will also be used in the contaminant transport model.

2.2.6 Hydraulic Conductivity Testing

Hydraulic conductivity is a measure of an aquifer's ability to transmit water. The velocity of groundwater and dissolved contamination is directly related to the hydraulic conductivity of the saturated zone. In addition, subsurface variations in hydraulic conductivity directly influence contaminant fate and transport by providing preferential pathways for contaminant migration.

During the PDI, slug tests were performed on 13 wells to determine Site-specific hydraulic conductivity values for the shallow, intermediate, and deep water-bearing zones at the Site and downgradient of the Site. The slug tests were performed by introducing a length of solid PVC pipe (i.e., slug) into each well and recording the hydrostatic head in the well with a pressure transducer as it dropped to the pre-testing level (i.e., falling head test). Once the water level stabilized, the slug was removed and the hydrostatic head was monitored as it rose to pre-testing level (i.e., rising head test). The data from the pressure transducer was downloaded to a computer and was evaluated using the Bouwer and Rice method of analysis (Bouwer and Rice, 1976). Wells that were tested are listed in Table 2-4 and shown on Figures 1-5 and 2-3. Hydraulic

conductivity results are discussed in Section 3.6 and Appendix D provides the data and calculations.

2.2.7 Geochemical Testing for Leaching Assessment

Groundwater and soil analyses were performed to provide data that will be used in a geochemical model that will be prepared by Vanderbilt University. The geochemical model to be used is the LeachXS (Leaching eXpert System) database/decision support system, which was developed by Vanderbilt University, the Energy Research Center of the Netherlands (ECN-Netherlands), and DHI Water and Environment (Denmark). Modeling results will be evaluated to assess potential changes in aquifer geochemistry in the vicinity of the Smith Street oxygen wells and evaluate the capacity of the aquifer to buffer the pH increase caused by the addition of alkaline solidification reagents (i.e., cement).

Table 2-5 identifies the 4 groundwater samples and soil sample that were analyzed and the tests that were performed. Test results will be presented in a leaching assessment report that will be issued separately.

2.3 Groundwater Treatment System Pre-Design Investigation

2.3.1 Groundwater Sampling and Analysis

One hundred and twenty two (122) groundwater samples were collected and analyzed to determine the concentration and extent of the contamination plume and to document the occurrence of intrinsic remediation.

2.3.1.1 Overview

Since April 2007, groundwater samples have been collected and analyzed for BTEX and PAHs on a quarterly basis to track the dissolved-phase contaminant plume and to augment data provided in the RI report. The samples were collected from 19 monitoring wells.

During the PDI, direct-push soil borings were advanced at various locations near or adjacent to the proposed oxygen delivery wells. Groundwater samples were collected from

predetermined intervals within each boring using a Geoprobe® Screen Point 22 (SP22) groundwater sampler, which is a direct push device designed for obtaining grab samples of groundwater in unconsolidated materials. The SP22 utilizes a 4-foot long by 0.65-inch inside diameter by 0.004 ft slotted stainless steel screen. The tool is sealed in a steel sheath and driven to the desired depth for deployment and sampling. The end of the screen is equipped with a knock out grout plug that enables the hole to be grouted as the sampler is retrieved. All borings were grouted at completion.

Groundwater samples were collected from 6 locations along the proposed alignment of the oxygen wells at Smith Street and at 9 locations along the proposed alignment of the oxygen wells along Atlantic Avenue and in Mirschel Park (refer to Figure 2-3). All samples, except from borings HISB-102(2), -105 (2) and -116, were collected using a ‘top to bottom method’ that involved successively sampling at deeper intervals. During each deployment, the sampler was retrieved, cleaned, and driven to the next (deeper) interval. This method was used to minimize possible cross-contamination between sampling materials. A “bottom to top” method was used at HISB-102 (2), -105 (2), and -116, which were located adjacent to HISB-102 and -105, to check variability between the methods. After comparing the two methods the bottom to top sampling method was also determined to be acceptable. The groundwater samples were analyzed for BTEX, PAHs, pH, conductivity, and attenuation parameters (DO, oxidation reduction potential [ORP], alkalinity, nitrate/nitrite, ortho-phosphate, and ferrous iron). Sample depths and analyses performed are listed in Table 2-6. Groundwater purge logs are provided in Appendix E. Appendix G contains a Data Usability Summary Report (DUSR) that was prepared following the guidelines provided in NYSDEC Draft DER-10, *Technical Guidance for Site Investigation and Remediation, Appendix 2B – Guidance for the Development of Data Usability Summary Reports* (NYSDEC, 2009c). The DUSR presents groundwater data from the temporary sampling points and from select wells that were sampled during the PDI to establish plume limits. The DUSR included a review of holding times; completeness of all required deliverables; quality control (QC) results (blanks, instrument tunes, calibration standards, matrix spike recoveries, duplicate analyses, and laboratory control sample recoveries) to determine if the data were within the protocol-required QC limits and specifications; a determination that all samples were analyzed

using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Groundwater samples from monitoring wells HIMW-12S, -12I, -13S, and -13I were analyzed by H2M Laboratories for BTEX, PAHs, and alkalinity. Samples from these wells were also analyzed for dissolved organic and inorganic carbon and for anions/cations by Vanderbilt University.

The groundwater data is discussed in Section 3.7.1 and will be further evaluated during design of the oxygenation systems to establish the number and spacing of oxygen wells, the need for nutrient addition, and maintenance requirements. The data from HIMW-12S, -12I, -13S, and -13I will also be incorporated into the geochemical model prepared by Vanderbilt University.

2.3.1.2 Intrinsic Remediation Processes

Biodegradation of BTEX and PAHs from MGP sites brings about measurable changes in the chemistry of groundwater in the affected area. By measuring these changes, the presence of intrinsic remediation at the Site can be verified.

Biodegradation of BTEX and MGP-related PAHs occurs when subsurface microorganisms use the contaminants as a primary substrate (electron donor). During biodegradation, microorganisms transform available nutrients into forms useful for energy and cell production by facilitating the transfer of electrons from donors to acceptors. This results in oxidation of the electron donor and reduction of the electron acceptor. The process is limited by electron acceptor availability with oxygen used first as the prime electron acceptor (aerobic respiration), followed by nitrate (nitrate reduction), ferric iron oxyhydroxide (iron reduction), sulfate (sulfate reduction), and carbon dioxide (methanogenesis). This process is summarized below.

**Trends in Contaminant, Electron Acceptor, Metabolic Byproduct, and Total Alkalinity
Concentrations During Biodegradation (Adapted from Weidemeier, *et al.*, 1999)**

Analyte	Terminal Electron Accepting Process	Trend in Analyte Concentration During Biodegradation
BTEX	---	Decreases
DO	Aerobic Respiration	Decreases
Nitrate	Denitrification	Decreases
Ferrous Iron	Iron (III) Reduction	Increases
Sulfate	Sulfate Reduction	Decreases
Methane	Methanogenesis	Increases
Alkalinity	Aerobic Respiration, Denitrification, Iron (III) Reduction, and Sulfate Reduction	Increases

DO is the most favored electron acceptor used in the biodegradation of BTEX and MGP-related PAHs. 1.0 milligram per liter (mg/L) of DO consumed by microbes (obligate aerobes or facultative anaerobes) will destroy approximately 0.32 mg/L of BTEX (Weidemeier, *et al.*, 1999). During aerobic biodegradation, DO concentrations decrease. Typically, aerobic biodegradation does not occur below 2 mg/L of DO. Anaerobic bacteria (obligate anaerobes) generally cannot function at DO concentrations greater than about 0.5 mg/L.

Once available oxygen is depleted, anaerobic conditions will dominate the interior regions of the plume. Under these conditions, facultative or obligate anaerobic microorganisms can utilize other electron acceptors in the following order of preference: nitrate, ferric iron, sulfate, and carbon dioxide. Nitrate is used as an electron acceptor for anaerobic biodegradation via denitrification. 1.0 mg/L of ionic nitrate consumed by microbes results in the destruction of approximately 0.21 mg/L of BTEX (Weidemeier, *et al.*, 1999). In some cases, ferric iron is used as an electron acceptor. During this process ferric iron (Fe^{+3}) is reduced to ferrous iron (Fe^{+2}), which may be soluble in water. Ferrous iron concentrations can thus be used as an indicator of anaerobic degradation. The degradation of 1.0 mg/L of BTEX results in the production of approximately 21.8 mg/L of ferrous iron (Weidemeier, *et al.*, 1999).

The total alkalinity of a groundwater system is indicative of the water's capacity to neutralize acid. Alkalinity results from the presence of hydroxides, carbonates, and bicarbonates of elements such as calcium, magnesium, sodium, potassium, or ammonia in groundwater. In general, areas contaminated by BTEX and MGP-related PAHs exhibit total alkalinity concentrations that are higher than in background areas. Each 1.0 mg/L of alkalinity produced by microbes results from the destruction of approximately 0.13 mg/L of total BTEX (Weidemeier, *et al.*, 1999).

The ORP of groundwater is a measure of the electron activity and is an indicator of the relative tendency of the groundwater to accept or transfer electrons. Oxidation/reduction reactions in groundwater contaminated with BTEX and MGP-related PAHs are typically biologically mediated and, as a result, the ORP of the groundwater system depends upon and influences the rates of biodegradation. Knowledge of the ORP of groundwater is important because some biological processes operate only within a prescribed range of oxidation/reduction conditions. The ORP of groundwater typically ranges from -400 millivolts (mV) to 800 mV. ORP data can be used to determine the location of the contaminant plume, especially in areas undergoing anaerobic biodegradation.

The pH of groundwater has an effect on the presence and activity of microbial populations in groundwater. Enhanced bioremediation of BTEX and MGP-related PAHs can be effective over a pH range of 5 to 9 standard units (USEPA, 2004).

The activity of microbial populations and the corresponding biological oxygen demand depend on the availability of inorganic nutrients such as nitrogen and phosphate to support cell growth and sustain biodegradation processes. The USEPA recommended carbon: nitrogen: phosphorus ratios necessary to enhance biodegradation fall in the range of 100:10:1 to 100:1:0.5 (USEPA, 2004). However, although nutrients such as nitrogen and phosphorous are essential for biodegradation of organic contaminants by microorganisms, the influence of inorganic and organic nutrients on in situ biodegradation varies substantially, and in some cases, the addition of nutrients to the subsurface environment has been shown to have little or no effect on biodegradation rates of hydrocarbons (Swindoll *et al.*, 1988; Miller, 1990).

2.3.2 Soil Sampling and Analysis

Eight (8) soil samples collected from borings HISB-102, -106, and -108 were analyzed for grain size distribution to size the openings of the proposed oxygen delivery well screens. Each sample was visually examined and characterized for soil type and evidence of MGP impacts. PID field screening readings were also performed on each sample. Boring logs were prepared that provide soil descriptions, PID screening results, depth and changes in soil conditions, groundwater sample depths, and observations of MGP-related residuals such as staining, odors, sheens, or NAPL. The grain size data and logs are discussed in Section 3.7.2. The logs are provided in Appendix A.

2.3.3 Well Installations

Monitoring well couplet HIMW-20S/I was installed on the north side of Atlantic Avenue near the intersection of Hilton Avenue (refer to Figure 2.3) to provide additional data on the western limits of the contaminant plume in that area.

Wells HIMW-21 and IPR-26, -27, -28, -29, and -30 were installed to supplement the existing IPR well network and for NAPL recovery.

The wells were installed using hollow stem augers and constructed with polyvinyl chloride (PVC) well screens and risers. Well construction information is summarized on Table 2-7 and construction logs are provided in Appendix A.

2.4 Redevelopment of Wells HIMW-08S/I

Since April 2007, the groundwater analytical results for samples collected from well couplet HIMW-8S/I indicated unexpectedly low concentrations of BTEX and PAHs. These wells are located immediately south of the Professional Office Building parking lot and are close to the southern limit of where MGP source material has been observed. Both wells were redeveloped to remove all stagnant water from well casing storage and to determine if sediment buildup in the wells and on the well screens was the cause for the unexpectedly low concentrations. The results are discussed in Section 3.7.1.2.

2.5 Community Air Monitoring

2.5.1 Overview

Community air monitoring was performed to prevent and/or mitigate potential short-term emissions and off-site migration of Site-related airborne contaminants during the excavation of test pits, hollow-stem auger drilling, and direct-push soil and groundwater sampling.

Monitoring during the PDI consisted of: air monitoring to evaluate the health and safety of persons working within the exclusion zone, and community air monitoring conducted upwind and downwind of each work location. Air monitoring was performed for total volatile organic compounds (TVOCs), particulate matter less than 10 micrometers in size (PM₁₀), HCN gas, and H₂S gas.

During hollow stem auger drilling and test pit excavation, a full community air monitoring setup was employed in which air monitoring was performed using portable data logging instruments (for TVOCs and particulate) placed on moveable tripods. Continuous measurements were taken for these monitored parameters. Periodic measurements were also taken with hand-held instruments for HCN and H₂S at upwind, exclusion zone, and downwind locations of each work area. The exclusion zone and downwind fifteen minute average concentrations (TVOCs and PM₁₀) and periodic measurements (HCN and H₂S) were compared to alert and action levels that are identified in Section 2.5.2.

Community air monitoring performed during direct-push soil and groundwater sampling consisted of periodic measurements taken with hand-held instruments at upwind, exclusion zone, and downwind locations of each work area. The exclusion zone and downwind measurements were compared to alert and action levels that are identified in Section 2.5.2.

For all activities and work locations, upwind levels were measured to establish background conditions. The upwind monitoring locations were positioned at least 25 feet from the intrusive activity. The monitoring equipment in use was calibrated daily.

Community air monitoring data is discussed and summarized in Appendix F.

2.5.2 Alert and Action Levels

Alert and action levels established for the CAMP are summarized below. The alert levels were used as a screening tool (if necessary) to trigger mitigation measures within the work area before reaching an action level. The alert levels do not indicate a potential health hazard, but were used to trigger changes in work zone activities prior to reaching an action level. The action levels were defined as concentrations that triggered work stoppage.

Target Compound	Alert Level	Action Level
TVOCs <ul style="list-style-type: none">15-minute average levels (test pit excavation, hollow-stem auger drilling, and well installation)Periodic measurements (direct-push soil and water sampling, groundwater sampling)	2.5 ppmv above the upwind level (50% of the DER-10 TVOC action level) (NYSDEC, 2009c) ⁽¹⁾	5.0 ppmv above the upwind level
<u>Particulate Matter (PM₁₀)</u> <ul style="list-style-type: none">15-minute average levels (test pit excavation, hollow-stem auger drilling, and well installation)	100 ug/m ³ above the upwind level ⁽²⁾	150 ug/m ³ above the upwind level

Target Compound	Alert Level	Action Level
<ul style="list-style-type: none">Periodic measurements (direct-push soil and water sampling, groundwater sampling)		
<u>HCN</u>	None	1.0 ppmv above the upwind level.
<ul style="list-style-type: none">Periodic measurements – all intrusive activities.		

Notes:

(1) ppmv – parts per million (volume basis)

(2) ug/m³ – micrograms per cubic meter

H₂S was monitored to evaluate potential interference from sulfur compounds for any detected HCN. There were no alert or action levels for H₂S.

2.5.3 Instrumentation

Monitoring for TVOCs was performed using Rae Systems MiniRAE 2000 Portable Ionization detectors. Particulate monitoring was performed using TSI DustTrak portable real-time aerosol monitors equipped with a PM₁₀ impactor and internal sampling pump. HCN and H₂S monitoring was performed using a MultiRAE PLUS PGM-50 Monitor (multi-gas meter) outfitted with HCN and H₂S sensors. All monitoring results were documented in a Site logbook.

2.6 Utility Locating and Surveying

The locations of above ground and underground utilities were determined by inspecting drawings that were available from the following sources:

- Incorporated Village of Hempstead; Engineering Department, Parks and Recreation Department, Building Department, Public Works Department, and the Major's Office.
- Incorporated Village of Garden City; Public Works Department and Engineering Department.
- National Grid, Gas Field Operations Department.

The locations of utilities in the investigation areas were marked using a 'one-call' service. Utility locating and surveying activities were also performed at the Site as noted below.

- The PDI locations were marked in the field by surveying.
- The completed exploration locations were surveyed and placed on a base map of the Site and surrounding properties.
- Storm drain and sanitary sewer manholes within the proposed remediation areas were visually inspected to determine the depths and alignments of pipes between the manholes.

The topographic survey was performed using a Real Time Kinematic Geographic Positioning System (GPS) that has an expected positional accuracy of ± 0.1 ft horizontally and vertically. The vertical datum was referenced to North American Vertical Datum 1983 (NAD 83) and the horizontal datum was referenced to US State Plane 1983, New York Long Island zone. All monitoring well measuring point elevations were established by differential leveling that has an accuracy of ± 0.01 ft. Top of casing elevations from existing monitoring wells at the Site were used as datum for the differential leveling.

3.0 INVESTIGATION RESULTS

3.1 ISS Pre-Design Investigation Results

The MGP source material limits were determined by evaluating the visual observations described on boring logs and by reviewing analytical results for soil samples from the borings. The data set used for this interpretation included boring logs and analytical data generated during the various phases of the Site investigations, as well as supplemental delineation borings and soil analytical data generated as part of the PDI.

As previously indicated, MGP source material defined for the Site includes soil that is saturated with NAPL, or visibly impacted soil that contains total PAHs greater than 1,000 mg/kg or BTEX greater than 50 mg/kg. Prior assessment of Site characterization data performed during preparation of the FS/RAP indicated that soils exhibiting visual characteristics of NAPL saturation or heavily NAPL-coated typically exhibited BTEX and/or PAH concentrations greater than the MGP source material concentration thresholds described above.

For soils exhibiting some black staining, minor NAPL coating, blebs, or sheens on the soil, analytical characterization results were mixed, with some samples with these characteristics above the concentration threshold while others were not. The following approach from the NYSDEC approved PDI Work Plan was used to determine the limits of MGP source material in the horizontal direction:

1. All soil boring samples were visually examined and characterized for soil type and evidence of MGP impacts.
2. If the soil exhibited no visual impacts, or if the soil contained NAPL saturation or heavy grain coating of NAPL, analytical samples were generally not collected as the visual observations provide a clear indication of whether clean soil or MGP source material was present.
3. If the soil exhibited visual impacts characterized as black staining, minor NAPL coating or blebs, or sheens on the soil, then a sample was generally collected for BTEX and PAH analysis for comparison to the source material concentration thresholds.

4. In those instances where visible impacts were observed that included NAPL coatings and an analytical sample was not obtained, that location was conservatively assumed to have MGP source material.

Figure 3-1 presents a summary of the interpretation of the MGP source material delineation for the entire Site. Figures 3-2 through 3-6 provide larger scale presentations of the visual observations and analytical data that were used to establish the MGP source material remediation limits depicted on Figure 3-1. In addition, the overall cumulative thickness of MGP source material is depicted in Figure 3-7. The PDI soil analytical results are summarized in Table 3-1. The assessment of the limits of remediation is discussed in the report sections that follow.

3.1.1 Professional Office Building/Wendell Street

As shown on Figure 3-2, MGP source material extends to the west side of Wendell Street and under the southern portion of the Professional Office Building. This area is on the western edge of the MGP DNAPL plume. Impacts meeting the MGP source material thresholds were observed at boring locations DGP-205, -206, -207 and -278, which are at or beyond the west side of Wendell Street. Minor staining and/or NAPL coating of soil grains were observed in borings DGP-277, HISB-48, and DGP-280 indicating that MGP impacts extend under the building. These impacts generally occur in the vicinity of the water table surface between 25 and 30 ft bgs.

At boring location DGP-205, four discrete 1-inch to 6-inch thick lenses of MGP saturation were observed at the interval of 27 to 30 ft bgs in seams of medium to coarse sand and gravel, separated by silty sand lenses. At DGP-206, moderate NAPL coatings were observed in the 25 to 28 ft bgs interval. At DGP-207, three 4-inch thick lenses of NAPL saturation were observed in the 25 to 28 ft bgs interval. At DGP-208, light NAPL coating of soil was observed at 28.5 to 29 ft bgs and a ½-inch thick lens of NAPL saturation was also observed in this interval. Analytical results for a sample from DGP-208 (28.5 to 30 ft bgs interval) were below the source material concentration thresholds.

As stated above, the MGP impacts adjacent to, and likely beneath, the southern portion of the Professional Office Building are generally greater than 25 ft bgs. The water table in this area is approximately 28 to 30 ft bgs. Four vapor intrusion assessments were performed by KeySpan

in December 2007 to evaluate the potential for vapors from subsurface MGP impacts to affect indoor air quality in the Professional Office Building. The results of the assessments were previously provided to the building owner, NYSDEC, NYSDOH, and NCDH. The assessments included the collection of indoor air, outdoor air, and sub-slab soil vapor samples that were analyzed for VOCs. The basement of the Professional Office Building is finished and contains medical and other offices and some storage and utility rooms. The results of the soil vapor intrusion assessments showed that there was no apparent vapor intrusion into the building from MGP-related compounds. These results are consistent with soil vapor intrusion testing results for other nearby buildings, and consistent with other soil vapor intrusion investigations at other National Grid MGP sites on Long Island. These findings are also consistent with several other investigations that have evaluated the potential for vapor intrusion at former MGP sites including data collected by the Electric Power Research Institute.

Given the active occupancy and use of the Professional Office Building, remediation of MGP impacts beneath the building would be difficult due to access limitations and extra inconvenience to the businesses that occupy the approximately 50 professional offices. Some of the activities inside the Professional Office Building include sensitive medical procedures. Based on the delineation completed as part of this PDI, it is concluded that the MGP impacts near the Professional Office Building are well below the building, are primarily thinner seams of NAPL-coated or NAPL-saturated lenses within a 0.5 to 3 ft thick zone, are not a vapor intrusion concern, and are on the western edge of the DNAPL plume.

3.1.2 LIRR Right-of-Way, East of the Professional Office Building Parking Lot

As shown on Figure 3-2, visible MGP impacts in the soil extend onto the LIRR ROW and east onto private property located at 63 Smith Street. MGP source materials were observed in borings HISB-47, DGP-262, DGP-261, DGP-321, and DGP-322. NAPL was observed in a 1-foot thickness from 32 to 33 ft bgs at HISB-47. Some NAPL coatings were observed in borings DGP-263 and DGP-211. However, analytical results from impacted zones were below the MGP source material concentration thresholds. At boring DGP-262, NAPL-saturated lenses were observed from 32.5 to 33.5 ft bgs and light NAPL coatings were observed from 25 to 30 ft bgs. At DGP-261, NAPL-saturated lenses and NAPL coatings were observed between 33 and 35 ft

bgs. East of the LIRR ROW at DGP-322 moderate to heavy NAPL staining was present in soils from 30 to 31.5 ft bgs and NAPL saturated soils were observed at 31.5 to 32 ft bgs. Moderate to slight sheens with naphthalene-like odors extended to 38 ft bgs. Analytical results were above the MGP source material concentration thresholds for a sample collected from 30 to 32 ft bgs. At DGP-321, moderate to heavy NAPL coatings, NAPL blebs and a sheen were observed from 32 to 33 ft bgs. Analytical results were above the MGP source material concentration thresholds for a sample collected from 32 to 33 ft bgs at DGP-321. At DGP-213, NAPL-saturated soils were observed from 30 to 34 ft bgs. Northeast of DGP-213, an area absent of visual MGP impacts was encountered at boring DGP-214 that may extend northward into the Professional Office Building parking lot (minor staining observed in boring HISB-39). Moving farther northeast along the LIRR ROW towards Intersection Street, some NAPL coatings and staining were observed at borings HISB-70 and DGP-217; however, analytical results were below the MGP source material concentration thresholds at these borings (refer to Figure 3-3).

For the purpose of implementing ISS, the limits of MGP source material have been established within this area except for a relatively small area east of DGP-321. One additional boring will be drilled on the 63 Smith Street property to establish the source material limits in this area.

3.1.3 Village of Garden City Property

MGP-related impacts west of the former MGP Site have been delineated and are shown on Figures 3-1, 3-3, and 3-5.

3.1.4 Northern Remediation Limits

The northern limits of remediation are shown on Figures 3-1, 3-5, and 3-6 and have been delineated to the limits of the MGP source material.

3.1.5 LIRR Right-of-Way, East of MGP Site, North of the Adjacent Oil Storage Terminal

Two discrete areas of MGP source material were delineated at the eastern end of the Site as shown on Figures 3-1 and 3-6. MGP source material in the vicinity of borings HIMW-02 and

HISB-13 is primarily shallow (within the top 1-foot of soil) that will require removal by excavation. The southwestern limit is between impacted borings DGP-221 and HISB-44 and clean borings HISB-43, OSMW-1, and DGP-223. NAPL impacts were encountered at DGP-221 between 12 and 22 ft bgs and at HISB-44 between 20 and 26 ft bgs. Moving northeasterly to the southern limit of IRM excavation Area E (completed in December of 2008), there are MGP source material impacts below the completed excavation bottom of 5 ft bgs. MGP impacts in this area appear to extend to at least 13 ft bgs (although a number of these borings did not extend to the water table), and a bit deeper at boring DGP-220.

3.1.6 LIRR Right-of-Way, East of MGP Site, West of Adjacent Oil Storage Terminal

The limits of MGP source material at the LIRR ROW west of the Adjacent Oil Storage Terminal are shown on Figure 3-1 and Figure 3-4 and extend to the western property line of the terminal. At borings HIMW-11, HISB-42, OSMW-2, and OSMW-3, NAPL impacts are present that may be in part due to the former MGP and possibly extend under the Adjacent Oil Storage Terminal. However, as discussed below in Section 3.4, significant petroleum releases from the terminal operations have occurred on that property that appear to present a significant impact and at a shallower depth than the MGP-related impacts.

3.1.7 LIRR Right-of-Way at Intersection Street

Borings HISB-70, DGP-217, HISB-40, -110, and -112 define the limits of MGP source material as shown on Figures 3-1, 3-3, and 3-4. Borings HISB-70, DGP-217, HISB-110, and -112 contain NAPL coatings on soil grains. However, the soil analytical results are below the MGP source material threshold criteria. Additionally, moving east of the LIRR ROW along Intersection Street, the impacts transition from MGP and heavy petroleum distillate impacts (which could be MGP or non-MGP derived) to petroleum impacts likely related to the Adjacent Oil Storage Terminal (a discussion of environmental forensic interpretations in this area is presented in Section 3.4).

At boring HISB-40, NAPL saturation was observed at 32 to 36 ft bgs and at 40 to 42 ft bgs and the BTEX and PAH concentrations were above the source material concentration thresholds.

This area is adjacent to the former Mollineaux Brothers Fuel Terminal and may contain mixed MGP and non-MGP impacts. The MGP remediation limits for this area are identified at the southeastern limits of the LIRR ROW.

3.2 MGP Structures

One test pit (TP-105) was excavated in the area of the former gas generator house in the eastern portion of the Site and is shown on Figure 2-1. The test pit was approximately 20 ft long by 5 ft wide by 9 ft deep. The upper 4 ft consisted of fill comprised of dark brown loamy soil with varying amounts of sand, gravel, ash-like material, brick, black cinders, concrete and metal. A concrete block (approximately 2 ft³) and a deteriorated clay sewer drain were encountered at 4 ft bgs. The fill was underlain by natural deposits consisting of brown fine to coarse sand with fine to coarse gravel that became gray-colored with depth. No structures were encountered. The test pit log is provided in Appendix A.

While the test pit did not encounter any competent subsurface structures, the presence of coarse materials such as large blocks of concrete could impact advancing the mixing augers during ISS and would have to be removed beforehand.

3.3 Miscellaneous Soil Analytical Results

3.3.1 Sample DGP-203

A non-MGP odor was noted while drilling DGP-203, which is located on the west side of Wendell Street in front of the Professional Office Building. The odor was described as “burned-plastic” and was associated with a soil core sample taken from 35 to 39 ft bgs. Because of the apparent non-MGP nature of the odor, a soil sample was submitted for analysis of TCL VOCs and SVOCs. Results are presented on Table 3-2 and detected compounds are summarized below.

Compound	Concentration (µg/kg)	Data Qualifier	NYS Part 375 Protection of Groundwater Standards (µg/kg)
Acetone	7	J – estimated value	50
Styrene	4	J – estimated value	Not listed
Toluene	4	J – estimated value	700

**PRE-DESIGN INVESTIGATION REPORT
FOR IN-SITU SOLIDIFICATION AND
OFF-SITE GROUNDWATER TREATMENT**

**HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE**

Compound	Concentration (µg/kg)	Data Qualifier	NYS Part 375 Protection of Groundwater Standards (µg/kg)
Xylenes (total)	6	J – estimated value	1,600
2-Methylnaphthalene	180	J – estimated value	Not listed
Naphthalene	390		12,000

As indicated above, all detected compounds exhibited low concentrations that were below the New York State criteria for the protection of groundwater (NYSDEC, 2006).

3.3.2 Samples DGP-234 and DGP-257

HCN field screening measurements were recorded from soil core samples taken from DGP-234 and DGP-257. The HCN field measurements were taken with the multi-gas meter (MultiRAE PLUS PGM-50 monitor) that incorporated a HCN-specific sensor (range 0-100 ppm and resolution 1.0 ppm). Field screening results are summarized below and on the soil boring logs presented in Appendix A.

Location	Depth (ft bgs)	Soil Description	HCN Field Measurement (ppm)
DGP-234	30-39	Fine to coarse sand, trace gravel, faint naphthalene-like odor.	2 to 9
DGP-257	45-50	Fine to coarse sand, trace/some gravel.	0.5 to 1.7

Based on these field screening measurements, two samples from the intervals with the highest field screening results (i.e., one from 38-39 ft for DGP-234 and another from 40-50 ft for DGP-257) were submitted for analysis to determine; 1) if cyanide was present in the soil, and 2) if the detected cyanide was present as free cyanide or as metal cyanide complexes (metal cyanide complexes are stable and not known to be a toxicological concern). Analysis for total cyanide was performed on the 38 to 39 ft. sample from DGP-234 because this interval produced the highest HCN field screening measurement. BTEX and PAH analyses were also performed on this sample. BTEX and PAHs analysis was also performed on a 23 to 25 ft. sample from DGP-234, while total cyanide was not analyzed because relatively low field screening measurements were recorded for this interval. One sample from DGP-257 (40 to 50 ft.) was analyzed for total

cyanide, BTEX, and PAHs. This interval produced the highest relative HCN field screening measurements from the boring.

Total cyanide was analyzed using USEPA Method SW9012A by H2M and the results were compared to the New York State Soil Cleanup Standard for Protection of Groundwater presented in 6 NYCRR Part 375 (NYSDEC, 2006), which is 40 mg/kg. If the total cyanide concentration was above this level, analyses would have been performed for free cyanide (ASTM Method D 4282-02) and for metal cyanide complexes (ASTM Method D 6994-04).

Analytical results for total cyanide are presented in Table 3-1, which indicate that cyanide was not detected in either sample (the detection limits were 0.61 mg/kg and 0.56 mg/kg). Based on these results, the analyses for free cyanide and metal cyanide complexes were not performed. The laboratory data indicate that cyanide was not present in the soils, which suggests that the HCN field screening measurements were false positive readings that may have been caused by interferences to the HCN sensor. According to the instrument manufacturer, the HCN cell is subject to interferences from carbon monoxide, H₂S, sulfur dioxide, nitric oxide, nitrogen dioxide, hydrogen and ethylene. The electrodes in the HCN cell could also corrode from repeated exposure to H₂S, causing erratic instrument performance. Drager tubes were also used to confirm the absence of HCN for some of the sample locations.

3.4 Environmental Forensic Interpretations

3.4.1 Interpretations by META

Environmental forensic interpretations and conclusions provided in the META report are summarized below relative to the following areas (refer to Figure 2-2):

- The western section of the Site that formerly contained a drainage sump, a drip oil tank, and a paint house.
- The southern section of the Site that formerly contained gas holders.
- The eastern section of the Site that formerly contained the gas generator house, oil tanks, a tar tank, a boiler room, and a coal storage area.
- The LIRR ROW south of Intersection Street.

- Around the Adjacent Oil Storage Terminal.

A summary of environmental interpretations provided by META are provided in Table 3-3 and discussed below. In addition to the forensic interpretations provided by META, the analytical results presented in Appendix B indicate that the concentrations of total BTEX and total PAHs around the Adjacent Oil Storage Terminal are not above the remediation threshold criteria of 1,000 mg/kg total PAHs and 50 mg/kg total BTEX.

Western Section of the Site

Samples that were evaluated include DNAPL from well HIMW-01S and soils from HISB-58 and -60. According to META, contaminants found included MGP tar-like material and other kerosene-range hydrocarbons.

Former Gas Holders Area

Samples from the former gas holders area include DNAPL from wells HIMW-06S and -07S and soils from HISB-83. Forensic interpretations indicate that hydrocarbons present in the samples were representative of MGP tar-like materials with minor amounts of weathered distillate fuel oil.

Former Gas Generator House, Oil Tanks, Tar Tank, Boiler Room, and Coal Storage Area

Samples from this area include soils from DGP -53, -55, -56, and -71 and from HISB-43, -44, -78, and -79. The hydrocarbon contaminants identified vary with proximity to former MGP features. META's forensics interpretations identified MGP tar-like material with minor amounts of petrogenic PAHs in the vicinity of the former coal storage area (DGP-71). Soils from the former MGP oil and tar tanks area (HISB-44) contained a mixture of weathered distillate fuel oil plus unknown source PAHs. Further south, samples collected near the former MGP boiler room (DGP-43, -53, -55, and -56) contained other miscellaneous hydrocarbons that were described as being severely weathered.

LIRR ROW

Soil samples from HISB-40 and -70 were collected within the LIRR ROW south of Intersection Street. The environmental forensic interpretations indicate that the soils from HISB-

40 were impacted by distillate fuel oil (18ft – 28ft) and tar-like material (32ft – 34ft). Soils from HISB-70 contained weathered heavy petroleum distillate fuel oil mixed with pyrogenic PAHs that are indicative of former MGP tar-like materials. The relative amount of petrogenic to pyrogenic matter in the HISB-70 samples varied, which was interpreted by META to indicate that the petrogenic and pyrogenic substances were released at different times and comingled.

Adjacent Oil Storage Terminal

Samples taken in the vicinity of the Adjacent Oil Storage Terminal that were evaluated by META include:

- Soil samples from HISB-41, -79, -110, -111, -112, -113, OSMW-2 and -3.
- LNAPL samples from HIMW-10S and -11S and HISB-112 (a temporary well).

Environmental reports prepared by consultants for the Adjacent Oil Storage Terminal and tank registration reports that were included in the RI report were also reviewed by META.

META's forensic interpretations indicate that the Adjacent Oil Storage Terminal is impacted by fresh and weathered distillate fuel oil consistent with products that were handled on the Adjacent Oil Storage Terminal property. West and southwest of the Adjacent Oil Storage Terminal, MGP tar-like material and weathered heavy petroleum distillates (similar to No. 4 fuel oil) were identified below the soils that were contaminated with distillate fuel oil. In this area, the relative amounts of distillate fuel oil to MGP tar-like material and heavy weathered petroleum distillates within the soils decreased with depth.

Groundwater samples collected south of the Adjacent Oil Storage Terminal by consultants for the Oil Storage Terminal were found to contain methyl-tertiary butyl ether (MTBE), which is a gasoline additive. This suggests that gasoline impacts were present. Gasoline storage tanks were documented at the Adjacent Oil Storage Terminal and at the former Mollineux Brothers Fuel Co., which was located at the southeastern corner of Intersection Street and Sealey Avenue.

The concentrations of total BTEX and total PAHs for all soil samples collected in the vicinity of the Adjacent Oil Storage Terminal (except LNAPL from HISB-112) were below the MGP source material threshold criteria. Forensics interpretations indicate that the LNAPL

detected in temporary well HISB-112 consisted of predominately No. 2 fuel oil that is attributed to releases from the Oil Storage Terminal with minor amounts of pyrogenic PAHs present.

3.4.2 Interpretations Based on Soil Boring and NAPL Monitoring

NAPL has been observed in a number of monitoring wells at and downgradient of the former MGP Site as well as on and downgradient of the Adjacent Oil Storage Terminal, as documented during the various Site investigation activities performed at both sites. A summary of NAPL observations in monitoring wells is presented in Figure 3-8, which shows that both LNAPL and DNAPL have been observed. The MGP-related coal tar observations have primarily been DNAPL at and down-gradient of the former MGP Site. Minor LNAPL has historically been observed at PZ-06, -05, -08, HIMW-06S, -07S, and -17S. Conversely, on and downgradient of the Adjacent Oil Storage Terminal, only LNAPL has been observed. Upgradient of the Adjacent Oil Storage Terminal, NAPL has not been observed in wells OSMW-1, -2, and -3 that are located on the LIRR ROW. Minor LNAPL and DNAPL were observed at HIMW-11S and -11D, respectively; however, they are no longer present. A clear distinction of the areas of MGP impacts and impacts from the Adjacent Oil Storage Terminal is apparent in this figure.

Figure 3-9 presents a combination of soil boring visual impacts and the forensics analysis results. This figure illustrates that impacts adjacent to and downgradient of the Adjacent Oil Storage Terminal are primarily petroleum-related (i.e., diesel/No. 2 fuel oil) with a minor component of MGP impacts underlying the petroleum impacts. The petroleum impacts transition to primarily MGP impacts moving westward along Intersection Street to the LIRR ROW. This assessment is further illustrated in cross-sections A-A', B-B' and C-C' provided in Figure 3-10.

In cross-section A-A', moving west to east along Intersection Street, NAPL-saturated soils discontinue at approximately the southeastern limit of the LIRR ROW, diminishing to blebs and NAPL coatings through HISB-41. The predominant impacts on Intersection Street south of the terminal are diesel fuel-related. Similarly cross-sections B-B' and C-C', which extend north to south from the former MGP Site through the Adjacent Oil Storage Terminal to Intersection Street, illustrate the transition from predominantly MGP-related impacts to predominantly petroleum-related impacts through the LIRR ROW onto terminal property.

As described in META's Environmental Forensics Summary Report provided in Appendix B, groundwater sampling was performed at 9 direct-push sampling points along Intersection Street and Sealy Avenue by Kost Environmental Services, Inc. in October 2001 as part of investigation activities for the Adjacent Oil Storage Terminal. Among other organic compounds, MTBE was detected in several of these sampling points immediately downgradient of the Adjacent Oil Storage Terminal as shown on Figure 3-11. MTBE is a synthetic chemical added to modern gasoline and is not related to MGP operations. Gasoline contains BTEX compounds and low molecular weight PAHs, which are also found in fuel oils and coal tar-related materials. As shown in Figure 3-11, the highest levels of MTBE in groundwater occur directly south of the Adjacent Oil Storage Terminal at the junction of Intersection Street and Sealy Avenue. The source of groundwater impacts downgradient of the Adjacent Oil Storage Terminal can likely be attributed to several sources including petroleum product releases at the property, MGP-related contamination from the former MGP Site, and potential releases from the former Mollineux Brothers Fuel Oil facility.

Soil borings were drilled and 5 monitoring wells were installed on the Adjacent Oil Storage Terminal Property as documented in a January 1994 Status Report (Tyree, 1994). In addition, groundwater samples were collected from 9 temporary sample points installed along Intersection Street and Sealey Avenue, which are south of the Adjacent Oil Storage Terminal Property. The subsurface logs and construction details for these monitoring wells and temporary sample points were not available to National Grid and could not be included in this PDI report.

3.4.3 Fuel Fingerprint Identifications by H2M

Environmental fuel fingerprint identifications were performed by H2M on soil samples collected from the following areas (refer to Figure 2-2):

- The eastern section of the Site that formerly contained oil tanks and a boiler room.
- The LIRR ROW west of the Adjacent Oil Storage Terminal.
- South of Adjacent Oil Storage Terminal along Sealey Avenue east/northeast of the Former Mollineux Brothers Fuel Co.

The analyses were performed using USEPA Method 8100 (modified), which is a GC/MS technique. A summary of fuel fingerprint identifications provided by H2M is included in Table 3-3 and discussed below. The fuel fingerprint interpretations provided by H2M are primarily based on sample chromatographic pattern recognition and mass ion (m/z) spectra comparison with calibration standards of known fuel-types and did not include statistical forensic interpretations (i.e., PAH ratio plots, qualitative biomarker evaluation, etc.) as performed by META. Therefore classification of the contamination sources as petrogenic or pyrogenic were not determined. Support documentation (i.e., copies of calibration standard/sample chromatograms and mass ion spectra) is presented in Appendix G.

Eastern Section of the Site – Oil Tanks and Boiler Room

The sample from this area included soil from DGP-295 (25ft – 30ft). According to H2M, a weathered distillate fuel oil (likely No. 2 fuel oil) pattern was identified. The pattern lacked straight-chain hydrocarbons, which may indicate environmental weathering, but did contain several additional peaks in the later portion of the chromatogram that may be associated with heavier weight PAHs. The occurrence of later eluting PAHs may indicate the presence of a heavier distillate fuel (e.g., MGP tar-like material [TLM] or No. 4 fuel oil).

A soil sample from HISB-43, which was located approximately 50 ft northeast of DGP-295 (25ft – 30ft), also contained severely weathered No. 2 fuel oil, heavy oil, and TLM, plus unknown hydrocarbons.

LIRR ROW West of Adjacent Oil Storage Terminal

One sample from this area was collected at DGP-296 (30ft – 35ft). According to H2M, a weathered distillate fuel oil (likely No. 2 fuel oil) pattern was identified, similar to sample DGP-295 (25ft – 30ft), but with lesser amounts of the heavier weight PAHs.

South of Adjacent Oil Storage Terminal along Sealey Avenue

Samples from this area included soil from DGP-309 and -310, (both from the 25ft – 30ft and 35ft – 40ft intervals), and from DGP-320 (25ft – 30ft and 30ft – 35ft). According to H2M, the fuel pattern identified in all samples except DGP-310 (25 ft. – 30 ft.) was a weathered

distillate fuel oil (likely No. 2 fuel oil) with heavier weighted PAHs. The fingerprint interpretation by H2M indicates that DGP-310 (25 ft. – 30 ft.) contained a heavy distillate middle oil.

The fuel fingerprint pattern interpretation by H2M indicates that soil from DGP-310 (25ft – 30ft) contained a heavy distillate middle oil that appeared to be dielectric in nature. This interpretation contrasts with the 35ft – 40ft interval sample from DGP-310 and from soil borings in the immediate vicinity of DGP-310, which contained weathered distillate fuel oil (likely No. 2 fuel oil). The laboratory indicated that the strong presence of m/z 191 in the spectra of DGP-310 (25ft – 30ft) is typical for hopanes, which are “known to be present in crude oils and some refined petroleum products.

3.4.4 Summary

The following lines of evidence indicate that remediation of MGP source material is not warranted east of the LIRR ROW near the Adjacent Oil Storage Terminal property:

- No MGP source material is present based on the analytical data, and the analytical results for soil samples collected near the Adjacent Oil Storage Terminal are below the remediation threshold criteria of 1,000 mg/kg total PAHs and 50 mg/kg total BTEX.
- LNAPL and DNAPL observations in monitoring wells, forensic analytical chemistry, constituents in groundwater south of the Adjacent Oil Storage Terminal, and visual and olfactory observations in soil borings point to a sizeable area of non-MGP impacts at and downgradient of the Oil Storage Terminal that appear to be related to releases at this facility.
- The available information on prior releases and investigations at the Adjacent Oil Storage Terminal, as documented in Appendix B of the RI report, indicated a number of historic petroleum releases that could have resulted in the subsurface contamination conditions encountered (PS&S, 2006).

Additional borings are planned on the Adjacent Oil Storage Terminal Property in accordance with a September 9, 2009 letter from NYSDEC (NYSDEC, 2009b) pending the acquisition of a property access agreement between National Grid and the Adjacent Oil Storage Terminal Property owner. Work associated with the development and scheduling of the ISS design will not be delayed by the timing of the access agreement and work on this property.

3.5 Soil Properties

This section presents a discussion of the relationship between geotechnical conditions and anticipated construction activities associated with the implementation of ISS at the Site. Information and data reviewed includes boring logs, SPT blow counts, and laboratory test data from the RI, the IRM investigation, and this PDI.

A discussion of the geotechnical data is presented in the context of ISS construction activities that will require a temporary excavation protection system (TEPS) and soil mixing during the ISS. The geotechnical laboratory test results obtained during the PDI are provided in Appendix C.

The borings that provide information on soil properties are listed below.

- RI borings HIMW-01, -02, -03, -06, -08, and -11.
- IRM investigation borings GTB-1B, -2B, -3, and -4.
- PDI boring GTB-101.
- ISS borings ISS-01, -02, -03, and -04.
- Direct-push borings from the IRM investigation and the PDI.

Geotechnical laboratory test results for soil samples from GTB-101, HISB-102, -106, and -108 are listed in Table 3-4.

3.5.1 Temporary Excavation Protection System

Shallow soils will be removed at the periphery of the proposed ISS area to expose and remove former MGP structures and to lower the ground surface to accommodate swell that will be caused by the addition of cementitious materials into the ground. Existing utilities such as Long Island Power Authority (LIPA) electric utility poles along the LIRR ROW will have to be protected, as well. Excavation in these areas may have limitations and could require the use of a TEPS.

Boring and/or laboratory data that provide SPT N-values (i.e., blow counts per foot) and grain size distribution are commonly used to evaluate shoring and open cut stability requirements. For excavations performed within a TEPS or as an open cut, the pertinent soil zone is the uppermost 40 ft, so the evaluations focused on this zone. Because open cut excavations are possible, knowledge of the soil characteristics is necessary to evaluate stability of the side slopes.

In the areas where a TEPS could be necessary, the soils are predominantly cohesionless sand and gravel (or fill that acts as such) with some silty soil present. Most boring logs do not indicate SPT values, which is typically regarded as the minimum required information needed (i.e., compaction) for TEPS design. However, broad assumptions on engineering soil properties can be made in lieu of SPT values since the following conditions exist:

- Excavations will be relatively shallow compared to groundwater depth (i.e., groundwater occurs at approximately 25 to 30 ft bgs).
- There will be no hydrostatic forces from groundwater acting on the TEPS.
- The Site soils are mainly cohesionless and some conservative assumptions on compaction can be made where detailed data does not exist (e.g., assume loose) without significant over-design of the TEPS.

The grain size data from the RI borings was limited to samples collected from 4 borings and 6 discrete depth intervals, all between 26 and 38 ft bgs. The data generally agreed with the respective boring log descriptions and indicated that the soil is predominantly fine sand or larger in size.

SPT N-values were recorded for IRM delineation borings GTB-1B, -2B, -3, and -4 and PDI borings ISS-01, -02, -03, and -04 and GTB-101. The soil at these locations is generally comprised of sand and gravel except for the upper 5 to 10 ft that can have considerable silt content. Although boring GTB-2B indicated loose soils throughout the entire 14 ft depth, the other GTB borings typically indicated medium dense soil or N-values between 10 and 30. The ISS logs show that in-situ conditions are loose to dense, occasionally being very dense. On average however, the soils within the upper 40 ft were medium dense to dense.

3.5.2 ISS Soil Mixing

In the areas where ISS is anticipated, the soils are predominantly sand and gravel with some silty soil present. A detailed delineation of soil stratigraphy is not critical to ISS mixing because the variability in soil types will generally be eliminated by the vertical blending of soil during mixing from the ISS augers. However, identification of hard or cobble zones is critical. Soil conditions that may make ISS difficult would include N-values approaching 100 (e.g., a hard gravel zone) or obstructions. The boring logs did not indicate the presence of hard soil zones or obstructions within the planned ISS zone. A more detailed discussion of soil conditions within the proposed ISS zone will be presented in the ISS design report.

The RI, IRM, and PDI boring logs typically indicated that the Site is underlain by predominately sand and gravel with some silty soil present. The laboratory grain size test data generally agreed with the boring log descriptions and indicated that the soil is predominantly fine sand or larger in size.

The GTB borings typically indicated medium dense soil with N-values between 10 and 30. The ISS borings were drilled to 36 to 70 ft bgs and can be used for ISS assessment. The boring logs indicate that the soil is loose to dense, occasionally very dense, but on average was medium dense to dense within the upper 70 ft bgs. Hard soils or obstructions were not noted in the logs. The highest N-value was 57.

3.6 Hydraulic Conductivity

As described in the *Pre-Design Investigation Work Plan* (URS, 2008d), slug tests were planned for 8 wells (i.e., HIMW-8S, -8I, -12S -12I, -13S -13I, -14I, and -15I) to support the groundwater model and to provide hydraulic conductivity values to be compared with regional values. As the PDI investigation progressed and development of the groundwater model commenced, it was determined that additional slug tests were warranted to broaden the areal and vertical coverage of Site-specific hydraulic conductivity data.

In calibrating the groundwater model, it was observed that the Site-specific hydraulic conductivity data was lower than the regional values reported in literature and that the hydraulic

model did not calibrate well to the Site-specific slug test data. Upon further evaluation of the slug test data, it was observed that the data collection time interval (i.e., one second) was insufficient to capture the aquifer response in such a high permeability formation (i.e., the majority of the response to the slug occurred in the first second after the slug was introduced). In order to verify the Site-specific hydraulic conductivity values and to support proper calibration of the hydraulic model, a number of the slug tests were performed again (and on some different wells), using a much tighter data collection time interval (i.e., logarithmic). The resulting slug test results were more consistent with reported regional values and enable closer calibration of the hydraulic model (see Section 4.1.3). The slug test results that were used in developing the groundwater hydraulic model are presented in Table 3-5. The hydraulic conductivity calculations are provided in Appendix D.

3.7 Groundwater Treatment System Pre-Design Investigation Results

3.7.1 Groundwater

3.7.1.1 Dissolved Contaminants

Table 3-6 provides a summary of analytical data for dissolved contaminants (BTEX and PAHs) in groundwater collected from temporary sampling points during the PDI. The distribution of dissolved contaminants is shown graphically on Figure 3-12, (Dissolved Phase Groundwater Plume – Plan View) and on Figures 3-14, 3-15, 3-16 and 3-17 (cross-sections D-D', E-E', F-F', and G-G'), which were constructed using data from the RI, the PDI, and from the quarterly groundwater sampling events. Figure 3-13 shows the locations of these cross-sections. The figures provide approximate contaminant concentration isopleths that represent 5,000 µg/L, 1,000 µg/L and 100 µg/L of BTEX or total PAHs. Appendix G contains the DUSR that contains all groundwater analytical data. All sample analyses were found to be compliant with the method and validation criteria and the data is useable as reported except some samples that exhibited low-level contamination were rejected due to headspace in the sample vials when they were received by the laboratory. It is believed that the headspace was caused by a reaction of the sample with acid preservative that was added to the vials.

Borings HISB-100, -101, -102, -102 (2), -103, -104, -105, -105(2) and -116 and DGP-209 were located along the proposed alignment of the Smith Street oxygen wells. Elevated BTEX and PAH concentrations were generally observed between 30 to 64 ft bgs at DGP-209, HISB-100, -101, -102, -102 (2), and -103. Elevated BTEX and PAH concentrations were also observed in the 80 to 84 ft sample at HISB-105. However, adjacent boring HISB-105 (2) did not exhibit comparable concentrations at this depth. Elevated BTEX and PAH concentrations were observed between 60 to 104 ft. bgs at HISB-116. The highest concentrations measured at these locations are listed below.

Location	Depth (ft bgs)	Total BTEX (µg/L)	Depth (ft bgs)	Total PAHs (µg/L)
HISB-100	40-44	12,000	40-44	1,576
DGP-209	40-44	4,980	50-54	1,297
HISB-101	40-44	14,000	40-44	4,356
HISB-102	30-34	1,800	50-54	2,735
HISB-102 (2)	40-44	484	50-54	852
HISB-103	50-54	84	50-54	171
HISB-105	60-64	1,043	60-64	3,058
HISB-105 (2)	60-64	560	60-64	2,941
HISB-116	100-104	291	100-104	836

The data provided in Table 3-6 and Figure 3-12 indicates that lower concentrations were observed at HISB-103 and that BTEX and PAHs were not detected in the samples collected from HISB-104. These borings were located at the southwestern and southeastern corners of Smith Street and Sealey Avenue, respectively. The eastern edge of the plume was established by these points. The western edge of the groundwater plume was established by HISB-114, which was located on the northern side of Atlantic Avenue in the road right-of-way. Analytical results from this location are discussed below.

Borings HISB-106, -107, -108, -109, -114 and -115 were located in the vicinity of the proposed oxygen wells in Mirschel Park. Elevated BTEX and PAH concentrations were

generally observed between 30 to 64 ft bgs at HISB, -106, and -107. At HISB-116 elevated BTEX and PAH concentrations were observed between 60 to 104 ft bgs. The highest concentrations measured in this area are listed below.

Location	Depth (ft bgs)	Total BTEX (µg/L)	Depth (ft bgs)	Total PAHs (µg/L)
HISB-106	50-54	1,800	50-54	2,513
HISB-107	50-54	551	50-54	258
HISB-108	90-94	26	90-94	2
HISB-109	80-84	31	80-84	2
HISB-115	70-74	1,411	70-74	1,153

The data provided in Table 3-6 and Figure 3-12 indicates that BTEX and PAHs were either not detected or detected at low concentrations at HISB-108 and -109. These borings were located at the southeastern corner of Mirschel Park and establish the eastern edge of the plume in this area. BTEX and PAHs were not detected at HISB-114, which was located along Atlantic Avenue west of HISB-105 -105 (2), and -115. The western edge of the plume is located between these borings and HISB-114.

HISB-115 was located west of Hilton Avenue in the road right-of-way between Atlantic Avenue and Rundle Court. Elevated BTEX and PAH concentrations were detected between 50 to 74 ft bgs, with the highest concentrations occurring at 70 to 74 ft bgs (1,411 µg/L BTEX and 1,153 µg/L total PAHs).

Groundwater analytical results from the PDI investigation are similar to the results presented in the RI report in terms of strength (i.e., concentration) and extent of the plume. This indicates that the plume is stable, which is consistent with the conceptual Site model discussed in Section 1.2.5. Figure 3-14 shows the plume in section view (cross-section D-D') along its principal axis and incorporates data from the PDI and RI. The figure shows that the highest concentrations occur at the Site and south to the area between HISB-101 and Atlantic Avenue. South of Atlantic Avenue, the plume dips and is overlain by uncontaminated groundwater. As shown on Figure 3-12, the western boundary of the plume in the vicinity of the proposed Smith Street oxygen wells occurs at Hilton Avenue. Cross-section E-E' (Figure 3-15) shows that the

bottom of the plume occurs at approximately 75 ft bgs along Smith Street. Cross sections F-F' and G-G' (Figures 3-16 and 3-17) indicate that the bottom of the plume is approximately 85 ft bgs along Atlantic Avenue and 75 ft bgs in Mirschel Park.

3.7.1.2 Observations at HIMW-8S/I

After the RI, the groundwater analytical results for samples collected from well couplet HIMW-8S/I beginning in April 2007 indicated unexpectedly low dissolved-phase concentrations. Both wells were redeveloped in January 2009 to determine if sediment buildup in the wells and on the well screens was the cause for the unexpectedly low results. However, subsequent sampling revealed similar low dissolved-phase concentrations in the wells. To further evaluate these results, boring DGP-209 was advanced in the vicinity of HIMW-8S/I. Groundwater grab samples from temporary sampling point DGP-209 indicated higher concentrations of BTEX and PAHs (maximum total BTEX concentration of 4,980 µg/L and maximum total PAHs concentration of 1,297 µg/L). The reason for the consistently low concentrations in well pair HIMW-8 S/I has not been determined.

3.7.1.3 Aquifer Geochemistry

Table 3-7 provides a summary of analytical data for parameters used to assess intrinsic remediation processes in groundwater. The distributions of DO, ORP, ferrous iron, and alkalinity are also shown on cross-sections E-E', F-F', and G-G' (Figures 3-15, 3-16, and 3-17). The following discussion presents a summary of the data and provides interpretations on the occurrence of intrinsic remediation processes at the Site.

Electron Acceptors

DO concentrations inside the plume range from 0.0 mg/L to 0.7 mg/L. Outside the plume, at HISB-108 and -109, the concentrations range from 0.0 mg/L to 7.1 mg/L. The data indicate that oxygen is deficient and that aerobic biodegradation of BTEX and MGP-related PAHs is an active process within the plume. Aerobic conditions (i.e. DO > 2.0 pm) were observed at HISB-101 (> 80') HISB-104 (entire boring), HISB -103 (60' – 74'), HISB -108 (30'-34') and HISB -109 (30'-34').

Nitrate concentrations are depleted within the plume (0.2 mg/L – geometric mean) relative to areas outside of the plume (2.6 mg/L – geometric mean). These results demonstrate that anaerobic degradation of the contaminants is occurring via denitrification.

Metabolic Byproduct

Ferrous iron concentrations within the plume range between 1.9 mg/L to greater than 29.7 mg/L. Areas that contain elevated levels of ferrous iron appear to be experiencing metabolic processes that result in the reduction of ferric iron to ferrous iron. Dissolved iron concentrations greater than approximately 20 mg/L may create the following conditions that will be evaluated during the design:

- The dissolved iron will exert an oxygen demand on the system that must be accounted for.
- The delivery points could be fouled by bacterial residues and iron oxide precipitates.

Alkalinity

Total alkalinity (as CaCO₃) inside of the plume (67.5 mg/L – geometric mean) is greater than the alkalinity measured outside of the plume (28.5 mg/L – geometric mean). This data provides evidence that the respiration of DO, nitrate, ferrous iron, and possibly sulfate are active processes.

Oxidation Reduction Potential

ORP was observed to range from -252 mV to 149 mV. Nitrate reduction, iron reduction, and sulfate reduction processes can occur at these oxidation/reduction states.

Ortho Phosphate

Phosphate was not detected in the samples (detection limit 0.05 mg/L), which suggests that the nutrient concentrations are low. The need for nutrient addition will be determined during the design and performance monitoring of the system. One approach that will be considered is to

monitor oxygen demand during full-scale operation of the oxygen delivery systems before considering the need for any nutrient additions.

3.7.2 Soil Properties

Along Smith Street, the oxygen wells will be installed to treat contaminated groundwater to approximately 75 ft bgs. The oxygen wells along Atlantic Avenue will be installed to treat contaminated groundwater between the water table surface to approximately 85 ft bgs. In Mirschel Park, the oxygen wells will be installed to treat contaminated groundwater from 40 ft bgs to 75 ft bgs.

Boring logs from HISB-08 and -12 (drilled during the RI) and HISB-102, -104, -106, and -108 (drilled during the PDI) indicate the following conditions:

- 25 to 70 ft bgs – Fine to coarse sand with some gravel is identified in the HISB borings. The log for HIMW-12 generally corresponds with these conditions except that fine sand is not typically noted for HIMW-12. HIMW-08, which is located near the corner of Smith Street and Wendell Street, differs in that silt/clay is present intermittently from 25 to 32 ft bgs, at 50 ft bgs, and at 60 to 70 ft bgs.
- 70 to 85 ft bgs – The HISB borings and HIMW-12 indicate that the soil is generally fine sand with traces of silt or interbedded clay/silt layers or seams. HIMW-08 indicates more clay than sand at this depth.

The grain size results are summarized in Table 3-4. The samples were taken from zones where screens may be installed, which are outside of zones where there is significant presence of fines such as silts and clays. The grain size curves (Appendix C) demonstrate general agreement of grain size distribution with boring log descriptions and indicate that the targeted zones contain less than 8 percent fines by weight. The laboratory data shows the tested soil in the 25 to 70 ft bgs interval to be poorly graded sand that is primarily distributed over the fine and medium sand range. The laboratory data shows the tested soil in the 70 to 90 ft bgs interval to be poorly graded sand and silty sand that is primarily uniformly sized over the fine sand range. The HIMW boring logs provided descriptions of the soil density and indicated, on average, a medium dense type of soil.

Typical values of porosity for the soil types in the probable screened zones can be found in literature, and are as follows:

- 25 to 70 ft bgs – Porosity is equal to about 35 percent for Site soil with no fines and about 35 to 40 percent for some silt being present such as found at this Site.
- 70 to 90 ft bgs – Porosity is equal to about 40 percent for uniform sand including small fines content such as found at this Site.

3.7.3 General Discussion

Information presented in this report demonstrates that intrinsic bioremediation of the dissolved phase contaminant plume is an active process at the Site. The lines of evidence that support this assessment include:

- Groundwater monitoring data for BTEX and PAHs documents that the plume is stable. The plume is receiving contaminants by dissolution of BTEX and PAHs from MGP source material and from other petroleum spills in the vicinity of the Site, which are being biodegraded. Monitoring data presented in this PDI report, the RI report (PS&S, 2006), and quarterly groundwater sampling and NAPL monitoring/recovery reports (URS, 2007a, 2008a, 2008c, 2008e, 2009a, 2009b, 2009d, 2009e, 2009f, and 2009g) show that the extent of the plume is not increasing. Moreover, the data indicate that BTEX and PAH concentrations measured during the RI (2001 to 2003) are similar to the concentrations measured during the PDI.
- Monitoring data for attenuation parameters (electron acceptors, metabolic byproducts, oxidation/reduction conditions, and alkalinity) demonstrates that aerobic respiration, nitrate reduction, ferric iron reduction, and possibly sulfate reduction processes are occurring.

The oxygen delivery system will provide a supplemental supply of oxygen to the subsurface, which will become available to aerobic, hydrocarbon-degrading bacteria. A partial list of the many microorganisms that are known to degrade BTEX is provided below.

**Some Microorganisms Capable of Degrading Various Hydrocarbons
(Modified from Riser-Roberts, 1992)**

Contaminant	Microorganisms	Comments/ Biodegradability
Benzene	<i>Pseudomonas putida</i> , <i>P. rhodochrous</i> , <i>P. aeruginosa</i> , <i>Acinetobacter sp.</i> , <i>Methylosinus</i> , <i>trichosporium</i> <i>OB3b</i> , <i>Nocardia sp.</i> , <i>methanogens</i> , <i>anaerobes</i>	Moderate to high
Toluene	<i>Methylosinus</i> , <i>trichosporium OB3b</i> , <i>Bacillus sp.</i> , <i>Pseudomonas putida</i> , <i>Cunninghamella elegans</i> , <i>P.</i> <i>aeruginosa</i> , <i>P. mildenberger</i> , <i>Pseudomonas</i> <i>aeruginosa</i> , <i>Pseudomonas sp.</i> , <i>Achromobacter sp.</i> , <i>methanogens</i> , <i>anaerobes</i>	High
Ethylbenzene	<i>Pseudomonas putida</i>	High
Xylenes	<i>Pseudomonas putida</i> , <i>methanogens</i> , <i>anaerobes</i>	High

The stoichiometric ratio of oxygen per contaminant (i.e. hydrocarbon) is approximately 3 moles oxygen to 1 mole of hydrocarbons. Oxygen is considered to be the primary growth-limiting factor for hydrocarbon-degrading bacteria. By supplying oxygen into the subsurface, the rates of biodegradation can be increased by at least one, and sometimes several, orders of magnitude over naturally-occurring, non-stimulated rates.

Delivery of high-purity (i.e. 90 to 95 percent) oxygen into the groundwater is an efficient means of increasing DO levels in groundwater to promote aerobic biodegradation of the contaminants. Oxygen is several times more soluble in groundwater when it is introduced in pure form as compared to other methods (such as biosparging or using a slurry/solid-based product). DO concentrations of up to 40 to 50 ppm can be achieved through the delivery of high-purity oxygen, which contrasts to DO concentrations of approximately 8 to 10 ppm when atmospheric air is used (atmospheric air contains approximately 21 percent oxygen by volume).

3.8 Community Air Monitoring Data

Appendix F presents a summary of community air monitoring data collected during the investigation activities.

3.9 Infrastructure and Utilities

The locations of aboveground and below ground utilities that have been identified during the PDI, are shown on Figure 3-18 (composite), figure 3-19 (gas), Figure 3-20 (storm sewers, sanitary sewers, and water), and Figure 3-21 (electric and telephone).

4.0 CONCEPTUAL DESIGN

4.1 ISS

Solidification is an established technology that has been used for over 20 years to treat a variety of residual wastes at industrial sites. Solidification creates a large monolithic mass with a hydraulic conductivity much lower than the surrounding unsolidified soil. Since groundwater flows around the monolith, rather than through it, contaminated soil contact with groundwater is drastically reduced and diffusion-limited contaminant leaching is much lower than with untreated soils. A conceptual model of ISS application is illustrated in Figure 4-1.

ISS, as applied to MGP Sites with NAPL, accomplishes the following during treatment:

- ISS achieves source control through encapsulation and soil hydraulic conductivity reduction.
- ISS minimizes long-term impacts to groundwater by markedly reducing the leaching of MGP-related constituents to groundwater.
- ISS eliminates mobile NAPL by homogenizing it with the surrounding soils, reducing its concentration to below its residual saturation point, and blending the impacted soils with cementitious reagents, which creates a low-hydraulic conductivity solidified monolith.

4.1.1 ISS Layout

The proposed limits of ISS are the MGP source material boundaries, (presented in Figure 3-1) except where the source material cannot be reached, such as under buildings and certain utilities. The total area proposed for ISS encompasses approximately 5 acres. Based on the current delineation, this is approximately a 50 percent increase in area as compared to the source material area estimated in the FS/RAP. The ISS design phase will be used to further refine the ISS limits. In addition to the solidification areas, an area of surficial coal tar observations (i.e., within the top one foot) was identified in the area of a former tar tank at boring locations HIMW-02 and HISB-13. As described in Section 3.1, the ISS area encompasses the vast majority of coal tar impacts at the Site.

While ISS as a remedial technology is intended to be utilized for the delineated remediation areas, the means of application may vary depending on location. For example, the vast majority of the former MGP Site will likely be solidified utilizing deep soil mix (DSM) auger technology whereby a 4- to 10-foot diameter soil auger will be used to inject and mix the solidification reagent grout into the soil to the depth required. For areas with overhead or underground utilities, such as the LIRR ROW, Wendell Street, the western half of Intersection Street and portions of the former MGP Site and Village of Garden City property, a design cost-effectiveness evaluation will be necessary to determine if temporary utility relocation to allow use of the DSM augers would be feasible, or if solidification through the use of another technology could be used to work around existing utilities.

The cumulative thickness of MGP source material ranges from less than one foot to approximately 36 feet as illustrated on Figure 3-7. The depth below ground surface of the bottom of MGP source material impacts ranges from approximately 30 ft bgs to up to 60 ft bgs. The deepest NAPL impacts occur at the HIMW-01 location where thin NAPL lenses were observed up to 105.5 ft bgs. However, the majority of NAPL impacts at this location are above 60 ft bgs. Therefore, it is anticipated that ISS will extend to a maximum depth between 30 and 60 ft bgs, depending on the depth of impacts in specific areas. The achievable depth of solidification will be determined during the design phase, considering the results of the solidification mix design treatability study, which includes viscosity measurements of soil/grout mixes, and considering the torque requirements and implementation costs for the various sized injection augers available to remediation contractors. A conceptual cross-section of ISS application at the Site is provided in Figure 4-2. Typical equipment and ISS column layout are illustrated in Figure 4-3.

4.1.2 Excavation of MGP Structures

Numerous remnant structures and utilities (both active and inactive) exist in areas that require remediation. In general, the top 8 feet of soil will be excavated in proposed ISS areas to remove subsurface infrastructure prior to ISS. Structures present greater than 8 ft bgs will also be removed.

A number of remnant structures have been identified based on historic MGP plans and various test pits and borings. In addition, a geophysical survey previously performed at the Site and at the Professional Office Building parking area will be evaluated to identify additional subsurface anomalies that may represent subsurface structures or debris. Excavated structures, foundations, and debris will be properly disposed or recycled off site.

Clean soil excavated in preparation for ISS will be stockpiled for reuse as backfill over solidified areas. Contaminated soil excavated in preparation for ISS will either be solidified on site and placed over ISS areas, or will be treated off site at a thermal desorption facility. Further evaluation of the disposition of excavated soils will be performed during the design phase.

Once the upper soil and structures/debris have been removed, performing ISS from this lowered elevation will allow accommodation of volume increase due to solidification and the placement of several feet of clean soil over the top of solidified soils.

4.1.3 Groundwater Modeling

The implementation of ISS will reduce permeability of the treated soil and modeling was performed to predict the effects of ISS on groundwater flow in the vicinity of the Site. The groundwater flow model was developed concurrently with the PDI and preliminary results indicate that the ISS mass will not have an adverse effect on groundwater flow and geometry of the dissolved phase plume. In addition, the results indicate that ponding on the ISS surface will not adversely affect the Site or surrounding properties if adequate soil cover is used. Modeling reports that document the results of groundwater flow and contaminant fate and transport modeling and will be prepared as the ISS treatability study and modeling tasks are completed. The reports will be included in the ISS basis of design report.

Groundwater flow modeling was performed to evaluate the following conditions:

- To determine if the solidified soil will alter groundwater flow that results in significant upgradient mounding (or downgradient head changes) of the water table surface or if the dissolved phase plume width or depth could be increased relative to existing conditions.

- To assess the degree of groundwater ponding on the surface of the solidified soil and evaluate whether sloping of the solidified soil surface or the installation of drains could mitigate ponding.

4.1.4 Groundwater Flow Model

The Site-specific groundwater flow model utilized MODFLOW, which is an established three-dimensional finite difference model developed by the US Geological Survey (McDonald and Harbaugh, 1988), to evaluate the groundwater flow regime for pre- and post-ISS conditions. The Site-specific flow model was built upon an existing calibrated model that was previously created by the H2M Group, Inc. for KeySpan (now National Grid) using the Nassau County Regional Groundwater Model as its basis. The H2M model was developed to evaluate the potential for impacts from the former MGP Site to adjacent water supply wells that are screened in the lower Magothy aquifer. The H2M model parameters were used as a starting basis for the Site-specific groundwater flow model. The finite-difference grid from the H2M model was revised in the following manner:

- A subset of the H2M model domain was used for the Site-specific flow model. The new model domain placed the Site in the center and extended outward at distances that would not be influenced by regional boundary conditions established in the H2M model.
- The finite-difference grid employed variable cell sizes with the smallest cells located in the vicinity of the Site.

The Site-specific groundwater flow model was calibrated to groundwater elevations measured in wells situated throughout the Site area and to hydraulic conductivity values obtained from regional modeling reports and from slug tests performed during the PDI (range of 2.3×10^{-2} to 7.2×10^{-2} cm/sec). Soil properties and stratigraphy were defined using subsurface investigation data from the RI and PDI. The ISS soil mass was modeled at a permeability of 1×10^{-6} cm/sec, which is over four orders of magnitude lower than the native soils. The horizontal extent of the ISS mass was established in accordance with the MGP source material delineation results presented in Section 3.1. Vertically, the ISS mass extended from approximately 8 ft bgs (top) to between 40 and 60 feet bgs (bottom), depending on the depth of MGP source material. The model was run to evaluate steady-state groundwater flow prior to and after implementation of the ISS remediation.

The pre-ISS groundwater flow conditions are illustrated in plan and profile views on Figures 4-4 and 4-5, respectively. These figures show that groundwater flows south from the Site with a slight downward component within the glacial sediments and the upper Magothy sediments. Changes to horizontal flow patterns caused by the ISS soil mass are illustrated on Figure 4-6 (plan view) and Figure 4-7 (section view). Figure 4-6 shows how groundwater will flow around the edges of the ISS mass and Figure 4-7 indicates that groundwater will flow beneath the ISS mass. A comparison pre- and post-ISS groundwater flow conditions demonstrates that changes in the groundwater flow vectors caused by the ISS mass are minimal and occur only in the immediate vicinity of the solidified soil. Furthermore, the figures indicate that the ISS mass will not increase the width or depth of the dissolved phase plume. These results are a result of the large contrast in hydraulic conductivity between the native soils and solidified soils.

Changes in hydrostatic head around the ISS mass were also evaluated. As shown on Figure 4-6, two upgradient points show hydrostatic head increases of 0.13 ft and 0.17 ft. Side-gradient and down-gradient locations indicate hydrostatic head decreases of 0.05 ft and 0.07 ft, respectively. With the water table being present at approximately 25 ft bgs, there is no risk of adverse effects caused by groundwater mounding, or hydrostatic head decreases related to the solidified mass.

4.1.5 Infiltration Ponding Analysis

The ability of backfilled native soil or imported granular fill to drain infiltrating surface water without significant ponding on the ISS surface was evaluated using two different methods: 1) the Hydraulic Evaluation of Landfill Performance (HELP) model (USEPA, 1994a,b); and 2) the Hantush Analytical Model that assesses groundwater mounding due to recharge (Hantush, 1967).

Two cover configurations were evaluated with the HELP model. The first configuration consisted of a 2-ft thick vegetative cover underlain by 6 ft of sand and the solidified soil mass. The second configuration consisted of a 2-ft thick gravel layer followed by 6 ft of sand and the solidified soil mass. The model assumed that lateral drainage occurs within the sand layer on top

of the solidified soil and that vertical percolation resumes at the edge of the ISS mass, which is approximately 15 to 20 ft above the water table surface. Rainfall simulations were performed for 5, 10, 15, 20, and 25 year rainfall frequency events. The model results indicate that the maximum amount of ponding on the ISS surface will be 32 inches for the grass cover configuration and 37 inches for the gravel cover configuration.

Using the Hantush Method, a 100-year rainfall event was evaluated, which corresponds to 8 inches of precipitation over a 24-hour period. Assumptions that were employed include no horizontal flow of water on top of the ISS mass and 4.5 inches of infiltration. Model results indicate that the maximum amount of ponding on the ISS mass is 2.7 ft. If all 8 inches of precipitation is assumed to infiltrate, the maximum perched water table height would be approximately 4.1 ft. In both cases, horizontal flow of perched water to the edges of the solidified monolith surface and subsequent vertical infiltration beyond the edge of the monolith would reduce the maximum perched water table height.

Both of these evaluations indicate that ponding on top of solidified soils will not adversely affect the use of the Site or surrounding properties. However, the results indicate that ponding may occur if less than 4 ft of cover is placed on top of the solidified soil. Further evaluation of infiltration ponding may be necessary as design of the ISS remediation progresses, as possible post-remediation land uses are identified, and as details of the existing storm drainage systems are identified. The design will consider drainage of perched water if there is a possibility that future Site development will include structures with basements. Hydraulic controls may be incorporated in to the design, such as sloping the surface of the solidified soil or installing drains along the surface of the solidified soil and at the edge of the solidified mass.

Additional details of both the groundwater flow model and the infiltration analyses will be provided in the Design Basis Report as the ISS remediation design is completed.

4.1.6 Work Sequencing

Detailed work sequencing will generally be proposed by the Contractor for National Grid approval. Anticipated work sequencing, objectives/assumptions, and requirements are discussed

in this section. This will serve as a broad outline of work sequencing and should not be construed as a detailed specification or construction schedule.

Objectives and Assumptions

1. Provide uninterrupted parking for Professional Office Building employees and patients/clients with a number of parking spaces equivalent to current condition.
2. Provide uninterrupted utility service and minimize road traffic disruption.
3. Work coordination must be included with National Grid Natural Gas Regulator Station operations and LIPA electric transmission lines along the LIRR right of way.
4. Minimize noise, vibration, odor and particulate emissions off-Site.
5. Consider using open cut excavations where possible to eliminate vibration and noise from pile driving. A cement-based ISS wall will also be considered as a shoring system.
6. Any planned subsurface remedial activities will first require utility clearance and planning with the affected utility owner/operator for possible interruption, relocation, or monitoring requirements.
7. Where utilities are present within proposed remediation area, consider (temporary) utility relocation or using an alternate technology (e.g., jet grouting) to complete the ISS.

Potential Work Sequence

The proposed remediation will occur in areas that are described below and is expected to generally follow the sequence that is described below, subject to refinement during the ISS design phase:

- ISS on the National Grid Property. This area would be remediated first to create temporary parking for the Professional Office Building and expand the Site access footprint.
- ISS in the Professional Office Building Parking Lot. This area would be remediated second to treat the area of MGP source material that is south of the Site. Utility relocation or temporary access to the Professional Office Building may be provided in this area if necessary.

- ISS in Adjacent Utility Corridors. This includes the LIRR ROW, Intersection Street, Wendell Street, Village of Garden City property (i.e., former Cedar Valley Avenue), and the natural gas regulator station that is on site. Work would be performed later in the remediation schedule once temporary bypass areas are created from the above work zones.

As previously indicated, the detailed work sequencing will generally be proposed by the Contractor for National Grid approval.

4.2 Groundwater Treatment System

4.2.1 General Discussion

The oxygenation systems will produce high-purity oxygen to be delivered into the groundwater plume using a network of wells. Relatively low delivery rates will be used in order to maximize the contact time between the oxygen and contaminated groundwater before the oxygen rises through the contaminated zone to the water table surface. Trapped oxygen in the soil matrix (e.g. in the soil pores or by semi-confining layers) will beneficially increase contact between the pure oxygen and the oxygen-depleted groundwater. The oxygen wells will be cycled on/off in order to increase DO levels more efficiently over the relatively large treatment areas.

The spacing and depths of the oxygen wells will be determined on the basis of Site-specific conditions such as thickness of the contaminated zone, soil characteristics, and layer stratification. The wells will be installed perpendicular to the plume in a “barrier configuration” that will supply oxygen to the contaminated groundwater as it flows through the treatment zones. The oxygen wells will consist of small diameter PVC pipe and screen that will be completed flush with the ground surface. A typical oxygen well schematic is provided in Figure 4-8. Specific details of the wells that will be installed will be determined during design of the systems. Underground piping will be used (e.g. high-density polyethylene) to connect the wells with mechanical components of the system.

High-purity oxygen will be produced using a system that includes the following components:

- Pressure-swing adsorption oxygen generator.

- Surge tank and regulator.
- Air compressor with air dryer and pressure tank.
- Programmable logic controller (PLC).
- Oxygen delivery manifold.
- Timers and solenoid valves to control the flow of oxygen for pulsed delivery.
- Pressure gauges and flow meters.
- Equipment enclosure with ventilator, electrical panel, plumbing, and mechanical components.

Figure 4-9 provides a generalized process flow diagram of a typical oxygen delivery system. Based on the size and locations of the proposed oxygen wells, three systems were designed but installation of the third system is uncertain at this time because of property access agreements that need to be obtained.

The amount of oxygen that will be delivered to the wells and the pulsing duration will be determined during design of the system and will be based on estimated oxygen demand (from contaminant stoichiometry), oxygen solubility, transfer efficiency, and target oxygen saturation levels. It is anticipated that each oxygen well will be completed with a small diameter steel casing and removable cover installed flush with the ground surface, which will permit access to the well for maintenance.

The systems will include monitoring points and/or monitoring wells located near the oxygen wells that will be used to assess system performance. During operation of the oxygen wells, the oxygen flow rates, pulsing duration, and sequence of operation may be adjusted, if necessary, based on monitoring data from the monitoring points/wells. In addition, the monitoring points/monitoring wells will be used to monitor for groundwater geochemical changes that may result from the cement-based ISS remediation and from iron precipitation that may occur as the oxidation state of the groundwater is changed.

4.2.2 Layout

A conceptual layout of the oxygen delivery systems is provided on Figure 4-10 and discussed below.

System 1

Oxygen wells are planned in the road right-of-way on the northern side of Smith Street, in the LIRR ROW, on the northern side of Atlantic Avenue, and on the eastern side of Hilton Avenue. The oxygen generating system will be located on the LIRR ROW where it crosses Wendell Street. The piping between the system and wells will be buried below ground beneath Smith Street, the LIRR ROW, Atlantic Avenue ROW, and Hilton Avenue ROW.

As shown on Figure 4-10, the line of oxygen wells extends between the eastern edge of the groundwater plume at Sealey Avenue and the western edge of the groundwater plume at Hilton Avenue.

System 2

Oxygen wells are planned in Mirschel Park, on private property at 158 Hilton Avenue, and in the public right-of-ways on Hilton Avenue and Kensington Court. The oxygen generating system will be located on the 158 Hilton Avenue property. The piping between the system and wells will be buried underground and will cross Hilton Avenue.

As shown on Figure 4-10, the eastern and western ends of the delivery well lines will extend to the edges of the groundwater plume in Mirschel Park and along Kensington Court.

System 3

Oxygen wells are proposed on private property located at 106 Hilton Avenue and in the road right-of-way for Hilton Place, and Cathedral Court. The oxygen generating system would be located on the 106 Hilton Avenue property. The piping between the system and wells would be buried underground and would cross Hilton Avenue.

As shown on Figure 4-10, the eastern and western ends of the delivery well lines would extend to the edge of the groundwater plume at 106 Hilton Avenue and along Cathedral Court.

5.0 SUMMARY

This report provides the results of a Pre-Design Investigation for the Hempstead Intersection Street Former Site located in the Villages of Hempstead and Garden City, Nassau County, New York. The PDI fieldwork was completed between September 2008 and February 2009. This report was prepared for National Grid by URS Corporation in accordance with a PDI Work Plan dated July 2008 (URS, 2008e). This PDI report supplements previous key Site-related documents including the February 2008 Feasibility Study/Remedial Action Plan (URS, 2008b), and the November 2006 RI Report (PS&S, 2006). The PDI Report summarizes the field and laboratory sampling and testing activities that were performed to support the design of an ISS remedial program and in-situ groundwater treatment systems for the Site.

5.1 Reason For The Investigation

The November 2006 RI Report describes MGP source material that was identified in soils and associated dissolved-phase contamination in groundwater. The PDI was completed to obtain additional information that will be used to design the ISS remedial program for MGP source material impacted soils, and oxygen delivery systems to address dissolved phase MGP contamination in groundwater.

In accordance with the NYSDEC Decision Document dated March 2008, ISS was selected for the Site and surrounding areas to encapsulate MGP source material in soil within a low permeability monolith (NYSDEC, 2008). The ISS will produce a solidified mass that is intended to reduce the mobility of NAPL, significantly reduce the leachability of contaminants to groundwater, and enhance the remediation of the dissolved-phase plume by reducing contaminant dissolution to groundwater. The PDI was performed to better define the limits of areas targeted for ISS and to obtain samples for a bench-scale treatability study. Testing was also performed to obtain data that will be used in groundwater flow and contaminant mass transport models. These models will evaluate how the aquifer responds to the presence of the solidified mass beneath the Site, and how the transport of dissolved contaminants will be affected by the ISS. The ISS design phase will be used to further refine the planned ISS limits.

The proposed groundwater treatment system will deliver high-purity oxygen into the dissolved-phase contaminant plume via three treatment systems; (1) in the vicinity of Smith Street, the inactive LIRR ROW, and in the road ROW for Atlantic Avenue and Hilton Avenue, (2) in Mirschel Park, on private property located at 158 Hilton Avenue, and in the road ROW for Hilton Avenue and Kensington Court, and (3) on private property located at 106 Hilton Avenue and in the road ROW for Hilton Place and Cathedral Court. The installation of System 3 is dependent on the ability to obtain the necessary private property access agreements. Data was collected during the PDI to verify the lateral and vertical extent of the plume in the vicinity of the treatment system locations, to document intrinsic remediation processes in the groundwater plume, and to provide information that will be used during the design.

5.2 Site History

According to National Grid, the Nassau and Suffolk Lighting Company operated the plant in the early 1900s. LILCO acquired an ownership share of the Site in the early 1930s and LILCO decommissioned the plant in the early 1950s. In 1998, LILCO merged with Brooklyn Union Gas forming KeySpan Corporation. KeySpan was later acquired by National Grid in 2008. The facility originally produced coal gas but was converted to a carbureted water gas process sometime after 1910. Following the arrival of natural gas, the Site served as a peak/emergency facility to ensure gas supply until all MGP operations ceased in the mid-1950s. The plant was subsequently demolished shortly afterward.

Since demolition of the plant in the 1950s, the majority of the Site has been inactive except for vehicle parking in the southern and eastern portions of the Site and the ongoing operation of a National Grid natural gas regulator station in the northwestern portion of the Site. Currently, the Site is undeveloped and is secured by a perimeter fence.

The November 2006 RI Report described the MGP Site-related impacts to soil and groundwater. The impacted materials are associated with coal tar and related constituents that are expected to be found at a former MGP site. The MGP impacts range from dissolved-phase contamination in the groundwater; to an immiscible fluid that is denser than water (DNAPL); to tarry material trapped in soils.

The typical MGP-related chemical constituents are principally BTEX and PAHs that are found in the soil, groundwater and NAPL. The RI and PDI investigation results indicate that the majority of MGP impacts and/or DNAPL are located in two intervals beneath the Site; shallow soils in the upper 8 ft at locations near the former MGP structures or operations, and near the water table interface approximately 24 to 34 ft.

The Site-related impacts migrated south from the Site with the flow of groundwater. During the RI, DNAPL was found to extend approximately 450 ft south of the Site beneath a Professional Office Building parking lot. The extent of the dissolved-phase BTEX and PAH plume is approximately 600 ft wide by approximately 3,800 ft long. The concentrations of BTEX and PAHs decrease rapidly downgradient from the Site. Downgradient migration of the dissolved-phase plume is retarded by naturally occurring organic carbon in the soil and attenuated by naturally occurring biodegradation.

The MGP contaminants have not adversely impacted drinking water supplies in the community. The previous investigations have determined that the Site is located outside of the groundwater capture zones for adjacent water supply wells operated by the Village of Garden City and water supply wells operated by the Village of Hempstead at Clinton Street.

Based on the RI, there are no current or open exposure pathways through which individuals on or near the Site could be exposed to contaminated materials related to the former MGP Site. In addition, soil vapor intrusion testing did not identify volatile organic vapors related to the MGP Site in nearby buildings or in soil vapor monitoring points located in the vicinity of the groundwater plume.

IRMs have been implemented at the Site, which are summarized below:

1. A “cut and plug” IRM was conducted in 1999 and 2000. The objective was to locate underground piping associated with former MGP structures so that each pipe could be cut, drained of any fluids, and plugged to limit the potential for off-site migration of MGP materials.
2. Shallow impacted soils on site were excavated and taken off-site for treatment and disposal during 2008. These areas were selected in part because they were not areas scheduled for future remediation via ISS.

3. Since 2007, DNAPL has been recovered from wells installed on and downgradient of the Site. In 2008 and 2009, 31 additional interim product recovery wells were installed to supplement existing recovery wells. DNAPL recovery is ongoing and will continue until the recovery wells are abandoned in conjunction with starting the ISS program.

There are two areas of known contamination not related to the former MGP Site. An Adjacent Oil Storage Terminal is located immediately east of the Site beyond the LIRR ROW and has a documented history of petroleum releases. Petroleum storage and distribution activities continue at this active Oil Storage Terminal. The Mollineaux Brothers Fuel Company operated a fuel loading and storage facility immediately southeast of the Site that is now inactive. Documentation indicates that a petroleum release also occurred at this facility.

5.3 PDI Investigation Activities

The PDI activities focused on collecting data to support the engineering design for the ISS remediation and the oxygen delivery remediation systems. A summary of the investigation activities is provided below.

ISS Pre-Design Investigation

- A soil boring program (120 borings) was completed to refine the delineation of MGP source material.
- One test pit was excavated to investigate the limits of a former MGP structure at the Site boundary.
- Environmental forensic analyses were performed on one LNAPL and 9 NAPL saturated soil samples that were collected in borings and wells located in the vicinity of an Adjacent Oil Storage Terminal.
- Fuel fingerprint identifications were performed on 8 soil samples that were collected from borings located in the vicinity of the Adjacent Oil Storage Terminal. The results are discussed in Section 3.4.
- Soil borings were completed and geotechnical tests were performed to provide data that will be used to evaluate excavation stability during implementation of the ISS remediation.
- Bulk soil samples were collected for bench-scale testing and leaching assessments that are being conducted to design the ISS mix(es).

- Slug testing was performed on 13 monitoring wells to obtain hydraulic conductivity data that will be used in groundwater flow and contaminant mass transport models.
- Soil and groundwater samples were collected and analyzed for geochemical parameters that will be used for a leaching assessment model to evaluate the solidified mass.
- The locations of utilities were verified and mapped within the proposed ISS remediation area.

Groundwater Treatment System Pre-Design Investigation

- Groundwater sampling and analysis was performed to verify the dissolved phase contamination plume delineation in the vicinity of the proposed oxygen wells and to document geochemical conditions in the aquifer relative to intrinsic bioremediation processes.
- Geotechnical testing was performed on soil samples to support design of the oxygen wells.
- The locations of utilities were verified and mapped within the proposed areas of the groundwater treatment systems.

5.4 Key Findings

1. The November 2006 RI Report described the types and general locations of MGP impacts on and off the Site. The PDI more precisely defined the limits of the areas where MGP source material will be remediated with ISS. The planned ISS treatment extends from the central and southern portions of the Site and along the eastern property boundary. MGP source material is also located under a parking lot for the Professional Office Building that is south of the Site; and a portion of an adjacent park northwest of the Site that is operated by the Village of Garden City.
2. Slug testing of existing wells has confirmed that the underlying aquifer has a high permeability, which is consistent with reported regional observations.
3. The total area that contains MGP source material, which is proposed for ISS, encompasses approximately 4.65 acres. This area represents an approximate 50 percent increase compared to the area estimated in the Feasibility Study/Remedial Action Plan.
4. The cumulative thickness of MGP soil impacts range from less than 1 ft to greater than 36 ft. The depth (below ground surface) of MGP source material ranges from 0 feet (northeast section of the Site) to greater than 60 ft (northwestern section of the Site).

5. Numerous remnant MGP structures and utilities (active and inactive) are present in areas that will be remediated by ISS. In general, 8 feet of soil will be excavated in the proposed ISS areas prior to ISS.
6. Additional delineation of MGP Source material requested by NYSDEC in the vicinity of the adjacent Oil Storage Terminal will be completed upon receipt of an access agreement from the owner of this property.
7. MGP source material appears to extend beneath the southern end of the Professional Office Building at a depth greater than 25 feet below ground surface. Vapor intrusion assessments performed inside of the building (separate from the Pre-Design Investigation) indicated that there were no MGP related compounds in the indoor air. The building consists of a finished basement that contains professional offices. Based on the building occupancy and use, it would not be feasible to remediate the underlying MGP source material from within the building.
8. Modeling performed to evaluate the effects of the solidified soil mass on the groundwater flow indicate that changes in the groundwater flow around the solidified mass will be minimal. Groundwater will flow around and beneath the solidified mass, which will result in negligible changes to the groundwater surface at the upgradient and downgradient sides of the solidified soil. The negligible groundwater flow changes should not increase the existing plume dimensions. A monitoring plan will be developed to monitor groundwater flow directions and evaluate if there are any changes to the flow path.
9. During high rainfall events, up to 3 or 4 feet of perched water could accumulate in the solidified soil surface, which may be located at approximately 8 feet below the ground surface. This will not inundate the ground surface with accumulated water as the solidified soil surface may be completed at approximately 8 feet below ground surface. Design of the ISS remediation will also evaluate methods to enhance perched water drainage from the solidified surface.
10. Forensic analysis of NAPL and contaminated soil samples and fuel fingerprint identifications of contaminated soil samples from the vicinity of the Adjacent Oil Storage Terminal has verified that the area is impacted by fresh and weathered No. 2 fuel oil consistent with the petroleum products handled on the Adjacent Oil Terminal property.
11. Petroleum releases at the Adjacent Oil Storage Terminal have resulted in a separate plume of LNAPL and dissolved phase contamination in groundwater on the Adjacent Oil Storage Terminal property and to the south. The LNAPL-related dissolved phased groundwater contamination plume from the Adjacent Oil Storage Terminal overlies deeper MGP Site-related impacts in the vicinity of the Site and the Adjacent Oil Storage Terminal property.

12. Analysis of soil samples collected around the Adjacent Oil Storage Terminal property indicate that the concentrations of MGP-related contaminants are below the remediation thresholds that have been established for the former MGP Site.
13. Analysis of groundwater samples along possible alignments of the proposed groundwater treatment systems and from permanent monitoring wells has confirmed that dissolved contamination from the former MGP Site occurs in the shallow water-bearing zone closer to the Site and at greater depths further downgradient (i.e., south) of the Site. The PDI data also documents that the concentration and extent of the plume has remained consistent with the results presented in the RI Report, which indicates that the plume is stable.
14. Geochemical testing of groundwater samples within the plume has documented the occurrence of natural attenuation, which causes the stable plume conditions that have been observed.
15. The geochemical data indicate that anaerobic conditions occur within the contaminant plume and that the delivery of oxygen into the plume will promote aerobic biodegradation of the contaminants. Aerobic biodegradation rates are typically one to several orders of magnitude faster than naturally-occurring, non-stimulated anaerobic rates.
16. Elevated levels of dissolved iron are present in the contaminant plume that must be evaluated during design of the groundwater remediation systems that will supply high-purity oxygen into the water table. Design issues associated with the dissolved iron concentrations include oxygen demand exerted by the iron and the potential for fouling due to biological growth and/or the formation of iron oxide precipitates.
17. The design layout of the oxygen wells and treatment system enclosures will require access to properties that are not owned by National Grid, or within the road right-of-ways. The final system layouts will be determined by property access agreements that can be reached between National Grid and the landowners.

6.0 REFERENCES

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TABLES

Table 2-1
DGP Boring Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Sample Depth (ft bgs)	BTEX	PAHs	Total CN	TCL VOCs	TCL SVOCs
Method			EPA 8260B	EPA 8270C	EPA 9010/9014	EPA 8260B	EPA 8270C
DGP-203	Soil	35'-39'				•	•
DGP-205	Soil	27'-30'	•	•			
DGP-206	Soil	25'-28'	•	•			
DGP-207	Soil	25'-29'	•	•			
DGP-208	Soil	28.5'-30'	•	•			
DGP-209	GW	34'-38'	•	•			
DGP-209	GW	40'-44'	•	•			
DGP-209	GW	50'-54'	•	•			
DGP-209	GW	70'-74'	•	•			
DGP-211	Soil	28'-30'	•	•			
DGP-217	Soil	20'-25'	•	•			
DGP-217	Soil	30'-35'	•	•			
DGP-234	Soil	23'-25'	•	•			
DGP-234	Soil	38'-39'	•	•	•		
DGP-251	Soil	10'-13'	•	•			
DGP-251	Soil	20'-22'	•	•			
DGP-251	Soil	25'-28'	•	•			
DGP-253	Soil	30'-35'	•	•			
DGP-257	Soil	45'-50'			•		
DGP-261	Soil	33'-35'	•	•			
DGP-262	Soil	32.5'-35'	•	•			
DGP-263	Soil	30'-35'	•	•			
DGP-264	Soil	30'-34'	•	•			
DGP-265	Soil	32.5'-33'	•	•			
DGP-266	Soil	5'-10'	•	•			
DGP-267	Soil	15'-18'	•	•			
DGP-270	Soil	30'-31'	•	•			
DGP-271	Soil	33'-34.5'	•	•			
DGP-272	Soil	24'-25'	•	•			
DGP-275	Soil	35.5'-37'	•	•			
DGP-277	Soil	30'-31'	•	•			
DGP-278	Soil	28'-30'	•	•			
DGP-278	Soil	30'-32'	•	•			
DGP-278	Soil	38'-40'	•	•			
DGP-279	Soil	29'-30'	•	•			
DGP-280	Soil	27.5'-29'	•	•			
DGP-281	Soil	20'-25'	•	•			
DGP-281	Soil	25'-30'	•	•			
DGP-281	Soil	30'-35'	•	•			
DGP-283	Soil	25'-30'	•	•			
DGP-295	Soil	25'-30'	•	•			
DGP-296	Soil	30'-35'	•	•			
DGP-298	Soil	31'-34'	•	•			
DGP-299	Soil	23'-25'	•	•			
DGP-300	Soil	33'-35'	•	•			
DGP-303	Soil	15'-16'	•	•			
DGP-304	Soil	25'-30'	•	•			
DGP-309	Soil	25'-30'	•	•			
DGP-309	Soil	35'-40'	•	•			

**Table 2-1
DGP Boring Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site**

Location	Matrix	Sample Depth (ft bgs)	BTEX	PAHs	Total CN	TCL VOCs	TCL SVOCs
Method			EPA 8260B	EPA 8270C	EPA 9010/9014	EPA 8260B	EPA 8270C
DGP-310	Soil	25'-30'	•	•			
DGP-310	Soil	35'-40'	•	•			
DGP-312	Soil	25'-25.5'	•	•			
DGP-320	Soil	25'-30'	•	•			
DGP-320	Soil	30'-35'	•	•			
DGP-321	Soil	32'-33'	•	•			
DGP-322	Soil	30'-32'	•	•			
DGP-323	Soil	35'-40'	•	•			
DGP-325	Soil	35'-40'	•	•			
DGP-326	Soil	26'-28'	•	•			

Notes:

BTEX	Benzene, Toluene, Ethylbenzene, Xylenes	PAHs	Polycyclic Aromatic Hydrocarbons
CN	Cyanide	SVOCs	Semi-volatile Organic Compounds
ft bgs	feet below ground surface	TCL	Target Compound List
GW	Groundwater	VOCs	Volatile Organic Compounds

Table 2-2
Forensic Analysis Samples
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Analysis	Sample Date
Remedial Investigation			
HIMW-01S	LNAPL	GC/FID Fingerprint	2002
HIMW-11S	LNAPL	GC/FID Fingerprint	2002
HIMW-10S	DNAPL	GC/FID Fingerprint	2002
HIMW-06S	DNAPL	GC/FID Fingerprint	2002
HISB-60 (17'-19')	Soil	EPP, Fingerprint	2003
HISB-58 (21'-24')	Soil	EPP, Fingerprint	2003
HISB-58 (30'-32')	Soil	EPP, Fingerprint	2003
HISB-70 (25'-27')	Soil	EPP, Fingerprint	2003
HISB-70 (31'-33')	Soil	EPP, Fingerprint	2003
HISB-78 (26'-28')	Soil	EPP, Fingerprint	2004
HISB-79 (34'-35')	Soil	EPP, Fingerprint	2004
IRM Pre-Design Investigation			
DGP-71	Soil	EPP, Fingerprint	2008
HISB-83 (5'-10')	Soil	EPP, Fingerprint	2008
HISB-83 (10'-15')	Soil	EPP, Fingerprint	2008
OSMW-2	Soil	EPP, Fingerprint	2008
OSMW-2 (20'-25')	Soil	EPP, Fingerprint	2008
OSMW-3 (30'-35')	Soil	EPP, Fingerprint	2008
Pre-Design Investigation for ISS and Off-Site Groundwater Treatment			
HISB-110 (20'-25')	Soil	EPP, Fingerprint	2008
HISB-110 (25'-29')	Soil	EPP, Fingerprint	2008
HISB-110 (29'-30')	Soil	EPP, Fingerprint	2008
HISB-111 (20'-25')	Soil	EPP, Fingerprint	2008
HISB-111 (30'-35')	Soil	EPP, Fingerprint	2008
HISB-112 (25'-30')	Soil	EPP, Fingerprint	2008
HISB-112 (32'-35')	Soil	EPP, Fingerprint	2008
HISB-112	NAPL	EPP, Fingerprint	2008
HISB-113 (25'-30')	Soil	EPP, Fingerprint	2008
HISB-113 (30'-35')	Soil	EPP, Fingerprint	2008
DGP-295 (25'-30')	Soil	GC/MS Fingerprint	2009
DGP-296 (30'-35')	Soil	GC/MS Fingerprint	2009
DGP-309 (25'-30')	Soil	GC/MS Fingerprint	2009
DGP-309 (35'-40')	Soil	GC/MS Fingerprint	2009
DGP-310 (25'-30')	Soil	GC/MS Fingerprint	2009
DGP-310 (35'-40')	Soil	GC/MS Fingerprint	2009
DGP-320 (25'-30')	Soil	GC/MS Fingerprint	2009
DGP-320 (30'-35')	Soil	GC/MS Fingerprint	2009

Notes:

GC/FID - Gas Chromatography/Flame Ionization Detector

EPP - Extended PAH Profile

GC/MS - Gas Chromatography/Mass Spectrometry

Table 2-3
ISS Treatability Study Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Sample Depth (ft bgs)	BTEX	PAHs	Oil and Grease	Moisture Content
Method			EPA 8260B	EPA 8270C	EPA 1664A	ASTM D 2216
ISS-01	Soil	22 - 24				•
ISS-01	Soil	44 - 46				•
ISS-01	Soil	25 - 70	•	•	•	
ISS-02	Soil	20 - 22				•
ISS-02	Soil	32 - 34				•
ISS-02	Soil	10 - 35	•	•	•	
ISS-03	Soil	18 - 20				•
ISS-03	Soil	32 - 34				•
ISS-03	Soil	10 - 50	•	•	•	
ISS-04	Soil	18 - 20				•
ISS-04	Soil	32 - 34				•
ISS-04	Soil	20 - 40	•	•	•	

Notes:

BTEX Benzene, Toluene, Ethylbenzene, Xylenes
ft bgs feet below ground surface
PAHs Polycyclic Aromatic Hydrocarbons

Table 2-4
Hydraulic Conductivity Test Wells
Pre-Design Investigation Report
Hempstead Former MGP Site

Well	Screen Interval [ft bgs]	Type of Test	
		Falling Head	Rising Head
HIMW-02I	78-88	•	•
HIMW-02D	104-114	•	•
HIMW-03S	23-33	•	•
HIMW-03I	80.5-90.5	•	•
HISB-03D	133-143	•	•
HIMW-08S	25-35	•	•
HIMW-08D	102-112	•	•
HIMW-12S	22-32	•	•
HIMW-13S	38-48	•	•
HIMW-15I	80-90	•	•
HIMW-15D	141.5-151.5	•	•
HIMW-20S	25-35	•	•
HIMW-20I	63-73	•	•

Table 2-5
Soil and Groundwater Tests for Leaching Assessment Model
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Alkalinity ¹	BTEX ¹	PAHs ¹	Dissolved Organic/Inorganic Carbon ²	Anions/Cations ²
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Method **SM 2320 B** **EPA 8260B** **EPA 8270C**

HIMW-12I	GW	•	•	•	•	•
HIMW-12S	GW	•	•	•	•	•
HIMW-13I	GW	•	•	•	•	•
HIMW-13S	GW	•	•	•	•	•

Location	Matrix	Moisture Content ³	BTEX ¹	PAHs ¹	Organic Content ³	Specific Gravity ³	Grain Size ³
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Method **ASTM D 2216** **EPA 8260B** **EPA 8270C** **ASTM D2974** **ASTM D854** **ASTM D422**

HISS-106	Soil	•	•	•	•	•	•
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Notes:

- 1 analysis by H2M Laboratories
- 2 analysis by Vanderbilt University
- 3 analysis by URS Corp.
- BTEX Benzene, Toluene, Ethylbenzene, Xylenes
- GW Groundwater
- PAHs Polycyclic Aromatic Hydrocarbons

Table 2-6
Temporary Groundwater Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Date	Depth (ft bgs)	Total BTEX	Total PAHs	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Phosphate (ortho)	Dissolved Oxygen		ORP	pH	Conductivity	Notes
Method			EPA 8260B	EPA 8270C	HACH 8146 ⁽¹⁾	SM 2320 B	EPA 353.2	EPA 353.2	SM 4500-P E	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	(flow-thru cell)	
DGP-209	11/11/08	34-38	*	*						*		*	*	*	See Note 3
	11/14/08	40-44	*	*						*		*	*	*	
		50-54	*	*						*		*	*	*	
		70-74	*	*						*		*	*	*	
HISB-100	11/19/08 - 11/21/08	30-34	*	*	*	*	*	*	*	*		*	*	*	See Note 3
		40-44	*	*	*					*		*	*	*	
		50-54	*	*	*	*	*	*	*	*		*	*	*	
		60-64	*	*						*		*	*	*	
		70-74	*	*						*	*	*	*	*	
		80-84	*	*						*		*	*	*	
HISB-101	11/20/08 - 11/20/08	30-34	*	*	*	*	*	*	*	*	*	*	*	*	See Note 3
		40-44	*	*	*					*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*								*	*	*	
		70-74	*	*						*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
HISB-102	12/1/08 - 12/2/08	30-34	*	*	*	*	*	*	*	*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*						*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
HISB-102-2	1/7/09 - 1/8/09	30-34	*	*						*		*	*	*	See Note 4
		40-44	*	*						*		*	*	*	
		50-54	*	*						*		*	*	*	
		60-64	*	*						*		*	*	*	
		70-74	*	*						*		*	*	*	
		80-84	*	*						*		*	*	*	
HISB-103	12/1/08 - 12/2/08	30-34	*	*	*	*	*	*	*	*		*	*	*	See Note 3
		40-44	*	*						*		*	*	*	
		50-54	*	*	*	*	*	*	*	*		*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*						*		*	*	*	
		80-84	*	*						*		*	*	*	

Table 2-6
Temporary Groundwater Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Date	Depth (ft bgs)	Total BTEX	Total PAHs	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Phosphate (ortho)	Dissolved Oxygen		ORP	pH	Conductivity	Notes
Method			EPA 8260B	EPA 8270C	HACH 8146 ⁽¹⁾	SM 2320 B	EPA 353.2	EPA 353.2	SM 4500-P E	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	(flow-thru cell)	
HISB-104	9/24/08 - 9/25/08	30-34	*	*	*	*	*	*	*	*		*	*	*	See Note 3
		45-49	*	*	*					*		*	*	*	
		55-59	*	*	*	*	*	*	*	*		*	*	*	
HISB-105	12/4/08 - 12/5/08	30-34	*	*						*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*	*	*	*	*	*	*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
		90-94	*	*						*	*	*	*	*	
HISB-105-2	12/18/08	30-34	*	*						*		*	*	*	See Note 4
		40-44	*	*						*		*	*	*	
		50-54	*	*						*		*	*	*	
		60-64	*	*						*		*	*	*	
		70-74	*	*						*		*	*	*	
		80-84	*	*						*		*	*	*	
		90-94	*	*						*		*	*	*	
		100-104	*	*						*		*	*	*	
HISB-106	12/4/08	30-34	*	*						*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*	*	*	*	*	*	*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
		90-94	*	*						*	*	*	*	*	
HISB-107	12/8/08 - 12/9/08	30-34	*	*						*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*	*	*	*	*	*	*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
		90-94	*	*						*	*	*	*	*	
HISB-108	12/9/08 - 12/10/08	30-34	*	*						*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*	*	*	*	*	*	*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
		90-94	*	*						*	*	*	*	*	

Table 2-6
Temporary Groundwater Sample Information
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Date	Depth (ft bgs)	Total BTEX	Total PAHs	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Phosphate (ortho)	Dissolved Oxygen		ORP	pH	Conductivity	Notes
Method			EPA 8260B	EPA 8270C	HACH 8146 ⁽¹⁾	SM 2320 B	EPA 353.2	EPA 353.2	SM 4500-P E	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	(flow-thru cell)	
HISB-109	12/10/08 - 12/11/08	30-34	*	*						*	*	*	*	*	See Note 3
		40-44	*	*						*	*	*	*	*	
		50-54	*	*	*	*	*	*	*	*	*	*	*	*	
		60-64	*	*						*	*	*	*	*	
		70-74	*	*	*	*	*	*	*	*	*	*	*	*	
		80-84	*	*						*	*	*	*	*	
		90-94	*	*						*	*	*	*	*	
HISB-114	12/22/08 - 12/23/08	30-34	*	*						*		*	*	*	See Note 3
		40-44	*	*						*		*	*	*	
		50-54	*	*	*	*	*	*	*	*		*	*	*	
		60-64	*	*						*		*	*	*	
		70-74	*	*	*	*	*	*	*	*		*	*	*	
		80-84	*	*						*		*	*	*	
		90-94	*	*						*		*	*	*	
HISB-115	1/14/09 - 1/5/09	30-34	*	*						*		*	*	*	See Note 3
		40-44	*	*						*		*	*	*	
		50-54	*	*	*	*	*	*	*	*		*	*	*	
		60-64	*	*						*		*	*	*	
		70-74	*	*	*	*	*	*	*	*		*	*	*	
		80-84	*	*						*		*	*	*	
		90-94	*	*						*		*	*	*	
HISB-116		30-34	*	*											See Note 4
		40-44	*	*											
		50-54	*	*											
		60-64	*	*											
		70-74	*	*											
		80-84	*	*											
		90-94	*	*											
		100-104	*	*											

Notes:

- 1 Field Analysis - Hach Kit
 - 2 as CaCO₃
 - 3 Samples collected with Geoprobe SP22 sampler & tubing check valve assembly, top-bottom sampling sequence used
 - 4 Samples collected with Geoprobe SP22 sampler & tubing check valve assembly, bottom-top sampling sequence used
- ft bgs feet below ground surface

Table 2-7
Well Construction Summary
Pre-Design Investigation Report
Hempstead Intersection Street Former MGP Site

Monitoring Well	Well Depth (ft bgs)	Ground Surface Elevation ⁽¹⁾ (ft. amsl)	Measuring Point Elevation ⁽¹⁾ (ft. amsl)	Casing Diameter (in)	Screen		Sump Interval (ft bgs)	Annular Fill	
					Interval (ft bgs)	Type		Interval (ft bgs)	Material
HIMW-20S	37	70.79	70.43	2	25-35	sch 40 PVC #10 slot	35-37	0-1	Cement
								1-20	Cement/bentonite
								20-22	Bentonite
								22-37	Type 2 Sand
HIMW-20I	75	70.94	70.30	2	63-73	sch 40 PVC #10 slot	73-75	0-1	Cement
								1-57	Cement/bentonite
								57-59	Bentonite
								59-75	Type 2 Sand
HIMW-21	45	NM	NM	6	25-35	sch 40 PVC #20 slot	35-45	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-45	Type 2 Sand
IPR-26	45	NM	NM	6	25-40	sch 40 PVC #20 slot	40-45	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-45	Type 2 Sand
IPR-27	45	NM	NM	6	25-40	sch 40 PVC #20 slot	40-45	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-45	Type 2 Sand

Table 2-7
Well Construction Summary
Pre-Design Investigation Report
Hempstead Intersection Street Former MGP Site

Monitoring Well	Well Depth (ft bgs)	Ground Surface Elevation ⁽¹⁾ (ft. amsl)	Measuring Point Elevation ⁽¹⁾ (ft. amsl)	Casing Diameter (in)	Screen		Sump Interval (ft bgs)	Annular Fill	
					Interval (ft bgs)	Type		Interval (ft bgs)	Material
IPR-28	50	NM	NM	6	25-40	sch 40 PVC #20 slot	40-50	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-50	Type 2 Sand
IPR-29	50	NM	NM	6	25-40	sch 40 PVC #20 slot	40-50	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-50	Type 2 Sand
IPR-30	50	NM	NM	6	25-40	sch 40 PVC #20 slot	40-50	0-1	Cement
								1-21	Cement/Bentonite
								21-23	Bentonite
								23-50	Type 2 Sand

Notes:

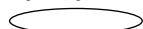
- 1 North American Vertical Datum 1983 (NAVD 1983)
- ft bgs feet below ground surface
- ft amsl feet above mean sea level
- in inches
- NM not measured

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-205	DGP-206	DGP-207	DGP-208	DGP-211
Sample ID			DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30	DGP-211 28'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0	28.0-30.0
Date Sampled			01/17/09	11/12/08	01/17/09	11/12/08	10/22/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	42 D	0.060 U	1 DJ	0.060 U	0.004 J
Ethylbenzene	MG/KG	-	34 D	0.9	25 D	0.065	0.036
Toluene	MG/KG	-	120 D	0.34	47 D	0.060 U	0.048
Xylene (total)	MG/KG	-	310 D	21 D	240 D	0.23 J	0.11
Total BTEX	MG/KG	50	506	22.24	313	0.295	0.198
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	860 D	650 D	960 D	150 D	3.2 J
Acenaphthene	MG/KG	-	62 DJ	53 DJ	75 DJ	23 DJ	9.2
Acenaphthylene	MG/KG	-	390 D	270 D	400 D	78 D	27
Anthracene	MG/KG	-	230 D	170 DJ	230 D	77 D	26
Benzo(a)anthracene	MG/KG	-	120 D	95 DJ	120 D	41 D	23
Benzo(a)pyrene	MG/KG	-	78 DJ	55 DJ	66 DJ	24 DJ	9.9
Benzo(b)fluoranthene	MG/KG	-	52 DJ	32 J	42 DJ	17 DJ	8.4
Benzo(g,h,i)perylene	MG/KG	-	25 DJ	7.6 J	8.3 J	2.9 J	1.7 J
Benzo(k)fluoranthene	MG/KG	-	21 DJ	12 J	11 J	6.6 J	3.4 J
Chrysene	MG/KG	-	120 D	94 DJ	120 D	46 D	23
Dibenz(a,h)anthracene	MG/KG	-	5.6 J	3.5 J	4.2 J	1.8 J	0.96 J
Fluoranthene	MG/KG	-	250 D	170 DJ	200 D	69 D	31
Fluorene	MG/KG	-	250 D	200 D	270 D	82 D	31
Indeno(1,2,3-cd)pyrene	MG/KG	-	21 DJ	8.2 J	8.4 J	3 J	1.8 J
Naphthalene	MG/KG	-	1,200 D	560 D	1,200 D	4.4	3.8 U
Phenanthrene	MG/KG	-	800 D	590 D	780 D	230 D	51

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

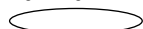
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-205	DGP-206	DGP-207	DGP-208	DGP-211
Sample ID			DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30	DGP-211 28'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0	28.0-30.0
Date Sampled			01/17/09	11/12/08	01/17/09	11/12/08	10/22/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	320 D	240 D	280 D	98 D	45
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	4,804.6	3,210.3	4,774.9	953.7	295.56
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. ND - Not detected.

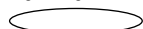
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-205	DGP-206	DGP-207	DGP-208	DGP-211
Sample ID			DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30	DGP-211 28'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0	28.0-30.0
Date Sampled			01/17/09	11/12/08	01/17/09	11/12/08	10/22/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	19.2	15.6	16.8	16.7	13.3
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

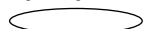
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-217	DGP-217	DGP-234	DGP-234	DGP-251
Sample ID			DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39	DGP-251/10-13
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0	10.0-13.0
Date Sampled			10/16/08	10/17/08	11/06/08	11/06/08	12/29/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.005 J	0.012 U	0.012 U	NA	0.015 J
Ethylbenzene	MG/KG	-	17 D	1.1 D	0.031	NA	57 D
Toluene	MG/KG	-	0.061	0.015	0.012 U	NA	0.079 J
Xylene (total)	MG/KG	-	20 D	1.7 D	0.054	NA	35 D
Total BTEX	MG/KG	50	37.066	2.815	0.085	NA	92.094
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	88 D	88 D	500 D	NA	830 D
Acenaphthene	MG/KG	-	21	38	30	NA	210 D
Acenaphthylene	MG/KG	-	3 J	5.2	200 D	NA	41 DJ
Anthracene	MG/KG	-	16	29	120 D	NA	190 D
Benzo(a)anthracene	MG/KG	-	9.7	25	49	NA	170 D
Benzo(a)pyrene	MG/KG	-	5.3	13	39	NA	100 D
Benzo(b)fluoranthene	MG/KG	-	3.5	10	22	NA	62 DJ
Benzo(g,h,i)perylene	MG/KG	-	1 J	2.7 J	8.6	NA	29 DJ
Benzo(k)fluoranthene	MG/KG	-	2.3 J	4.7 J	9.9 J	NA	32 DJ
Chrysene	MG/KG	-	8.5	22	42	NA	190 D
Dibenz(a,h)anthracene	MG/KG	-	3.5 U	1.4 J	3 J	NA	7.6 J
Fluoranthene	MG/KG	-	15	38	110 D	NA	280 D
Fluorene	MG/KG	-	17	31	150 D	NA	290 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	1.1 J	3.2 J	7.7	NA	23 DJ
Naphthalene	MG/KG	-	96 D	72 D	100 D	NA	500 D
Phenanthrene	MG/KG	-	50	120 D	460 D	NA	1,000 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Detection Limits shown are PQL

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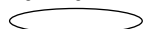
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP*' AND [LOCID] <> 'DGP-203

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-217	DGP-217	DGP-234	DGP-234	DGP-251
Sample ID			DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39	DGP-251/10-13
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0	10.0-13.0
Date Sampled			10/16/08	10/17/08	11/06/08	11/06/08	12/29/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	21	47	180 D	NA	410 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	358.4	550.2	2,031.2	NA	4,364.6
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	0.61 U	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

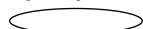
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-217	DGP-217	DGP-234	DGP-234	DGP-251
Sample ID			DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39	DGP-251/10-13
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0	10.0-13.0
Date Sampled			10/16/08	10/17/08	11/06/08	11/06/08	12/29/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	4.72	13.1	16.5	17.5	6.3
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

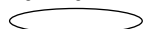
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-253	DGP-257	DGP-261
Sample ID			DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50	DGP-261/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0	33.0-35.0
Date Sampled			12/29/08	12/29/08	10/09/08	11/20/08	11/12/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.013 J	0.12 U	0.012 U	NA	6.4 J
Ethylbenzene	MG/KG	-	8.5 D	11 D	0.003 J	NA	68 D
Toluene	MG/KG	-	0.026 J	0.033 J	0.019 J	NA	250 D
Xylene (total)	MG/KG	-	5.9 D	11 D	0.03 J	NA	380 D
Total BTEX	MG/KG	50	14.439	22.033	0.052	NA	704.4
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	21 D	0.13 J	210 D	NA	1,700 D
Acenaphthene	MG/KG	-	5	0.86	19 DJ	NA	140 DJ
Acenaphthylene	MG/KG	-	2.5	0.21 J	91 D	NA	650 D
Anthracene	MG/KG	-	5.8	1.5	110 D	NA	380 D
Benzo(a)anthracene	MG/KG	-	4.6 J	1.6	67 D	NA	190 DJ
Benzo(a)pyrene	MG/KG	-	3.7 J	0.89	37 D	NA	100 DJ
Benzo(b)fluoranthene	MG/KG	-	2.9 J	0.64	22 DJ	NA	31 D
Benzo(g,h,i)perylene	MG/KG	-	0.84 J	0.28 J	12 DJ	NA	4 J
Benzo(k)fluoranthene	MG/KG	-	1.1 J	0.34 J	9.9 DJ	NA	15 D
Chrysene	MG/KG	-	4.6 J	1.5	58 D	NA	210 DJ
Dibenz(a,h)anthracene	MG/KG	-	0.36 J	0.097 J	36 U	NA	5.1 J
Fluoranthene	MG/KG	-	5.6	2.6	120 D	NA	310 DJ
Fluorene	MG/KG	-	5.9	0.98	140 D	NA	460 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.78 J	0.26 J	9.7 DJ	NA	9.4 J
Naphthalene	MG/KG	-	9.7	0.1 J	10 DJ	NA	2,100 D
Phenanthrene	MG/KG	-	24 D	3.8	440 D	NA	1,200 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP*' AND [LOCID] <> 'DGP-203

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-253	DGP-257	DGP-261
Sample ID			DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50	DGP-261/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0	33.0-35.0
Date Sampled			12/29/08	12/29/08	10/09/08	11/20/08	11/12/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	9.5	3.4	180 D	NA	460 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	107.88	19.187	1,535.6	NA	7,964.5
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	0.56 U	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

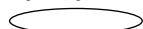
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-253	DGP-257	DGP-261
Sample ID			DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50	DGP-261/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0	33.0-35.0
Date Sampled			12/29/08	12/29/08	10/09/08	11/20/08	11/12/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	6.6	18.1	9.4	10.1	13.7
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

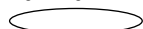
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-262	DGP-263	DGP-264	DGP-265	DGP-266
Sample ID			DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33	DGP-266/5-10
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0	5.0-10.0
Date Sampled			11/12/08	11/13/08	12/30/08	01/05/09	01/05/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.21	0.060 U	0.12 U	0.12 U	0.010 U
Ethylbenzene	MG/KG	-	7.2 D	2.8 D	3.5 D	1.8	0.010 U
Toluene	MG/KG	-	5.4 D	0.3	1.8 DJ	0.038 J	0.010 U
Xylene (total)	MG/KG	-	55 D	32 D	67 D	13 DJ	0.010 U
Total BTEX	MG/KG	50	67.81	35.1	72.3	14.838	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	50 D	70 D	780 D	1,100 D	0.34 U
Acenaphthene	MG/KG	-	3.5	4.2	47 DJ	55 DJ	0.34 U
Acenaphthylene	MG/KG	-	20 D	24 D	350 D	410 D	0.34 U
Anthracene	MG/KG	-	12 D	14 DJ	190 D	210 D	0.34 U
Benzo(a)anthracene	MG/KG	-	5.9	7.1 DJ	75 DJ	79 DJ	0.34 U
Benzo(a)pyrene	MG/KG	-	2.9	3.4	61 DJ	64 DJ	0.34 U
Benzo(b)fluoranthene	MG/KG	-	2.2	2.7	34 DJ	36 DJ	0.34 U
Benzo(g,h,i)perylene	MG/KG	-	0.47	0.49	8.9 J	19 DJ	0.34 U
Benzo(k)fluoranthene	MG/KG	-	0.99 J	0.98 J	6.8 J	11 J	0.34 U
Chrysene	MG/KG	-	5.8	8 DJ	68 DJ	68 DJ	0.34 U
Dibenz(a,h)anthracene	MG/KG	-	0.3 J	0.32 J	3.5 J	3.1 J	0.34 U
Fluoranthene	MG/KG	-	9.8 D	12 DJ	170 D	180 D	0.34 U
Fluorene	MG/KG	-	14 D	17 DJ	220 D	250 D	0.34 U
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.51	0.56	8.3 J	8 J	0.34 U
Naphthalene	MG/KG	-	55 D	85 D	690 D	960 D	0.34 U
Phenanthrene	MG/KG	-	39 D	47 D	700 D	740 D	0.34 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

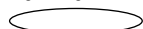
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-262	DGP-263	DGP-264	DGP-265	DGP-266
Sample ID			DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33	DGP-266/5-10
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0	5.0-10.0
Date Sampled			11/12/08	11/13/08	12/30/08	01/05/09	01/05/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	15 D	18 DJ	270 D	280 D	0.34 U
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	237.37	314.75	3,682.5	4,473.1	ND
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

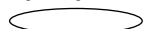
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-262	DGP-263	DGP-264	DGP-265	DGP-266
Sample ID			DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33	DGP-266/5-10
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0	5.0-10.0
Date Sampled			11/12/08	11/13/08	12/30/08	01/05/09	01/05/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	13.2	16.1	16.7	19.5	4.1
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

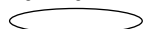
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-267	DGP-270	DGP-271	DGP-272	DGP-275
Sample ID			DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25	DGP-275/35.5-37
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0	35.5-37.0
Date Sampled			01/12/09	01/09/09	01/12/09	01/14/09	01/16/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.10 U	0.061 U	0.11 U	0.059 U	0.011 U
Ethylbenzene	MG/KG	-	0.10 U	0.061 U	2.1	0.059 U	0.011 U
Toluene	MG/KG	-	0.10 U	0.061 U	1.5	0.059 U	0.011 U
Xylene (total)	MG/KG	-	0.10 U	0.061 U	69 D	0.059 U	0.007 J
Total BTEX	MG/KG	50	ND	ND	72.6	ND	0.007
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	0.93	38 DJ	1,900 D	48 D	0.36 U
Acenaphthene	MG/KG	-	0.34 U	11	93	29 DJ	0.36 U
Acenaphthylene	MG/KG	-	0.2 J	38 DJ	710 D	76 D	0.36 U
Anthracene	MG/KG	-	0.34 U	110 D	460 D	100 D	0.36 U
Benzo(a)anthracene	MG/KG	-	0.34 U	52 DJ	210 D	56 D	0.36 U
Benzo(a)pyrene	MG/KG	-	0.37	34 DJ	110	46 D	0.36 U
Benzo(b)fluoranthene	MG/KG	-	0.13 J	22 J	77	28 DJ	0.36 U
Benzo(g,h,i)perylene	MG/KG	-	0.24 J	4.8 J	21	6.1 J	0.36 U
Benzo(k)fluoranthene	MG/KG	-	0.34 U	8.9 J	36 J	6.7 J	0.36 U
Chrysene	MG/KG	-	0.34 U	55 DJ	220 D	53 D	0.36 U
Dibenz(a,h)anthracene	MG/KG	-	0.074 J	2.6 J	10	2.4 J	0.36 U
Fluoranthene	MG/KG	-	0.34 U	110 D	460 D	120 D	0.36 U
Fluorene	MG/KG	-	0.34 U	88 D	630 D	100 D	0.36 U
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.23 J	5.4 J	22	6.2 J	0.36 U
Naphthalene	MG/KG	-	2.6	0.89	1,500 D	0.52 J	0.36 U
Phenanthrene	MG/KG	-	0.088 J	380 D	1,800 D	240 D	0.36 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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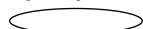
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-267	DGP-270	DGP-271	DGP-272	DGP-275
Sample ID			DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25	DGP-275/35.5-37
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0	35.5-37.0
Date Sampled			01/12/09	01/09/09	01/12/09	01/14/09	01/16/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	0.34 U	160 D	660 D	210 D	0.36 U
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	4.862	1,120.59	8,919	1,127.92	ND
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

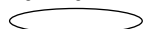
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-267	DGP-270	DGP-271	DGP-272	DGP-275
Sample ID			DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25	DGP-275/35.5-37
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0	35.5-37.0
Date Sampled			01/12/09	01/09/09	01/12/09	01/14/09	01/16/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	3.6	18.6	12	15.8	7.47
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

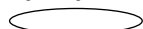
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-277	DGP-278	DGP-278	DGP-278	DGP-279
Sample ID			DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40	DGP-279/29-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0	29.0-30.0
Date Sampled			01/17/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.062 U	0.03 J	0.012 U	0.002 J	0.005 J
Ethylbenzene	MG/KG	-	0.043 J	34 D	0.012 U	0.012 U	0.012 U
Toluene	MG/KG	-	0.054 J	15 D	0.012 U	0.012 U	0.002 J
Xylene (total)	MG/KG	-	22 D	420 D	0.01 J	0.004 J	0.005 J
Total BTEX	MG/KG	50	22.097	469.03	0.01	0.006	0.012
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	110 D	1,500 D	0.45	0.39 U	2.3
Acenaphthene	MG/KG	-	6.3	110 DJ	0.39 U	0.39 U	9.8
Acenaphthylene	MG/KG	-	35 D	460 D	0.2 J	0.39 U	11
Anthracene	MG/KG	-	23 D	320 D	0.19 J	0.39 U	20 D
Benzo(a)anthracene	MG/KG	-	12 DJ	160 D	0.091 J	0.39 U	25 D
Benzo(a)pyrene	MG/KG	-	6.5	86 DJ	0.39 U	0.39 U	10 J
Benzo(b)fluoranthene	MG/KG	-	5.1	56 DJ	0.39 U	0.39 U	11 J
Benzo(g,h,i)perylene	MG/KG	-	0.99	12 J	0.39 U	0.39 U	1.9 J
Benzo(k)fluoranthene	MG/KG	-	1.4 J	14 J	0.39 U	0.39 U	4.8 J
Chrysene	MG/KG	-	12 DJ	160 D	0.1 J	0.39 U	26 D
Dibenz(a,h)anthracene	MG/KG	-	0.56	5.8 J	0.39 U	0.39 U	1.2 J
Fluoranthene	MG/KG	-	21 D	280 D	0.19 J	0.39 U	46 D
Fluorene	MG/KG	-	28 D	370 D	0.21 J	0.39 U	28 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	1.1	12 J	0.39 U	0.39 U	2 J
Naphthalene	MG/KG	-	100 D	1,800 D	0.59	0.39 U	0.51 J
Phenanthrene	MG/KG	-	82 D	1,100 D	0.74	0.39 U	35 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

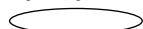
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-277	DGP-278	DGP-278	DGP-278	DGP-279
Sample ID			DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40	DGP-279/29-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0	29.0-30.0
Date Sampled			01/17/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	30 D	380 D	0.27 J	0.39 U	64 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	474.95	6,825.8	3.031	ND	298.51
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

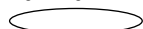
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-277	DGP-278	DGP-278	DGP-278	DGP-279
Sample ID			DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40	DGP-279/29-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0	29.0-30.0
Date Sampled			01/17/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	19.7	16.4	15.4	14.9	17.7
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-280	DGP-281	DGP-281	DGP-281	DGP-283
Sample ID			DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35	DGP-283/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0	25.0-30.0
Date Sampled			01/17/09	01/26/09	01/26/09	01/26/09	01/27/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.013 U	0.054 U	0.058 U	0.012 U	0.012 U
Ethylbenzene	MG/KG	-	0.013 U	4.1 D	3.9 D	0.014 J	0.012 U
Toluene	MG/KG	-	0.013 U	0.054 U	0.058 U	0.012 U	0.012 U
Xylene (total)	MG/KG	-	0.004 J	1.3	3.3	0.014 J	0.005 J
Total BTEX	MG/KG	50	0.004	5.4	7.2	0.028	0.005
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	0.39 J	15 D	31 D	16 D	3.3
Acenaphthene	MG/KG	-	0.18 J	12 D	18 D	7 DJ	4.8
Acenaphthylene	MG/KG	-	0.35 J	1.2	3.9	1.7	11
Anthracene	MG/KG	-	0.78	9 D	18 D	12 D	59 D
Benzo(a)anthracene	MG/KG	-	0.46	4.3	7.1 DJ	5	23 DJ
Benzo(a)pyrene	MG/KG	-	0.25 J	2.2	4.5	2.8	16 DJ
Benzo(b)fluoranthene	MG/KG	-	0.15 J	1.7 J	3.6 J	1.8 J	12 J
Benzo(g,h,i)perylene	MG/KG	-	0.42 U	0.31 J	0.47	0.38 J	2.8
Benzo(k)fluoranthene	MG/KG	-	0.42 U	0.72	1.1	0.89	4.2
Chrysene	MG/KG	-	0.48	3.6	6.4 DJ	4.4	19 DJ
Dibenz(a,h)anthracene	MG/KG	-	0.42 U	0.12 J	0.21 J	0.15 J	0.94
Fluoranthene	MG/KG	-	0.79	7.5 D	16 D	10 D	54 D
Fluorene	MG/KG	-	0.71	10 D	20 D	7.4 DJ	51 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.42 U	0.27 J	0.48	0.38 J	2.3
Naphthalene	MG/KG	-	0.17 J	16 D	21 D	6.9 DJ	0.78 U
Phenanthrene	MG/KG	-	2.5	34 D	72 D	48 D	190 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Detection Limits shown are PQL

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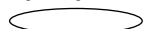
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TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-280	DGP-281	DGP-281	DGP-281	DGP-283
Sample ID			DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35	DGP-283/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0	25.0-30.0
Date Sampled			01/17/09	01/26/09	01/26/09	01/26/09	01/27/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	1.1	12 D	22 D	15 D	97 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	8.31	129.92	245.76	139.8	550.34
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



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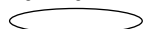
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-280	DGP-281	DGP-281	DGP-281	DGP-283
Sample ID			DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35	DGP-283/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0	25.0-30.0
Date Sampled			01/17/09	01/26/09	01/26/09	01/26/09	01/27/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	20.7	6.2	12.7	15.1	15.6
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

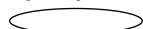
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-295	DGP-296	DGP-298	DGP-299	DGP-300
Sample ID			DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25	DGP-300/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0	33.0-35.0
Date Sampled			07/06/09	07/06/09	07/20/09	07/18/09	07/20/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.028 U	0.006 U	0.17	0.059 U	0.01 J
Ethylbenzene	MG/KG	-	15 DJ	0.21 J	38 DJ	0.4	1
Toluene	MG/KG	-	0.11	0.005 J	1.5 DJ	0.12	0.77
Xylene (total)	MG/KG	-	21 DJ	2.5 DJ	59 DJ	2.6	3.8 D
Total BTEX	MG/KG	50	36.11	2.715	98.67	3.12	5.58
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	270 D	26 D	370 D	32 D	130 D
Acenaphthene	MG/KG	-	84 D	0.97	41 D	0.86	3.5
Acenaphthylene	MG/KG	-	19 DJ	0.71	70 D	4.5	27 D
Anthracene	MG/KG	-	46 D	0.36 J	57 D	2.6	15 JD
Benzo(a)anthracene	MG/KG	-	25 DJ	0.39 U	41 D	1.8	10 JD
Benzo(a)pyrene	MG/KG	-	16 DJ	0.39 U	26 JD	1.2	6.6 JD
Benzo(b)fluoranthene	MG/KG	-	9.8 J	0.39 U	16 J	0.62	2.9
Benzo(g,h,i)perylene	MG/KG	-	1.5 J	0.39 U	2.8	0.26 J	0.92
Benzo(k)fluoranthene	MG/KG	-	5.6 J	0.39 U	17 JD	0.69	4.2
Chrysene	MG/KG	-	25 DJ	0.39 U	38 D	1.7	9.4 JD
Dibenz(a,h)anthracene	MG/KG	-	0.99 J	0.39 U	1.6	0.14 J	0.46
Fluoranthene	MG/KG	-	47 D	0.14 J	69 D	2.9	17 JD
Fluorene	MG/KG	-	53 D	1.6	69 D	2.8	19 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	1.4 J	0.39 U	2.7	0.22 J	0.82
Naphthalene	MG/KG	-	200 D	9.1 D	490 D	65 D	150 D
Phenanthrene	MG/KG	-	170 D	3.5	210 D	12 D	56 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



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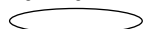
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-295	DGP-296	DGP-298	DGP-299	DGP-300
Sample ID			DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25	DGP-300/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0	33.0-35.0
Date Sampled			07/06/09	07/06/09	07/20/09	07/18/09	07/20/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	66 D	0.47	110 D	4.7	30 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	1,040.29	42.85	1,631.1	133.99	482.8
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
DCL 45	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
DF 100	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Diala A	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Fuel Oil 2	MG/KG	-	11,000 DJN	2,700 DJN	NA	NA	NA
Fuel Oil 4	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Fuel Oil 6	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Gasoline	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
HYVOLT I	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
HYVOLT II	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Kerosene	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	7.6 U	8.0 U	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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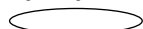
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-295	DGP-296	DGP-298	DGP-299	DGP-300
Sample ID			DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25	DGP-300/33-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0	33.0-35.0
Date Sampled			07/06/09	07/06/09	07/20/09	07/18/09	07/20/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Moisture, Percent	%	-	11.3	16	14	15.2	12.1
Petroleum Base Transformer Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	11,000 D	2,700 D	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	7.6 U	8.0 U	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

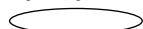
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-303	DGP-304	DGP-309	DGP-309	DGP-310
Sample ID			DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40	DGP-310/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0	25.0-30.0
Date Sampled			09/22/09	07/08/09	07/21/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.0058 U	0.032 U	0.054 U	0.057 U	0.056 U
Ethylbenzene	MG/KG	-	0.0058 U	0.046	18 D	0.15	1.5 D
Toluene	MG/KG	-	0.0058 U	0.032 U	0.32 J	0.057 U	0.09 J
Xylene (total)	MG/KG	-	0.0058 U	0.34	2.6 J	0.34	1.7 J
Total BTEX	MG/KG	50	ND	0.386	20.92	0.49	3.29
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	0.12 J	7.1 D	120 D	32 D	57 D
Acenaphthene	MG/KG	-	0.38 U	0.72	44 D	18 D	17 D
Acenaphthylene	MG/KG	-	0.11 J	3.4	3.5	1.4	1.6
Anthracene	MG/KG	-	0.38 U	3	23 D	7.7 D	11 D
Benzo(a)anthracene	MG/KG	-	0.28 J	1.8	13 JD	3.8	3.8
Benzo(a)pyrene	MG/KG	-	0.31 J	1.6	8 JD	2.4	3
Benzo(b)fluoranthene	MG/KG	-	0.48	0.97	4.1	1.3	1.8
Benzo(g,h,i)perylene	MG/KG	-	0.14 J	0.59	0.96	0.57	0.47
Benzo(k)fluoranthene	MG/KG	-	0.2 J	0.34 J	4.9	1.4	1.6
Chrysene	MG/KG	-	0.32 J	1.5	12 JD	3.5	3.5
Dibenz(a,h)anthracene	MG/KG	-	0.38 U	0.18 J	0.63	0.31 J	0.28 J
Fluoranthene	MG/KG	-	0.32 J	2.7	24 D	8.3 D	9.9 D
Fluorene	MG/KG	-	0.38 U	3.2	26 D	10 D	13 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.14 J	0.44	1.1	0.57	0.45
Naphthalene	MG/KG	-	0.38 U	3	140 D	20 D	38 D
Phenanthrene	MG/KG	-	0.15 J	10 D	71 D	26 D	32 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

Detection Limits shown are PQL

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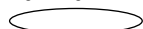
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TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-303	DGP-304	DGP-309	DGP-309	DGP-310
Sample ID			DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40	DGP-310/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0	25.0-30.0
Date Sampled			09/22/09	07/08/09	07/21/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	0.42	5.2	35 D	11 D	14 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	2.99	45.74	531.19	148.25	208.4
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
DCL 45	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
DF 100	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Diala A	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Diesel Fuel Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Fuel Oil 2	MG/KG	-	NA	NA	10,000 DJN	8,000 DJN	15 U
Fuel Oil 4	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Fuel Oil 6	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Gasoline	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
High Viscosity Polybutene	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
HYVOLT I	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
HYVOLT II	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Kerosene	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Low Viscosity Polybutene	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

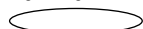
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-303	DGP-304	DGP-309	DGP-309	DGP-310
Sample ID			DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40	DGP-310/25-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0	25.0-30.0
Date Sampled			09/22/09	07/08/09	07/21/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Moisture, Percent	%	-	13.4	20.8	7.9	11.6	10.5
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Silicone Base Transformer Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Sun 4 Cable Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U
Sun 6 Cable Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	370 JN
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	10,000 D	8,000 D	370
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	7.3 U	7.6 U	15 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

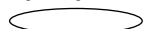
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-312	DGP-320	DGP-320	DGP-321
Sample ID			DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35	DGP-321 / 32-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0	32.0-33.0
Date Sampled			07/21/09	07/01/09	09/28/09	09/28/09	09/25/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	MG/KG	-	0.056 U	0.007 J	0.0057 U	0.055 U	0.8 J
Ethylbenzene	MG/KG	-	0.53	0.036	0.071	1.4	150 D
Toluene	MG/KG	-	0.033 J	0.02 J	0.002 J	0.055 U	210 D
Xylene (total)	MG/KG	-	0.65	0.19	0.12	0.99	520 D
Total BTEX	MG/KG	50	1.213	0.253	0.193	2.39	880.8
Semivolatile Organic Compounds							
2-Methylnaphthalene	MG/KG	-	34 D	66 D	4.6	8.2 D	580 D
Acenaphthene	MG/KG	-	5.2	12 D	3.8	5.4	41 DJ
Acenaphthylene	MG/KG	-	0.37 U	7.9 D	0.81	0.34 J	210 D
Anthracene	MG/KG	-	3.9	15 D	3.3	3.2	110 D
Benzo(a)anthracene	MG/KG	-	1.7	21 D	2	1.7	67 DJ
Benzo(a)pyrene	MG/KG	-	1.1	19 D	1.2	1	31 DJ
Benzo(b)fluoranthene	MG/KG	-	0.56	10 D	0.73 J	0.58 J	19 J
Benzo(g,h,i)perylene	MG/KG	-	0.27 J	5.5 DJ	0.35 J	0.3 J	3.5 J
Benzo(k)fluoranthene	MG/KG	-	0.6	11 D	0.37	0.33 J	5.7 J
Chrysene	MG/KG	-	1.6	25 D	1.8	1.6	65 DJ
Dibenz(a,h)anthracene	MG/KG	-	0.15 J	2.1 DJ	0.13 J	0.1 J	2 J
Fluoranthene	MG/KG	-	3.2	34 D	3.4	3.1	89 DJ
Fluorene	MG/KG	-	3.5	18 D	3.7	3.3	150 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.25 J	4.8 DJ	0.29 J	0.24 J	3.5 J
Naphthalene	MG/KG	-	16 D	48 D	0.28 J	1.2	800 D
Phenanthrene	MG/KG	-	15 D	75 D	16 D	14 D	430 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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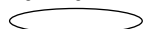
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TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-312	DGP-320	DGP-320	DGP-321
Sample ID			DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35	DGP-321 / 32-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0	32.0-33.0
Date Sampled			07/21/09	07/01/09	09/28/09	09/28/09	09/25/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	MG/KG	-	3.8	61 D	4.8	4.5	160 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	90.83	435.3	47.56	49.09	2,766.7
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
DCL 45	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
DF 100	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Diala A	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Diesel Fuel Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Fuel Oil 2	MG/KG	-	3,200 DJN	NA	2,600 DJN	2,500 DJN	NA
Fuel Oil 4	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Fuel Oil 6	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Gasoline	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
High Viscosity Polybutene	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
HYVOLT I	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
HYVOLT II	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
JP4 (Aviation Fuel)	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Kerosene	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Low Viscosity Polybutene	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

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Concentration Exceeds Criteria

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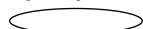
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-312	DGP-320	DGP-320	DGP-321
Sample ID			DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35	DGP-321 / 32-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0	32.0-33.0
Date Sampled			07/21/09	07/01/09	09/28/09	09/28/09	09/25/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Motor Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Moisture, Percent	%	-	11	13.7	11.8	9.48	17.1
Petroleum Base Transformer Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Silicone Base Transformer Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Sun 4 Cable Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Sun 6 Cable Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA
Total Petroleum Hydrocarbons	MG/KG	-	3,200 D	NA	2,600 D	2,500 D	NA
Univolt 60 Transformer Oil	MG/KG	-	7.5 U	NA	7.6 U	7.4 U	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

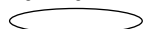
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*				
Volatile Organic Compounds						
Benzene	MG/KG	-	1.7 DJ	0.0056 U	0.0054 U	0.006 U
Ethylbenzene	MG/KG	-	60 D	0.0056 U	0.0054 U	0.006 U
Toluene	MG/KG	-	120 D	0.0056 U	0.0054 U	0.006 U
Xylene (total)	MG/KG	-	390 D	0.0056 U	0.0054 U	0.006 U
Total BTEX	MG/KG	50	571.7	ND	ND	ND
Semivolatile Organic Compounds						
2-Methylnaphthalene	MG/KG	-	830 D	0.088 J	0.36 U	680 D
Acenaphthene	MG/KG	-	59 DJ	0.37 U	0.36 U	38 DJ
Acenaphthylene	MG/KG	-	300 D	0.37 U	0.36 U	230 D
Anthracene	MG/KG	-	150 DJ	0.37 U	0.36 U	120 D
Benzo(a)anthracene	MG/KG	-	100 DJ	0.37 U	0.36 U	64 DJ
Benzo(a)pyrene	MG/KG	-	44 DJ	0.37 U	0.36 U	43 DJ
Benzo(b)fluoranthene	MG/KG	-	20 J	0.37 U	0.36 U	24 DJ
Benzo(g,h,i)perylene	MG/KG	-	4.3 J	0.37 U	0.36 U	18 DJ
Benzo(k)fluoranthene	MG/KG	-	6.6 J	0.37 UJ	0.36 UJ	11 J
Chrysene	MG/KG	-	94 DJ	0.37 U	0.36 U	48 DJ
Dibenz(a,h)anthracene	MG/KG	-	2.7 J	0.37 U	0.36 U	3.4 J
Fluoranthene	MG/KG	-	120 DJ	0.37 U	0.36 U	110 D
Fluorene	MG/KG	-	220 D	0.37 U	0.36 U	170 D
Indeno(1,2,3-cd)pyrene	MG/KG	-	4.7 J	0.37 U	0.36 U	7.9 J
Naphthalene	MG/KG	-	1,100 D	0.2 J	0.36 U	60 DJ
Phenanthrene	MG/KG	-	610 D	0.37 U	0.36 U	570 D

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

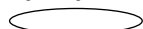
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*				
Semivolatile Organic Compounds						
Pyrene	MG/KG	-	230 D	0.37 U	0.36 U	230 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	3,895.3	0.288	ND	2,427.3
Miscellaneous Parameters						
Alkylate 6	MG/KG	-	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

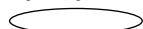
Detection Limits shown are PQL

TABLE 3-1
SOIL ANALYTICAL RESULTS - DGP SAMPLES
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil
Depth Interval (ft)			30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*				
Miscellaneous Parameters						
Motor Oil	MG/KG	-	NA	NA	NA	NA
Moisture, Percent	%	-	15.6	10.1	7.09	17.1
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected.

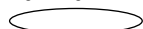
Detection Limits shown are PQL

TABLE 3-2
SOIL ANALYTICAL RESULTS - SAMPLE DGP-203
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203
Sample ID			DGP-203/35'-39'
Matrix			Soil
Depth Interval (ft)			35.0-39.0
Date Sampled			10/28/08
Parameter	Units	Criteria*	
Volatile Organic Compounds			
1,1,1-Trichloroethane	MG/KG	-	0.012 U
1,1,2,2-Tetrachloroethane	MG/KG	-	0.012 U
1,1,2-Trichloroethane	MG/KG	-	0.012 U
1,1-Dichloroethane	MG/KG	-	0.012 U
1,1-Dichloroethene	MG/KG	-	0.012 U
1,2-Dichloroethane	MG/KG	-	0.012 U
1,2-Dichloroethene (total)	MG/KG	-	0.012 U
1,2-Dichloropropane	MG/KG	-	0.012 U
1,3-Dichloropropene (cis)	MG/KG	-	0.012 U
1,3-Dichloropropene (trans)	MG/KG	-	0.012 U
2-Hexanone	MG/KG	-	0.012 UJ
4-Methyl-2-pentanone	MG/KG	-	0.012 U
Acetone	MG/KG	-	0.007 J
Benzene	MG/KG	-	0.012 U
Bromodichloromethane	MG/KG	-	0.012 U
Bromoform	MG/KG	-	0.012 U
Bromomethane	MG/KG	-	0.012 UJ
Carbon disulfide	MG/KG	-	0.012 U
Carbon tetrachloride	MG/KG	-	0.012 U
Chlorobenzene	MG/KG	-	0.012 U
Chloroethane	MG/KG	-	0.012 U
Chloroform	MG/KG	-	0.012 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. NA - The sample was not analyzed for this parameter.

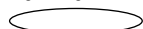
Detection Limits shown are PQL

TABLE 3-2
SOIL ANALYTICAL RESULTS - SAMPLE DGP-203
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203
Sample ID			DGP-203/35'-39'
Matrix			Soil
Depth Interval (ft)			35.0-39.0
Date Sampled			10/28/08
Parameter	Units	Criteria*	
Volatile Organic Compounds			
Chloromethane	MG/KG	-	0.012 U
Dibromochloromethane	MG/KG	-	0.012 U
Ethylbenzene	MG/KG	-	0.012 U
Methyl ethyl ketone (2-Butanone)	MG/KG	-	0.012 UJ
Methyl tert-butyl ether	MG/KG	-	0.012 U
Methylene chloride	MG/KG	-	0.012 UJ
Styrene	MG/KG	-	0.004 J
Tetrachloroethene	MG/KG	-	0.012 U
Toluene	MG/KG	-	0.004 J
Trichloroethene	MG/KG	-	0.012 U
Vinyl chloride	MG/KG	-	0.012 U
Xylene (total)	MG/KG	-	0.006 J
Total BTEX	MG/KG	50	0.01
Semivolatile Organic Compounds			
1,2,4-Trichlorobenzene	MG/KG	-	0.38 U
1,2-Dichlorobenzene	MG/KG	-	0.38 U
1,3-Dichlorobenzene	MG/KG	-	0.38 U
1,4-Dichlorobenzene	MG/KG	-	0.38 U
2,2-oxybis(1-Chloropropane)	MG/KG	-	0.38 UJ
2,4,5-Trichlorophenol	MG/KG	-	0.96 U
2,4,6-Trichlorophenol	MG/KG	-	0.38 U
2,4-Dichlorophenol	MG/KG	-	0.38 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. NA - The sample was not analyzed for this parameter.

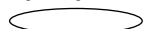
Detection Limits shown are PQL

TABLE 3-2
SOIL ANALYTICAL RESULTS - SAMPLE DGP-203
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203
Sample ID			DGP-203/35'-39'
Matrix			Soil
Depth Interval (ft)			35.0-39.0
Date Sampled			10/28/08
Parameter	Units	Criteria*	
Semivolatile Organic Compounds			
2,4-Dimethylphenol	MG/KG	-	0.38 UJ
2,4-Dinitrophenol	MG/KG	-	0.96 UJ
2,4-Dinitrotoluene	MG/KG	-	0.38 U
2,6-Dinitrotoluene	MG/KG	-	0.38 U
2-Chloronaphthalene	MG/KG	-	0.38 U
2-Chlorophenol	MG/KG	-	0.38 U
2-Methylnaphthalene	MG/KG	-	0.18 J
2-Methylphenol (o-cresol)	MG/KG	-	0.38 UJ
2-Nitroaniline	MG/KG	-	0.96 UJ
2-Nitrophenol	MG/KG	-	0.38 U
3,3-Dichlorobenzidine	MG/KG	-	0.38 U
3-Nitroaniline	MG/KG	-	0.96 UJ
4,6-Dinitro-2-methylphenol	MG/KG	-	0.96 U
4-Bromophenyl-phenylether	MG/KG	-	0.38 U
4-Chloro-3-methylphenol	MG/KG	-	0.38 U
4-Chloroaniline	MG/KG	-	0.38 U
4-Chlorophenyl-phenylether	MG/KG	-	0.38 U
4-Methylphenol (p-cresol)	MG/KG	-	0.38 U
4-Nitroaniline	MG/KG	-	0.96 U
4-Nitrophenol	MG/KG	-	0.96 UJ
Acenaphthene	MG/KG	-	0.38 U
Acenaphthylene	MG/KG	-	0.38 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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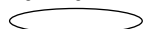
Detection Limits shown are PQL

TABLE 3-2
SOIL ANALYTICAL RESULTS - SAMPLE DGP-203
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203
Sample ID			DGP-203/35'-39'
Matrix			Soil
Depth Interval (ft)			35.0-39.0
Date Sampled			10/28/08
Parameter	Units	Criteria*	
Semivolatile Organic Compounds			
Anthracene	MG/KG	-	0.38 U
Benzo(a)anthracene	MG/KG	-	0.38 U
Benzo(a)pyrene	MG/KG	-	0.38 U
Benzo(b)fluoranthene	MG/KG	-	0.38 U
Benzo(g,h,i)perylene	MG/KG	-	0.38 U
Benzo(k)fluoranthene	MG/KG	-	0.38 U
bis(2-Chloroethoxy)methane	MG/KG	-	0.38 UJ
bis(2-Chloroethyl)ether	MG/KG	-	0.38 UJ
bis(2-Ethylhexyl)phthalate	MG/KG	-	0.38 UJ
Butylbenzylphthalate	MG/KG	-	0.38 U
Carbazole	MG/KG	-	0.38 U
Chrysene	MG/KG	-	0.38 U
Dibenz(a,h)anthracene	MG/KG	-	0.38 U
Dibenzofuran	MG/KG	-	0.38 U
Diethylphthalate	MG/KG	-	0.38 U
Dimethylphthalate	MG/KG	-	0.38 U
Di-n-butylphthalate	MG/KG	-	0.38 U
Di-n-octylphthalate	MG/KG	-	0.38 U
Fluoranthene	MG/KG	-	0.38 U
Fluorene	MG/KG	-	0.38 U
Hexachlorobenzene	MG/KG	-	0.38 U
Hexachlorobutadiene	MG/KG	-	0.38 U

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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D - Result reported from a secondary dilution analysis. NA - The sample was not analyzed for this parameter.

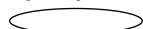
Detection Limits shown are PQL

TABLE 3-2
SOIL ANALYTICAL RESULTS - SAMPLE DGP-203
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203
Sample ID			DGP-203/35'-39'
Matrix			Soil
Depth Interval (ft)			35.0-39.0
Date Sampled			10/28/08
Parameter	Units	Criteria*	
Semivolatile Organic Compounds			
Hexachlorocyclopentadiene	MG/KG	-	0.38 U
Hexachloroethane	MG/KG	-	0.38 UJ
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.38 U
Isophorone	MG/KG	-	0.38 UJ
Naphthalene	MG/KG	-	0.39
Nitrobenzene	MG/KG	-	0.38 U
N-Nitroso-di-n-propylamine	MG/KG	-	0.38 U
N-Nitrosodiphenylamine	MG/KG	-	0.38 U
Pentachlorophenol	MG/KG	-	0.96 U
Phenanthrene	MG/KG	-	0.38 U
Phenol	MG/KG	-	0.38 U
Pyrene	MG/KG	-	0.38 U
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	0.57
Miscellaneous Parameters			
Moisture, Percent	%	-	13.4

*Criteria- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

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UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

Table 3-3
Environmental Forensic Interpretations
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Classification	Tentative Identification
DGP-71	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and low levels of middle distillate)
HIMW-01S	LNAPL	Pyrogenic	TLM
HIMW-11S	LNAPL	Petrogenic/Pyrogenic	Mix of weathered distillate fuel oil (No. 2 fuel oil or diesel) and TLM
HIMW-10S	DNAPL	Petrogenic	Distillate fuel oil (No. 2 fuel oil or diesel)
HIMW-06S	DNAPL	Pyrogenic	TLM
HISB-40 (18-20')	Soil	Petrogenic	Weathered distillate fuel oil
HISB-40 (26-28')	Soil	Petrogenic	Weathered distillate fuel oil
HISB-40 (32-34')	Soil	Pyrogenic	Weathered TLM
HISB-41 (26-28')	Soil	Petrogenic/Pyrogenic	Weathered distillate fuel oil & TLM
HISB-43 (0-2')	Soil	Petrogenic/Pyrogenic	Severely weathered heavy oil & TLM
HISB-43 (16-18')	Soil	Petrogenic	Possible lubricating or hydraulic oil or severely weathered No. 2 fuel oil
HISB-43 (26-28')	Soil	Unknown	Unknown
HISB-43 (61-63')	Soil	Unknown	Unknown
HISB-44 (6-8')	Soil	Petrogenic/Pyrogenic	Weathered wide boiling point range fuel or mixture of older & more modern petroleum products
HISB-44 (16-18')	Soil	Petrogenic/Pyrogenic	Weathered wide boiling point range fuel or mixture of older & more modern petroleum products
HISB-44 (24-26')	Soil	Pyrogenic	TLM
HISB-53 (0-4')	Soil	Unknown	Unknown
HISB-55 (0-5')	Soil	Unknown	Unknown
HISB-56 (0-4')	Soil	Unknown	Unknown
HISB-58 (21 - 24')	Soil	Petrogenic/Pyrogenic	Kerosene range (possible petroleum solvents) & unidentified PAH source
HISB-58 (30 - 32')	Soil	Pyrogenic	Probable CWG TLM
HISB-60 (17 - 19')	Soil	Petrogenic/Pyrogenic	Kerosene range (possible petroleum solvents) & unidentified PAH source
HISB-70 (25 - 27')	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and heavy distillate) and weathered distillate fuel oil
HISB-70 (31 - 33')	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and heavy distillate) and weathered distillate fuel oil
HISB-78 (26 - 28')	Soil	Petrogenic/Pyrogenic	Weathered heavy distillate fuel oil & unidentified PAH source
HISB-79 (34 - 35')	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and heavy distillate) & weathered distillate fuel oil
HISB-83 (5 - 10')	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and low levels of middle distillate)
HISB-83 (10 - 15')	Soil	Pyrogenic/Petrogenic	Mix TLM (likely CWG and low levels of middle distillate)
HISB-110 (20 - 25')	Soil	Petrogenic/Pyrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-110 (25 - 29')	Soil	Petrogenic/Pyrogenic	Weathered distillate fuel oil & TLM (likely CWG)

Table 3-3
Environmental Forensic Interpretations
Pre-Design Investigation Report
Hempstead Former MGP Site

Location	Matrix	Classification	Tentative Identification
HISB-110 (29 - 30')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-111 (20 - 25')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-111 (30 - 35')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-112 (25 - 30')	Soil	Petrogenic/Pyrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-112 (32 - 35')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
HISB-112	LNAPL	Petrogenic/Pyrogenic	Mix weathered distillate fuel oil plus TLM
HISB-113 (25 - 30')	Soil	Petrogenic	Weathered distillate fuel oil
HISB-113 (30 - 35')	Soil	Petrogenic	Weathered distillate fuel oil
OSMW-2 (20 - 25')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
OWMS-3 (30 - 35')	Soil	Pyrogenic/Petrogenic	Weathered distillate fuel oil & TLM (likely CWG)
DGP-295 (25 - 30')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2 and heavier weighted PAHs)
DGP-296 (30 - 35')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2)
DGP-309 (25 - 30')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2 with heavier weighted PAHs)
DGP-309 (35 - 40')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2 with heavier weighted PAHs)
DGP-310 (25 - 30')	Soil	Dielectric/Petrogenic	Middle-heavy distillate oil (likely Sun 6 Cable Oil with heavier weighted PAHs)
DGP-310 (35 - 40')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2 with heavier weighted PAHs)
DGP-320 (25 - 30')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2)
DGP-320 (30 - 35')	Soil	Unknown	Weathered distillate fuel oil (likely Fuel Oil #2)

Notes:

CWG	Carbureted Water Gas
DNAPL	Dense Non-Aqueous Phase Liquid
LNAPL	Light Non-Aqueous Phase Liquid
TLM	Tar-Like Material

Table 3-4
Geotechnical Laboratory Test Results
Pre-Design Investigation Report
Hempstead Former MGP Sites

Boring No.	Depth (ft bgs)	IDENTIFICATION TESTS					
		Water Content (%)	USCS Symbol	Sieve Minus No. 200 (%)	Hydrometer Minus 2 mm (%)	Organic Content (Burnoff) (%)	Specific Gravity
GTB-101	4-7	28.6	CL	58.9		7.6	2.585
GTB-101	7-20	5.1	SP	2.2		0.5	1.159
GTB-101	20-40	7.4	SP	1.1		0.6	1.559
HISB-102	30-34	16.8	SP	2.1			
HISB-102	50-54	18.9	SP	1.3			
HISB-106	35-45	17.7	SP	2.9	1	0.3	2.663
HISB-106	49-53	18.0	SP	4.7			
HISB-106	65-85	31.0	SP-SM	7.2	2	0.4	2.680
HISB-106	70-74	36.3	SP-SM	5.4			
HISB-108	50-55	22.0	SP	1.5			
HISB-108	70-75	19.0	SP-SM	6.2			

Notes:

USCS symbol based on visual observation and Sieve reported.
ft bgs feet below ground surface
USCS Unified Soil Classification System

Table 3-5
Hydraulic Conductivity Test Results
Pre-Design Investigation Report
Hempstead Former MGP Site

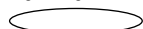
Location	Hydraulic Conductivity (ft/day)	Hydraulic Conductivity (cm/sec)
HIMW-02I	94	3.3×10^{-2}
HIMW-02D	122	4.3×10^{-2}
HIMW-03S	151	5.3×10^{-2}
HIMW-03I	66	2.3×10^{-2}
HISB-03D	88	3.1×10^{-2}
HIMW-08S	133	4.7×10^{-2}
HIMW-08D	103	3.7×10^{-2}
HIMW-12S	204	7.2×10^{-2}
HIMW-13S	172	6.1×10^{-2}
HIMW-15I	173	6.1×10^{-2}
HIMW-15D	135	4.8×10^{-2}
HIMW-20S	142	5.0×10^{-2}
HIMW-20I	134	4.7×10^{-2}

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-209	DGP-209	DGP-209	DGP-209	HIMW-012I
Sample ID			DGP-209/34'-38'	DGP-209/GW/40-44	DGP-209/GW/50-54	DGP-209/GW/70-74	HIMW-12I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			34.0-38.0	40.0-44.0	50.0-54.0	70.0-74.0	-
Date Sampled			11/11/08	11/11/08	11/13/08	11/14/08	01/12/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	620 D	4,300 D	2,900 D	2	41
Ethylbenzene	UG/L	-	89	130	49	1 U	3
Toluene	UG/L	-	260 D	150	110	1 U	1 U
Xylene (total)	UG/L	-	740 D	400 D	800 D	1 U	9
Total BTEX	UG/L	100	1,709	4,980	3,859	2	53
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	190 DJ	44	97 DJ	10 U	10 U
Acenaphthene	UG/L	-	10	3 J	6 J	10 U	30
Acenaphthylene	UG/L	-	65	38	67	10 U	37
Anthracene	UG/L	-	2 J	1 J	2 J	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	16	11	12	10 U	22
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	770 D	530 DJ	1,100 DJ	3 J	3 J
Phenanthrene	UG/L	-	13	18	13	10 U	8 J

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

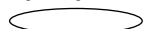
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-209	DGP-209	DGP-209	DGP-209	HIMW-012I
Sample ID			DGP-209/34'-38'	DGP-209/GW/40-44	DGP-209/GW/50-54	DGP-209/GW/70-74	HIMW-12I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			34.0-38.0	40.0-44.0	50.0-54.0	70.0-74.0	-
Date Sampled			11/11/08	11/11/08	11/13/08	11/14/08	01/12/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,066	645	1,297	3	100
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	70.2
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

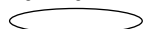
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012I' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013I' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020I' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012S	HIMW-013I	HIMW-013S	HIMW-020I	HIMW-020S
Sample ID			HIMW-12S	HIMW-13I	HIMW-13S	HIMW-020I	HIMW-020S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/12/09	01/12/09	01/12/09	02/04/09	02/04/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1	38	1 U	140	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	46	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	10	7	1 U	38	1 U
Total BTEX	UG/L	100	11	45	ND	224	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	2 J	10 U
Acenaphthene	UG/L	-	10 U	6 J	10 U	9 J	10 U
Acenaphthylene	UG/L	-	10 U	46	10 U	120 D	10 U
Anthracene	UG/L	-	10 U	2 J	10 U	1 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	13	10 U	20	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	11	10 U
Phenanthrene	UG/L	-	10 U	13 J	10 U	16	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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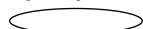
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012S	HIMW-013I	HIMW-013S	HIMW-020I	HIMW-020S
Sample ID			HIMW-12S	HIMW-13I	HIMW-13S	HIMW-020I	HIMW-020S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			01/12/09	01/12/09	01/12/09	02/04/09	02/04/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	80	ND	179	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	38.5	120	20.2	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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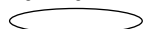
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Printed: 12/1/2009 2:40:44 PM
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-100	HISB-100	HISB-100
Sample ID			HISB-100/GW/30-34	HISB-100/GW/40-44	HISB-100/GW/50-54	HISB-100/GW/60-64	20081121-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			11/19/08	11/19/08	11/19/08	11/19/08	11/21/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	6,100 D	160	630 D	400 DJ
Ethylbenzene	UG/L	-	1 U	700 D	82	260 D	3
Toluene	UG/L	-	1 U	4,100 D	49	170 D	14
Xylene (total)	UG/L	-	1 U	1,100 D	150	410 D	250
Total BTEX	UG/L	100	ND	12,000	441	1,470	667
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	160 DJ	55	36	300 D
Acenaphthene	UG/L	-	10 U	8 J	3 J	2 J	7 J
Acenaphthylene	UG/L	-	10 U	76	21	23	69
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	18	8 J	4 J	6 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	1,300 D	240 D	530 D	1,300 DJ
Phenanthrene	UG/L	-	10 U	14	5 J	4 J	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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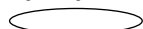
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-100	HISB-100	HISB-100
Sample ID			HISB-100/GW/30-34	HISB-100/GW/40-44	HISB-100/GW/50-54	HISB-100/GW/60-64	20081121-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			11/19/08	11/19/08	11/19/08	11/19/08	11/21/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	1,576	332	599	1,682
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	112	NA	16.6	NA	NA
Nitrate-Nitrogen	MG/L	-	3.92	NA	0.11	NA	NA
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	NA
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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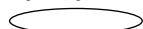
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-101	HISB-101	HISB-101
Sample ID			HISB-100/GW/70-74	HISB-100/GW/80-84	20081119-FD-1	HISB-101/GW/30-34	HISB-101/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	30.0-34.0	40.0-44.0
Date Sampled			11/21/08	11/21/08	11/19/08	11/19/08	11/19/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	490 DJ	12 J	46	49	7,400 D
Ethylbenzene	UG/L	-	3 J	2 J	4	5	1,000 D
Toluene	UG/L	-	14 J	3 J	5	7	3,400 D
Xylene (total)	UG/L	-	240 J	5 J	58	61	2,300 D
Total BTEX	UG/L	100	747	22	113	122	14,100
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	330 D	3 J	24	31	620 D
Acenaphthene	UG/L	-	7 J	10 U	4 J	6 J	12
Acenaphthylene	UG/L	-	67	10 U	27	35	250 DJ
Anthracene	UG/L	-	10 U	10 U	1 J	2 J	5 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	5 J	10 U	6 J	8 J	32
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	1,400 DJ	18 J	62	96 D	3,400 D
Phenanthrene	UG/L	-	10 U	10 U	8 J	11	37

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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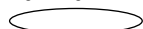
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-101	HISB-101	HISB-101
Sample ID			HISB-100/GW/70-74	HISB-100/GW/80-84	20081119-FD-1	HISB-101/GW/30-34	HISB-101/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	30.0-34.0	40.0-44.0
Date Sampled			11/21/08	11/21/08	11/19/08	11/19/08	11/19/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	1 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,809	21	132	190	4,356
Miscellaneous Parameters							
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	24.2	31.8	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	0.22	0.32	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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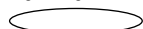
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-101	HISB-101	HISB-101	HISB-101	HISB-102
Sample ID			HISB-101/GW/50-54	HISB-101/GW/60-64	HISB-101/GW/70-74	HISB-101/GW/80-84	HISB-102/GW/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0
Date Sampled			11/19/08	11/19/08	11/20/08	11/20/08	12/01/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	2,300 D	1,200 D	1	1 U	27 J
Ethylbenzene	UG/L	-	300 D	71	1 U	1 U	500 DJ
Toluene	UG/L	-	340 D	94	3	1	73 J
Xylene (total)	UG/L	-	1,100 D	630 D	1 U	1 U	1,200 DJ
Total BTEX	UG/L	100	4,040	1,995	4	1	1,800
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	140 DJ	18	10 U	10 U	380 DJ
Acenaphthene	UG/L	-	15	9 J	10 U	10 U	28
Acenaphthylene	UG/L	-	210 DJ	120 DJ	10 U	10 U	46
Anthracene	UG/L	-	6 J	10 U	10 U	10 U	5 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	39	18	10 U	10 U	24
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2,800 D	1,900 D	4 J	2 J	2,200 D
Phenanthrene	UG/L	-	34	9 J	10 U	10 U	23

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

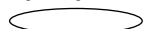
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J:\11175065.00000\DB\Program\EDMS.mdx
Printed: 12/1/2009 2:40:44 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012*' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013*' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020*' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-101	HISB-101	HISB-101	HISB-101	HISB-102
Sample ID			HISB-101/GW/50-54	HISB-101/GW/60-64	HISB-101/GW/70-74	HISB-101/GW/80-84	HISB-102/GW/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0
Date Sampled			11/19/08	11/19/08	11/20/08	11/20/08	12/01/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	3,244	2,074	4	2	2,706
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	143	NA	NA	NA	97.5
Nitrate-Nitrogen	MG/L	-	0.29	NA	NA	NA	0.12
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	0.05 U	NA	NA	NA	0.08

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

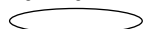
Advanced Selection: PDI GWs - Tbl 3-4
J:\11175065.00000\DB\Program\EDMS.mdx
Printed: 12/1/2009 2:40:45 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102	HISB-102	HISB-102	HISB-102	HISB-102
Sample ID			HISB-102/GW/40-44	HISB-102/GW/50-54	HISB-102/GW/60-64	HISB-102/GW/70-74	HISB-102/GW/80-84
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0
Date Sampled			12/01/08	12/01/08	12/01/08	12/02/08	12/02/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	39 J	1 U	1 U	1 U	2
Ethylbenzene	UG/L	-	440 DJ	3	1 U	1	22
Toluene	UG/L	-	16 J	2	1 U	1 U	18
Xylene (total)	UG/L	-	340 DJ	220	1 U	1 U	34
Total BTEX	UG/L	100	835	225	ND	1	76
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	140 DJ	470 DJ	3 J	10 U	16
Acenaphthene	UG/L	-	110 DJ	17	10 U	10 U	3 J
Acenaphthylene	UG/L	-	33	190 DJ	2 J	10 U	6 J
Anthracene	UG/L	-	13	2 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	3 J	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	53	41	10 U	10 U	2 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	700 D	2,000 D	5 J	4 J	100 D
Phenanthrene	UG/L	-	64	13	10 U	10 U	3 J

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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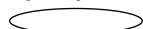
Advanced Selection: PDI GWs - Tbl 3-4
J:\11175065.00000\DB\Program\EDMS.mdx
Printed: 12/1/2009 2:40:45 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012*' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013*' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020*' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102	HISB-102	HISB-102	HISB-102	HISB-102
Sample ID			HISB-102/GW/40-44	HISB-102/GW/50-54	HISB-102/GW/60-64	HISB-102/GW/70-74	HISB-102/GW/80-84
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0
Date Sampled			12/01/08	12/01/08	12/01/08	12/02/08	12/02/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	3 J	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,119	2,735	10	4	130
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	49.8	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	0.54	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	0.1 U	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Advanced Selection: PDI GWs - Tbl 3-4
J:\11175065.00000\DB\Program\EDMS.mdx
Printed: 12/1/2009 2:40:45 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2
Sample ID			HISB-102-2/GW/60-64	HISB-102-2/GW/70-74	HISB-102-2/GW/80-84	HISB-102-2/GW/30-34	HISB-102-2/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0	40.0-44.0
Date Sampled			01/07/09	01/07/09	01/07/09	01/08/09	01/08/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	15 J	10 UR	10 UR	12	23
Ethylbenzene	UG/L	-	4 J	2 J	10 UR	190	250 D
Toluene	UG/L	-	10 UR	10 UR	10 UR	21 J	11 J
Xylene (total)	UG/L	-	49 J	3 J	10 UR	200	180
Total BTEX	UG/L	100	68	5	ND	423	464
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	75	10 U	10 U	120 D	11
Acenaphthene	UG/L	-	9 J	10 U	10 U	25	20
Acenaphthylene	UG/L	-	28	10 U	10 U	20	57
Anthracene	UG/L	-	2 J	10 U	10 U	2 J	2 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	9 J	10 U	10 U	11	17
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	320 D	5 J	1 J	670 D	150 D
Phenanthrene	UG/L	-	10	10 U	10 U	11	17

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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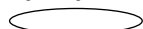
Advanced Selection: PDI GWs - Tbl 3-4
J:\11175065.00000\DB\Program\EDMS.mdx
Printed: 12/1/2009 2:40:45 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2
Sample ID			HISB-102-2/GW/60-64	HISB-102-2/GW/70-74	HISB-102-2/GW/80-84	HISB-102-2/GW/30-34	HISB-102-2/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0	40.0-44.0
Date Sampled			01/07/09	01/07/09	01/07/09	01/08/09	01/08/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	453	5	1	859	274
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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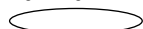
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #9/01/08# AND #6/23/09# AND ([[LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([[LOGDATE] <= #10/28/2008# AND [LOGDATE] > #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-103	HISB-103	HISB-103	HISB-103
Sample ID			HISB-102-2/GW/50-54	HISB-103/GW/30-34	HISB-103/GW/40-44	HISB-103/GW/50-54	HISB-103/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0
Date Sampled			01/08/09	12/01/08	12/01/08	12/01/08	12/01/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	652	ND	6	171	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	34.6	NA	58.2	NA
Nitrate-Nitrogen	MG/L	-	NA	23.6	NA	0.19	NA
Nitrite-Nitrogen	MG/L	-	NA	0.66	NA	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Advanced Selection: PDI GWs - Tbl 3-4
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-103	HISB-103	HISB-104	HISB-104	HISB-104
Sample ID			HISB-103/GW/70-74	HISB-103/GW/80-84	HISB-104/30-34	HISB-104/45-49	HISB-104/55-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	45.0-49.0	55.0-59.0
Date Sampled			12/02/08	12/02/08	09/24/08	09/25/08	09/25/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	5	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	5	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	1 J	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

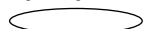
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-103	HISB-103	HISB-104	HISB-104	HISB-104
Sample ID			HISB-103/GW/70-74	HISB-103/GW/80-84	HISB-104/30-34	HISB-104/45-49	HISB-104/55-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	45.0-49.0	55.0-59.0
Date Sampled			12/02/08	12/02/08	09/24/08	09/25/08	09/25/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	9	ND	ND	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	63.7	NA	15.9
Nitrate-Nitrogen	MG/L	-	NA	NA	4.84	NA	3.66
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105	HISB-105	HISB-105
Sample ID			HISB-105/GW/30-34	HISB-105/GW/40-44	HISB-105/GW/50-54	HISB-105/GW/60-64	HISB-105/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 UR	1 U	6 J	3	4 J
Ethylbenzene	UG/L	-	1 UR	1 U	160 J	190	12 J
Toluene	UG/L	-	1 UR	1 U	33 J	230 DJ	4 J
Xylene (total)	UG/L	-	1 UR	1 U	270 J	620 DJ	40 J
Total BTEX	UG/L	100	ND	ND	469	1,043	60
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	2 J	10 U	430 DJ	3 J
Acenaphthene	UG/L	-	10 U	18	10 U	13	1 J
Acenaphthylene	UG/L	-	10 U	44	10 U	180 DJ	12
Anthracene	UG/L	-	10 U	2 J	10 U	2 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	17	10 U	25	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	410 D	10 U	2,400 D	43
Phenanthrene	UG/L	-	10 U	22	10 U	8 J	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Detection Limits shown are PQL

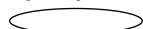
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105	HISB-105	HISB-105
Sample ID			HISB-105/GW/30-34	HISB-105/GW/40-44	HISB-105/GW/50-54	HISB-105/GW/60-64	HISB-105/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	518	ND	3,058	59
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	61.0	NA	90.2
Nitrate-Nitrogen	MG/L	-	NA	NA	0.10	NA	0.13
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

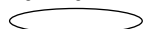
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105/GW/80-84	HISB-105/GW/90-94	HISB-105-2/GW/30-34	HISB-105-2/GW/40-44	HISB-105-2/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	7.0	5.7	1 UR	1 UR	9 J
Ethylbenzene	UG/L	-	99	8.6	3 J	4 J	70 J
Toluene	UG/L	-	2.6	9.9	5 J	2 J	18 J
Xylene (total)	UG/L	-	170	24	7 J	8 J	150 J
Total BTEX	UG/L	100	278.6	48.2	15	14	247
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	77 DJ	5 J	10 U	3 J	55
Acenaphthene	UG/L	-	9 J	10 U	10 U	10 U	11
Acenaphthylene	UG/L	-	91 DJ	3 J	1 J	2 J	39
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	13	10 U	10 U	10 U	4 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	380 D	91 D	18 J	30 J	800 DJ
Phenanthrene	UG/L	-	6 J	10 U	10 U	10 U	2 J

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Concentration Exceeds Criteria

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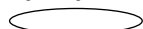
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105/GW/80-84	HISB-105/GW/90-94	HISB-105-2/GW/30-34	HISB-105-2/GW/40-44	HISB-105-2/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	576	99	19	35	912
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Advanced Selection: PDI GWs - Tbl 3-4
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105-2/GW/60-64	HISB-105-2/GW/70-74	HISB-105-2/GW/80-84	HISB-105-2/GW/90-94	HISB-105-2/GW/100-104
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			12/18/08	12/18/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	2 J	3 J	3 J	11 J	1 UR
Ethylbenzene	UG/L	-	130 J	15 J	2 J	1 UR	1 UR
Toluene	UG/L	-	88 J	3 J	2 J	2 J	1 J
Xylene (total)	UG/L	-	340 DJ	38 J	7 J	11 J	1 UR
Total BTEX	UG/L	100	560	59	14	24	1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	390 DJ	2 J	8 J	29	10 U
Acenaphthene	UG/L	-	33	3 J	2 J	10 U	10 U
Acenaphthylene	UG/L	-	180 DJ	8 J	6 J	2 J	10 U
Anthracene	UG/L	-	2 J	10 UR	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 UJ	10 UR	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Fluorene	UG/L	-	30	1 J	1 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Naphthalene	UG/L	-	2,300 D	18	52 J	190 DJ	10 UJ
Phenanthrene	UG/L	-	6 J	2 J	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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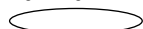
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Printed: 12/1/2009 2:40:45 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105-2/GW/60-64	HISB-105-2/GW/70-74	HISB-105-2/GW/80-84	HISB-105-2/GW/90-94	HISB-105-2/GW/100-104
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			12/18/08	12/18/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	2,941	34	69	221	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

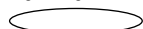
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-106	HISB-106	HISB-106
Sample ID			HISB-106/GW/30-34	HISB-106/GW/40-44	HISB-106/GW/50-54	HISB-106/GW/60-64	HISB-106/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	46	590 D	660 DJ	480 DJ	30
Ethylbenzene	UG/L	-	3.0	480 D	40 J	6.6 J	7.3
Toluene	UG/L	-	19	1.8	160 J	38 J	3.7
Xylene (total)	UG/L	-	350 D	90	940 DJ	290 J	27
Total BTEX	UG/L	100	418	1,161.8	1,800	814.6	68
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	32	10 U	310 DJ	4 J	2 J
Acenaphthene	UG/L	-	11	20	40	8 J	1 J
Acenaphthylene	UG/L	-	27	48	120 DJ	23	3 J
Anthracene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	14	18	25	5 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	510 D	270 D	2,000 D	530 D	45
Phenanthrene	UG/L	-	8 J	22	18	2 J	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

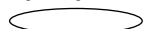
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J:\11175065.00000\DB\Program\EDMS.mdx
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012*' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013*' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020*' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-106	HISB-106	HISB-106
Sample ID			HISB-106/GW/30-34	HISB-106/GW/40-44	HISB-106/GW/50-54	HISB-106/GW/60-64	HISB-106/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	602	383	2,513	572	51
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	50.6	NA	23.6
Nitrate-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.13
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

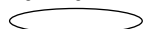
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-107	HISB-107	HISB-107
Sample ID			HISB-106/GW/80-84	HISB-106/GW/90-94	HISB-107/GW/30-34	HISB-107/GW/40-44	20081208-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/08/08	12/08/08	12/08/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	16	56	1 U	6.6	17
Ethylbenzene	UG/L	-	4.5	11	1 U	170	330 D
Toluene	UG/L	-	2.6	8.7	1 U	1.9	13
Xylene (total)	UG/L	-	15	48	1 U	38	190
Total BTEX	UG/L	100	38.1	123.7	ND	216.5	550
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	2 J	6 J	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	3 J	10 U	12	60
Acenaphthylene	UG/L	-	1 J	5 J	10 U	7 J	33
Anthracene	UG/L	-	10 U	12 U	10 U	1 J	7 J
Benzo(a)anthracene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	2 J
Fluorene	UG/L	-	10 U	2 J	10 U	5 J	35
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Naphthalene	UG/L	-	27	80	10 U	11	68
Phenanthrene	UG/L	-	10 U	2 J	10 U	11	42

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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NA - The sample was not analyzed for this parameter.

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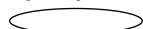
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-0121' OR [LOCID] = 'HIMW-0125' OR [LOCID] = 'HIMW-0131' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-0201' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-107	HISB-107	HISB-107
Sample ID			HISB-106/GW/80-84	HISB-106/GW/90-94	HISB-107/GW/30-34	HISB-107/GW/40-44	20081208-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/08/08	12/08/08	12/08/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	12 U	10 U	10 U	2 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	30	98	ND	47	249
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	76.2
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	0.11
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

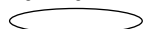
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-107	HISB-107	HISB-107	HISB-107	HISB-107
Sample ID			HISB-107/GW/50-54	HISB-107/GW/60-64	HISB-107/GW/70-74	HISB-107/GW/80-84	HISB-107/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0
Date Sampled			12/08/08	12/08/08	12/09/08	12/09/08	12/09/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	17	3.7	1 U	1 U	1.6
Ethylbenzene	UG/L	-	340 D	8.3	1 U	1 U	11
Toluene	UG/L	-	14	2.6	1 U	1 U	2.4
Xylene (total)	UG/L	-	180	14	1 U	1 U	9.3
Total BTEX	UG/L	100	551	28.6	ND	ND	24.3
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	65	24	10 U	10 U	10 U
Acenaphthylene	UG/L	-	34	19	10 U	10 U	10 U
Anthracene	UG/L	-	8 J	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	37	14	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	70	4 J	10 U	10 U	8 J
Phenanthrene	UG/L	-	49	7 J	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Detection Limits shown are PQL

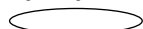
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-0121' OR [LOCID] = 'HIMW-0125' OR [LOCID] = 'HIMW-0131' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-0201' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-107	HISB-107	HISB-107	HISB-107	HISB-107
Sample ID			HISB-107/GW/50-54	HISB-107/GW/60-64	HISB-107/GW/70-74	HISB-107/GW/80-84	HISB-107/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0
Date Sampled			12/08/08	12/08/08	12/09/08	12/09/08	12/09/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	267	68	ND	ND	8
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	73.8	NA	24.3	NA	NA
Nitrate-Nitrogen	MG/L	-	0.11	NA	0.17	NA	NA
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	NA
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Detection Limits shown are PQL

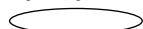
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Printed: 12/1/2009 2:40:46 PM
[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-108	HISB-108	HISB-108
Sample ID			HISB-108/GW/30-34	HISB-108/GW/40-44	HISB-108/GW/50-54	HISB-108/GW/60-64	HISB-108/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/09/08	12/09/08	12/09/08	12/09/08	12/10/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1.4
Toluene	UG/L	-	1 U	1 U	1 U	1 U	3.7
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	7.0
Total BTEX	UG/L	100	ND	ND	ND	ND	12.1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

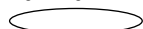
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/28/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/24/2008#)

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-108	HISB-108	HISB-108
Sample ID			HISB-108/GW/30-34	HISB-108/GW/40-44	HISB-108/GW/50-54	HISB-108/GW/60-64	HISB-108/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/09/08	12/09/08	12/09/08	12/09/08	12/10/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	ND	1
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	11.8	NA	24.4
Nitrate-Nitrogen	MG/L	-	NA	NA	3.28	NA	2.82
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

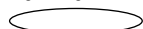
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-109	HISB-109	HISB-109
Sample ID			HISB-108/GW/80-84	HISB-108/GW/90-94	HISB-109/GW/30-34	HISB-109/GW/40-44	HISB-109/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/10/08	12/10/08	12/10/08	12/10/08	12/10/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 UR	1 UR	1 UR	1 U
Ethylbenzene	UG/L	-	2.5	2.7 J	1 UR	1 UR	1.0
Toluene	UG/L	-	7.5	10 J	1 UR	1 UR	3.9
Xylene (total)	UG/L	-	10	13 J	1 UR	1 UR	2.6
Total BTEX	UG/L	100	20	25.7	ND	ND	7.5
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Naphthalene	UG/L	-	1 J	1 J	10 UJ	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

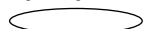
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-109	HISB-109	HISB-109
Sample ID			HISB-108/GW/80-84	HISB-108/GW/90-94	HISB-109/GW/30-34	HISB-109/GW/40-44	HISB-109/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/10/08	12/10/08	12/10/08	12/10/08	12/10/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 UR	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1	1	ND	ND	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	28.1
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	2.46
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Detection Limits shown are PQL

Advanced Selection: PDI GWs - Tbl 3-4
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB*' OR [LOCID] = 'HIMW-012f' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013f' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020f' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/28/2008# AND [LOGDATE] <> #10/24/2008# AND [LOGDATE] <

TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-109	HISB-109	HISB-109	HISB-109	HISB-114
Sample ID			HISB-109/GW/60-64	HISB-109/GW/70-74	HISB-109/GW/80-84	HISB-109/GW/90-94	HISB-114/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	90.0-94.0
Date Sampled			12/10/08	12/11/08	12/11/08	12/11/08	12/22/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 UR	1 U
Ethylbenzene	UG/L	-	2.2	3.0	3.6	1 UR	1 U
Toluene	UG/L	-	7.9	12	11	1 UR	1 U
Xylene (total)	UG/L	-	9.3	13	16	1 UR	1 U
Total BTEX	UG/L	100	19.4	28	30.6	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 UJ	10 UJ	2 J	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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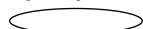
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-109	HISB-109	HISB-109	HISB-109	HISB-114
Sample ID			HISB-109/GW/60-64	HISB-109/GW/70-74	HISB-109/GW/80-84	HISB-109/GW/90-94	HISB-114/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	90.0-94.0
Date Sampled			12/10/08	12/11/08	12/11/08	12/11/08	12/22/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	2	ND	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	31	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	2.21	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	0.1 U	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Advanced Selection: PDI GWs - Tbl 3-4
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-114	HISB-114	HISB-114
Sample ID			HISB-114/GW/30-34	HISB-114/GW/40-44	DUP-1 12232008	HISB-114/GW/50-54	HISB-114/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	50.0-54.0	60.0-64.0
Date Sampled			12/23/08	12/23/08	12/23/08	12/23/08	12/23/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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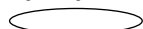
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-114	HISB-114	HISB-114
Sample ID			HISB-114/GW/30-34	HISB-114/GW/40-44	DUP-1 12232008	HISB-114/GW/50-54	HISB-114/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	50.0-54.0	60.0-64.0
Date Sampled			12/23/08	12/23/08	12/23/08	12/23/08	12/23/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	ND	ND
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	75.0	70.0	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	3.11	3.66	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

Advanced Selection: PDI GWs - Tbl 3-4
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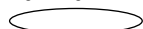
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-115	HISB-115	HISB-115
Sample ID			HISB-114/GW/70-74	HISB-114/GW/80-84	HISB-115/GW/50-54	HISB-115/GW/60-64	HISB-115/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/23/08	12/23/08	01/14/09	01/14/09	01/14/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	3 J	4 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	265	133	1,153
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	34.1	NA	138	NA	112
Nitrate-Nitrogen	MG/L	-	0.70	NA	0.46	NA	0.28
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

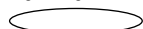
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-115	HISB-115	HISB-115	HISB-115	HISB-116
Sample ID			HISB-115/GW/80-84	HISB-115/GW/90-94	HISB-115/GW/30-34	HISB-115/GW/40-44	HISB-116/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	30.0-34.0
Date Sampled			01/14/09	01/14/09	01/15/09	01/15/09	06/23/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	20 J	23 J	10 UR	6 J	1 U
Ethylbenzene	UG/L	-	89 J	14 J	10 UR	1 J	1 U
Toluene	UG/L	-	1 J	3 J	10 UR	10 UR	1 U
Xylene (total)	UG/L	-	13 J	16 J	10 UR	2 J	1 U
Total BTEX	UG/L	100	123	56	ND	9	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	4 J	10 U	10 U	10 U
Acenaphthene	UG/L	-	10	6 J	10 U	10 U	10 U
Acenaphthylene	UG/L	-	62	22	10 U	1 J	10 U
Anthracene	UG/L	-	1 J	3 J	4 J	1 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	2 J	10 U	10 U
Fluorene	UG/L	-	15	5 J	1 J	2 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2 J	14	10 U	2 J	1 J
Phenanthrene	UG/L	-	9 J	10 J	5 J	6 J	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value.

D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

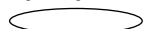
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-115	HISB-115	HISB-115	HISB-115	HISB-116
Sample ID			HISB-115/GW/80-84	HISB-115/GW/90-94	HISB-115/GW/30-34	HISB-115/GW/40-44	HISB-116/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	30.0-34.0
Date Sampled			01/14/09	01/14/09	01/15/09	01/15/09	06/23/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	2 J	3 J	2 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	99	67	15	14	1
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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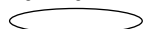
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/40-44	HISB-116/50-54	20090623-FD-1	HISB-116/60-64	HISB-116/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	60.0-64.0	70.0-74.0
Date Sampled			06/23/09	06/23/09	06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	21	20	2
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1	82	77	4
Total BTEX	UG/L	100	ND	1	103	97	6
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	2 J	2 J	10 U
Acenaphthene	UG/L	-	10 U	10 U	10	10	4 J
Acenaphthylene	UG/L	-	1 J	4 J	110 D	110 D	25
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10	10	2 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2 J	2 J	91 D	79	12
Phenanthrene	UG/L	-	10 U	10 U	1 J	2 J	5 J

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

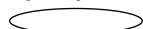
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/40-44	HISB-116/50-54	20090623-FD-1	HISB-116/60-64	HISB-116/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	60.0-64.0	70.0-74.0
Date Sampled			06/23/09	06/23/09	06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	3	6	224	213	48
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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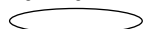
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/80-84	HISB-116/90-94	HISB-116/100-104
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			
Volatile Organic Compounds					
Benzene	UG/L	-	7	10	29
Ethylbenzene	UG/L	-	28	2	5
Toluene	UG/L	-	1 U	6	47
Xylene (total)	UG/L	-	56	82	210
Total BTEX	UG/L	100	91	100	291
Semivolatile Organic Compounds					
2-Methylnaphthalene	UG/L	-	26	5 J	13
Acenaphthene	UG/L	-	15	7 J	2 J
Acenaphthylene	UG/L	-	120 D	31	41
Anthracene	UG/L	-	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U
Fluorene	UG/L	-	19	4 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U
Naphthalene	UG/L	-	180 D	540 D	780 D
Phenanthrene	UG/L	-	9 J	10 U	10 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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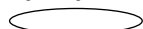
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TABLE 3-6
GROUNDWATER ANALYTICAL RESULTS
PRE-DESIGN INVESTIGATION REPORT
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/80-84	HISB-116/90-94	HISB-116/100-104
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
Pyrene	UG/L	-	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	369	587	836
Miscellaneous Parameters					
Alkalinity, Total (as CaCO3)	MG/L	-	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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D - Result reported from a secondary dilution analysis. R - The data is rejected.

NA - The sample was not analyzed for this parameter.

Detection Limits shown are PQL

Advanced Selection: PDI GWs - Tbl 3-4
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**Table 3-7
Groundwater Geochemical Data
Pre-Design Investigation Report
Hempstead Former MGP Site**

Parameter	Depth	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Sulfate ⁽³⁾	Phosphate (ortho)	Dissolved Oxygen		Oxidation-Reduction Potential	pH	Notes
Unit	(ft bgs)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ppm)	(ppm)	(mV)	(SU)	
Method		HACH 8146 ⁽¹⁾	EPA 310.1	EPA 352.1	EPA 354.1	EPA 375.4	EPA 365	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	
HIMW-10S (12/11/01) (4/9/07) (8/6/07)	28-38	---	---	---	---	---	---	---	---	---	---	See Note 4 See Note 5 See Note 5
		---	28.0	3.04	0.09	59.4	---	---	---	---	---	
		---	1.7	5.51	0.22	96.5	---	---	---	---	---	
HIMW-10I (12/11/01) (4/6/07) (8/2/07)	80.5-90.5	---	---	---	---	---	---	---	---	---	---	See Note 4 See Note 5 See Note 5
		---	3.0	2.42	ND	28.7	---	---	---	---	---	
		---	ND	2.40	ND	30.2	---	---	---	---	---	
HIMW-10D (4/5/07) (8/3/07)	112.5-132.5	---	9.0	1.98	ND	15.2	---	---	---	---	---	See Note 5 See Note 5
		---	4.8	2.14	ND	22.0	---	---	---	---	---	
DGP-209 (11/11/08 - 11/14/08)	34-38	19.0	---	---	---	---	---	2.83	---	-132	8.14	See Note 6
	40-44	>29.7	---	---	---	---	---	3.70	---	-92	8.25	
	50-54	23.0	---	---	---	---	---	2.19	---	17	7.13	
	70-74	11.9	---	---	---	---	---	2.10	---	30	6.84	
HISB-100 (11/19/08 - 11/21/08)	30-34	8.4	112	3.92	ND	---	ND	0.00	---	-77	7.35	See Note 6
	40-44	>29.7	---	---	---	---	---	0.00	---	-77	7.05	
	50-54	>29.7	17	0.11	ND	---	ND	0.00	---	-35	6.83	
	60-64	---	---	---	---	---	---	0.00	---	-99	7.23	
	70-74	---	---	---	---	---	---	0.00	0.48	74	5.56	
	80-84	---	---	---	---	---	---	0.00	---	-16	5.73	
HISB-101 (11/20/08 - 11/20/08)	30-34	1.9	24.2	0.22	ND	---	ND	2.22	0.20	-88	8.12	See Note 6
	40-44	>29.7	---	---	---	---	---	2.14	0.21	-75	7.34	
	50-54	>29.7	143	0.29	ND	---	ND	2.19	0.24	-24	7.30	
	60-64	---	---	---	---	---	---	---	---	-74	7.45	
	70-74	---	---	---	---	---	---	0.50	2.21	52	5.95	
	80-84	---	---	---	---	---	---	2.90	2.04	44	6.26	
HISB-102 (12/1/08 - 12/2/08)	30-34	>29.7	97.5	0.12	ND	---	ND	0.00	---	-15	6.08	See Note 6
	40-44	---	---	---	---	---	---	0.00	---	-75	6.43	
	50-54	8.9	49.8	0.54	ND	---	ND	0.00	0.72	2	6.25	
	60-64	---	---	---	---	---	---	2.65	---	18	6.30	
	70-74	---	---	---	---	---	---	3.33	0.75	62	5.90	
	80-84	---	---	---	---	---	---	0.00	---	-127	6.80	
HISB-102-2 (1/7/09 - 1/8/09)	30-34	---	---	---	---	---	---	0.00	---	-173	5.97	See Note 7
	40-44	---	---	---	---	---	---	0.00	---	-192	5.74	
	50-54	---	---	---	---	---	---	0.00	---	-118	5.81	
	60-64	---	---	---	---	---	---	0.00	---	-116	6.08	
	70-74	---	---	---	---	---	---	0.00	---	-60	6.15	
	80-84	---	---	---	---	---	---	0.00	---	-76	6.75	

**Table 3-7
Groundwater Geochemical Data
Pre-Design Investigation Report
Hempstead Former MGP Site**

Parameter	Depth	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Sulfate ⁽³⁾	Phosphate (ortho)	Dissolved Oxygen		Oxidation-Reduction Potential	pH	Notes
Unit	(ft bgs)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ppm)	(ppm)	(mV)	(SU)	
Method		HACH 8146 ⁽¹⁾	EPA 310.1	EPA 352.1	EPA 354.1	EPA 375.4	EPA 365	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	
HISB-103 (12/1/08 - 12/2/08)	30-34	14.8	34.6	23.6	0.66		ND	0.00	---	-52	5.46	See Note 6
	40-44	---	---	---	---		---	0.00	---	-11	5.64	
	50-54	>29.7	58.2	0.19	ND		ND	0.00	---	-33	5.77	
	60-64	---	---	---	---		---	5.38	3.50	110	5.28	
	70-74	---	---	---	---		---	4.46	---	129	5.36	
	80-84	---	---	---	---		---	0.00	---	-89	5.98	
HISB-104 (9/24/08 - 9/25/08)	30-34	>3.3	63.7	4.84	ND		ND	7.08	---	14.5	6.31	See Note 6
	45-49	>3.3	---	---	---		---	6.30	---	-114.2	6.81	
	55-59	>3.3	15.9	3.66	ND		ND	5.71	---	-96.2	7.06	
HISB-105 (12/4/08 - 12/5/08)	30-34	---	---	---	---		---	0.00	0.75	-30	6.27	See Note 6
	40-44	---	---	---	---		---	0.00	0.36	-28	6.45	
	50-54	23.6	61.0	0.10	ND		ND	0.00	0.36	-54	6.46	
	60-64	---	---	---	---		---	0.00	0.43	-52	6.30	
	70-74	27.9	90.2	0.13	ND		ND	0.00	0.48	-56	6.65	
	80-84	---	---	---	---		---	0.00	0.42	-32	6.06	
	90-94	---	---	---	---		---	0.00	---	-70	6.25	
HISB-105-2 (12/18/08)	30-34	---	---	---	---		---	0.00	---	-163	6.29	See Note 7
	40-44	---	---	---	---		---	0.00	---	-146	6.38	
	50-54	---	---	---	---		---	0.00	---	-198	6.01	
	60-64	---	---	---	---		---	0.00	---	-135	5.88	
	70-74	---	---	---	---		---	0.00	---	-138	6.14	
	80-84	---	---	---	---		---	0.00	---	-141	6.43	
	90-94	---	---	---	---		---	0.00	---	-188	6.37	
	100-104	---	---	---	---		---	0.00	---	-59	5.79	
HISB-106 (12/4/08)	30-34	---	---	---	---		---	0.00	0.52	52	5.48	See Note 6
	40-44	---	---	---	---		---	0.51	0.48	-87	5.74	
	50-54	>29.7	50.6	ND	ND		ND	0.00	---	36	5.38	
	60-64	---	---	---	---		---	0.00	0.52	3	5.63	
	70-74	>29.7	23.6	0.13	ND		ND	0.00	0.37	-101	5.72	
	80-84	---	---	---	---		---	0.00	0.43	-134	5.95	
	90-94	---	---	---	---		---	0.00	---	-252	6.53	
HISB-107 (12/8/08 - 12/9/08)	30-34	---	---	---	---		---	0.00	0.82	57	5.75	See Note 6
	40-44	---	---	---	---		---	0.00	---	-24	6.04	
	50-54	>29.7	76.2/73.8	0.11/0.11	ND/ND		ND/ND	0.00	0.83	-30	6.26	
	60-64	---	---	---	---		---	0.00	---	-12	6.13	
	70-74	26.0	24.3	0.17	ND		ND	0.62	0.50	-1	5.48	
	80-84	---	---	---	---		---	0.00	---	71	5.39	
	90-94	---	---	---	---		---	0.00	---	-170	6.14	
HISB-108 (12/9/08 -)	30-34	---	---	---	---		---	7.73	3.37	32	6.10	See Note 6
	40-44	---	---	---	---		---	0.00	0.63	37	5.62	
	50-54	9.5	11.8	3.28	ND		ND	0.00	0.50	49	5.26	

**Table 3-7
Groundwater Geochemical Data
Pre-Design Investigation Report
Hempstead Former MGP Site**

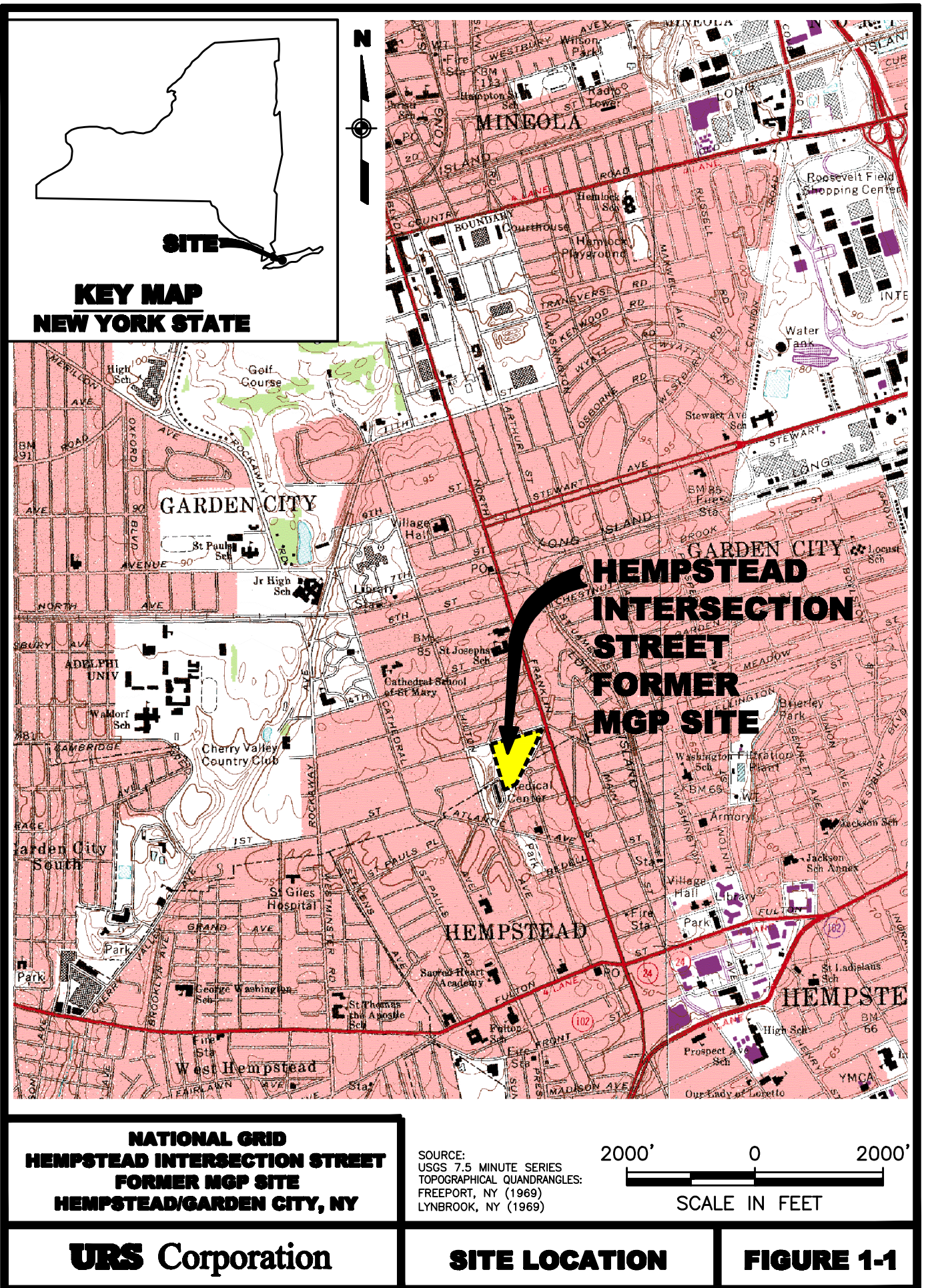
Parameter	Depth	Ferrous Iron	Alkalinity ⁽²⁾	Nitrate-N	Nitrite-N	Sulfate ⁽³⁾	Phosphate (ortho)	Dissolved Oxygen		Oxidation-Reduction Potential	pH	Notes
Unit	(ft bgs)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ppm)	(ppm)	(mV)	(SU)	
Method		HACH 8146 ⁽¹⁾	EPA 310.1	EPA 352.1	EPA 354.1	EPA 375.4	EPA 365	(flow-thru cell)	(down hole)	(flow-thru cell)	(flow-thru cell)	
HISB-108 12/10/08)	60-64	---	---	---	---		---	0.00	0.51	54	5.33	See Note 6
	70-74	10.3	24.4	2.82	ND		ND	0.00	0.52	91	5.08	
	80-84	---	---	---	---		---	0.00	0.33	2	5.79	
	90-94	---	---	---	---		---	0.00	---	-121	5.76	
HISB-109 (12/10/08 - 12/11/08)	30-34	---	---	---	---		---	4.62	4.76	149	6.63	See Note 6
	40-44	---	---	---	---		---	1.41	---	-29	10.35	
	50-54	19.7	28.1	2.46	ND		ND	4.33	1.42	-90	8.68	
	60-64	---	---	---	---		---	0.00	---	-32	7.64	
	70-74	>29.7	31	2.21	ND		ND	0.00	0.78	40	4.70	
	80-84	---	---	---	---		---	0.00	0.39	-6	5.06	
	90-94	---	---	---	---		---	0.00	---	-8	5.35	
HISB-114 (12/22/08 - 12/23/08)	30-34	---	---	---	---		---	0.00	---	-134	6.42	See Note 6
	40-44	---	---	---	---		---	0.00	---	-136	6.47	
	50-54	18.9	75.0/70.0	3.11/3.66	ND/ND		ND/ND	0.00	---	-180	6.23	
	60-64	---	---	---	---		---	0.00	---	-129	6.37	
	70-74	>29.7	34.1	0.70	ND		ND	0.00	---	-135	6.42	
	80-84	---	---	---	---		---	0.00	---	-96	6.54	
	90-94	---	---	---	---		---	0.00	---	-130	6.67	
HISB-115 (1/14/09 - 1/5/09)	30-34	---	---	---	---		---	0.00	---	-76	5.73	See Note 6
	40-44	---	---	---	---		---	0.00	---	-119	5.83	
	50-54	>29.7	138	0.46	ND		ND	0.00	---	-101	6.23	
	60-64	---	---	---	---		---	0.00	---	-133	5.85	
	70-74	>29.7	112	0.28	ND		ND	0.00	---	-135	6.08	
	80-84	---	---	---	---		---	0.00	---	-152	5.67	
	90-94	---	---	---	---		---	0.00	---	-130	5.69	

Notes:

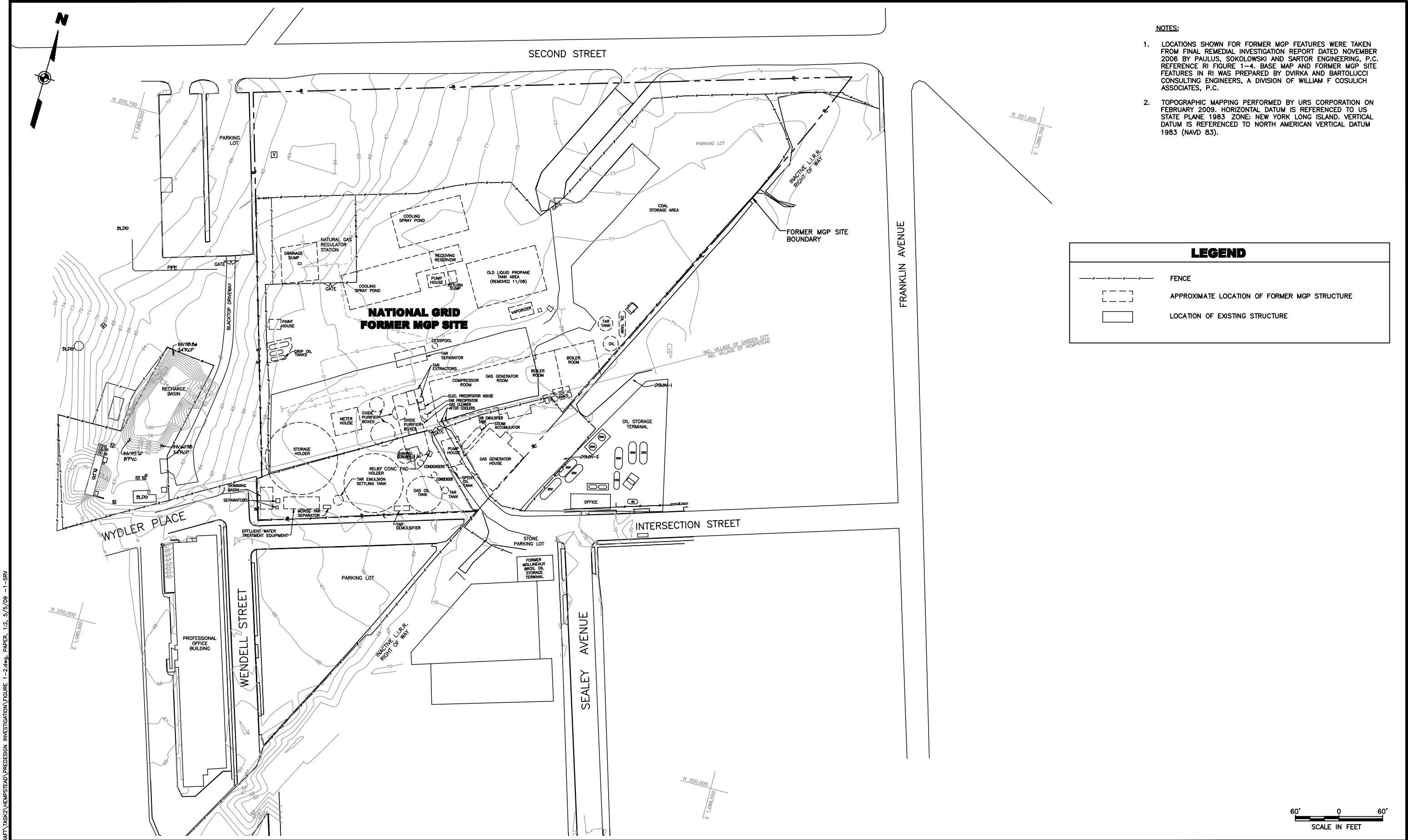
- 1 Field Analysis - Hach Kit
- 2 as CaCO₃
- 3 as SO₄
- 4 Data from Remedial Investigation Report (PS&S, November 2006)
- 5 Data from Groundwater Sampling and NAPL Monitoring/Recovery Report for the Second and Third Quarters of 2007 (URS, November 2007)
- 6 Samples collected with Geoprobe SP22 sampler & tubing check valve assembly, top-bottom sampling sequence used
- 7 Samples collected with Geoprobe SP22 sampler & tubing check valve assembly, bottom-top sampling sequence used

---	Not measured or not reported
ND	Not Detected
ft bgs	feet below ground surface
ug/L	micrograms per liter
mg/L	milligrams per liter
ppm	parts per million
mV	millivolts
SU	standard units
mS/cm	millisiemens per centimeter

FIGURES



J:\11175065.00000\CAD\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 1-2.dwg, PAPER, 1:2, 5/5/09 -1-SRV



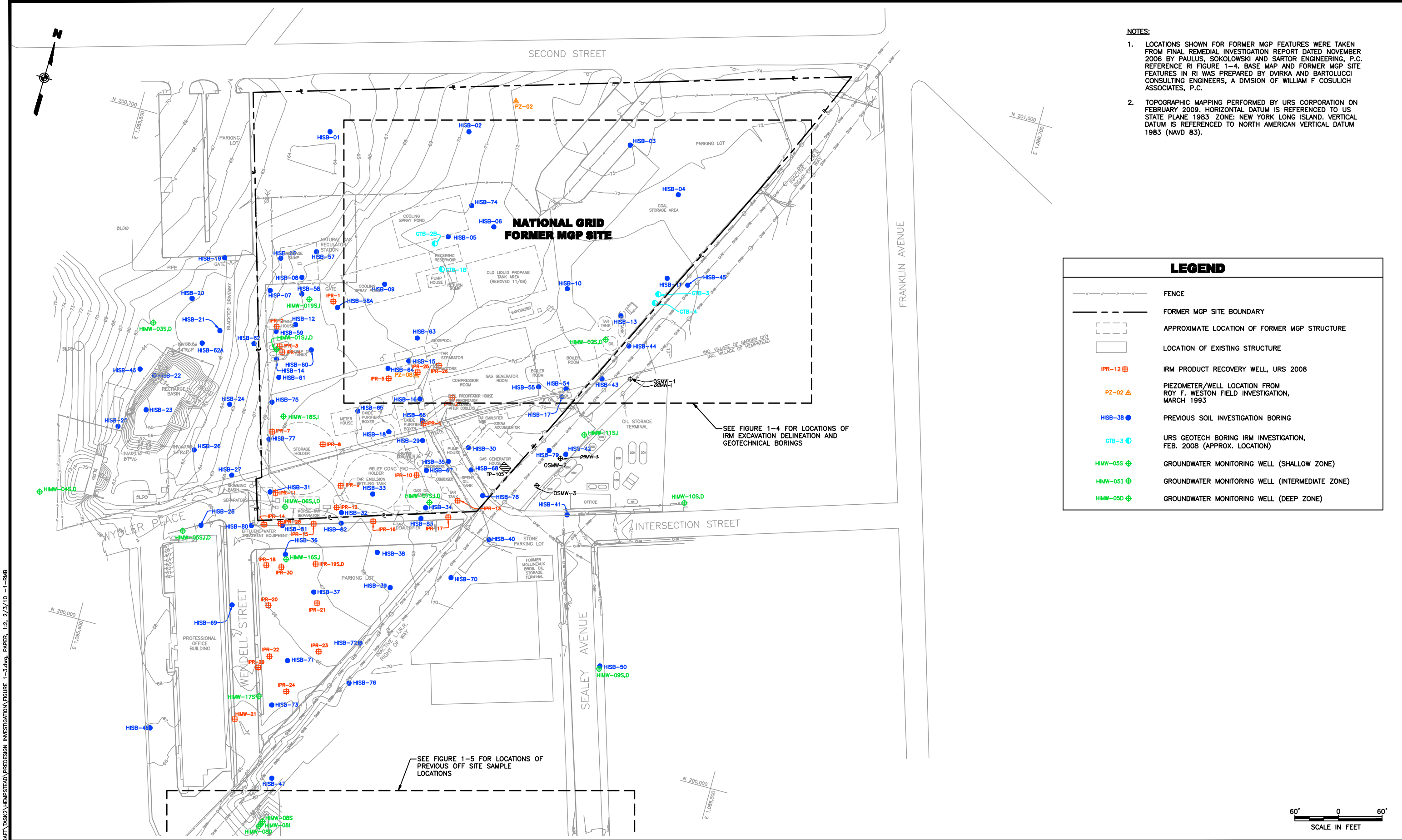
URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
FORMER MGP STRUCTURES
AND SITE FEATURES**

FIGURE 1-2

J:\11175065.00000\CAD\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 1-3.dwg, PAPER, 1:2, 2/3/10 -1-RMB

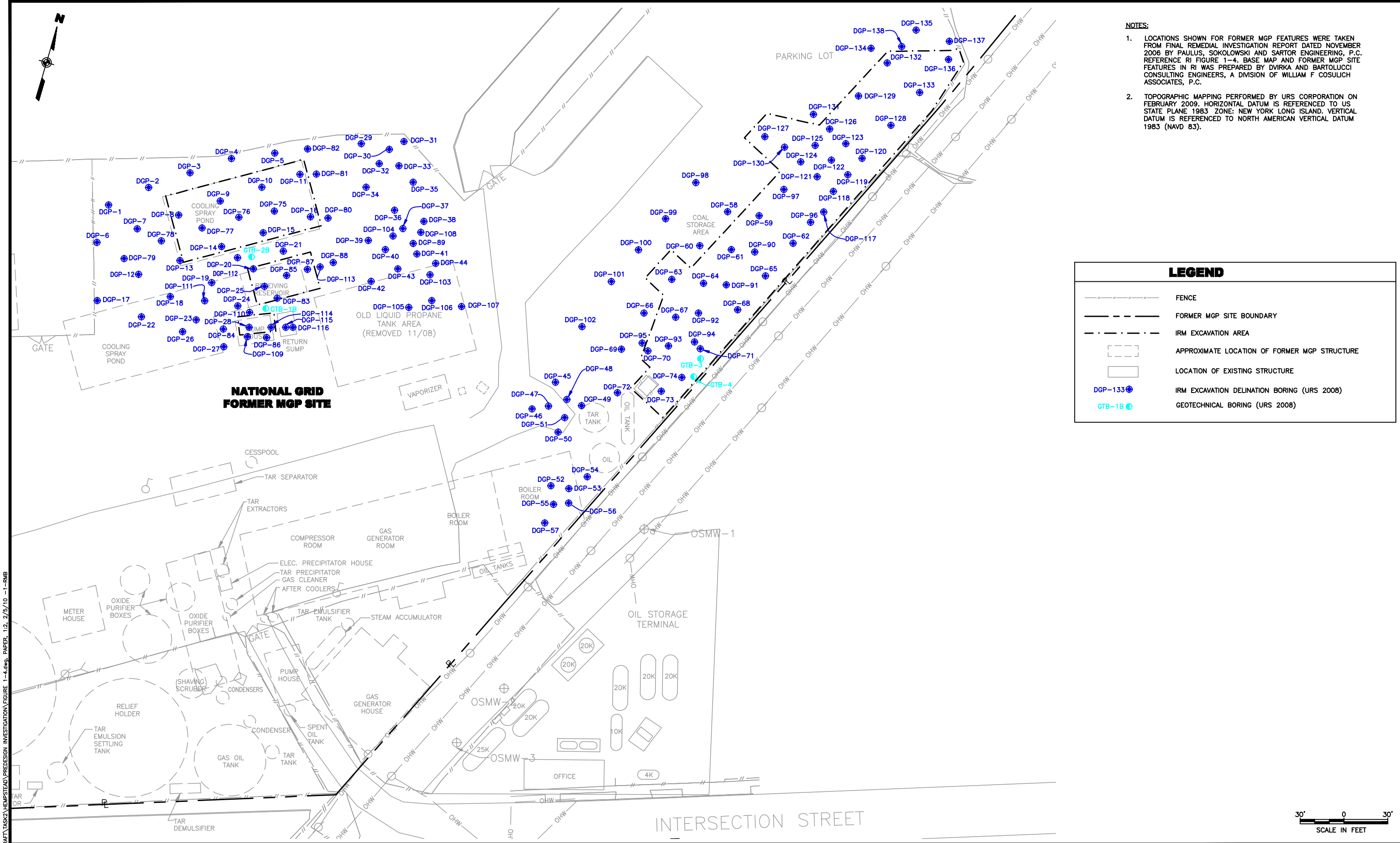


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FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
PREVIOUS SAMPLE LOCATIONS**

FIGURE 1-3



URS Corporation

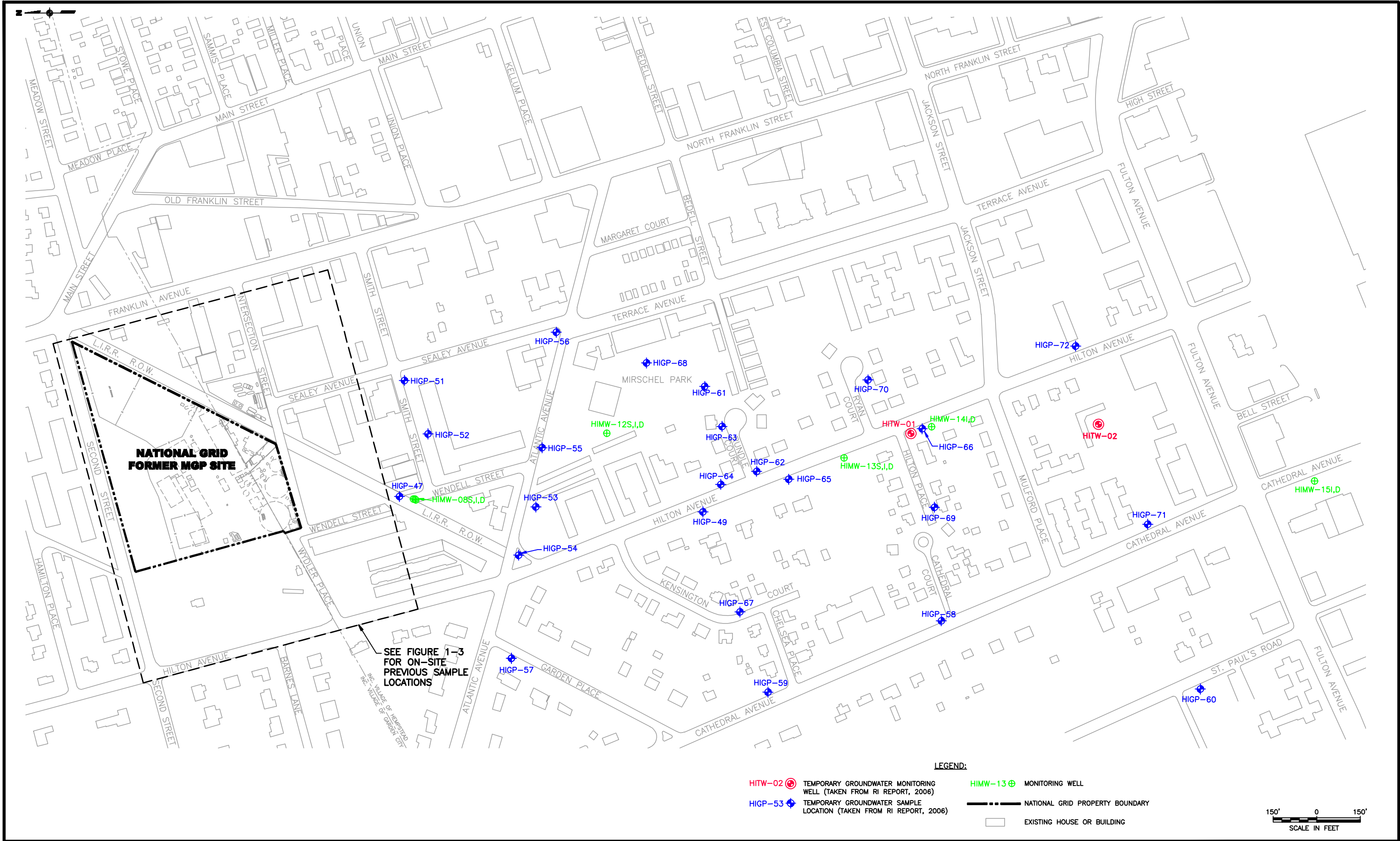
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
IRM EXCAVATION DELINEATION AND
GEOTECHNICAL BORING LOCATIONS

FIGURE 1-4

J:\11175065.00000\CAO\DRAWING\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 1-4.dwg, PAPER, 1:2, 2/5/10 -1-RMB

J:\1175065.00000\CAD\DRAW\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 1-5.dwg 4/7/09 - 1-RMB



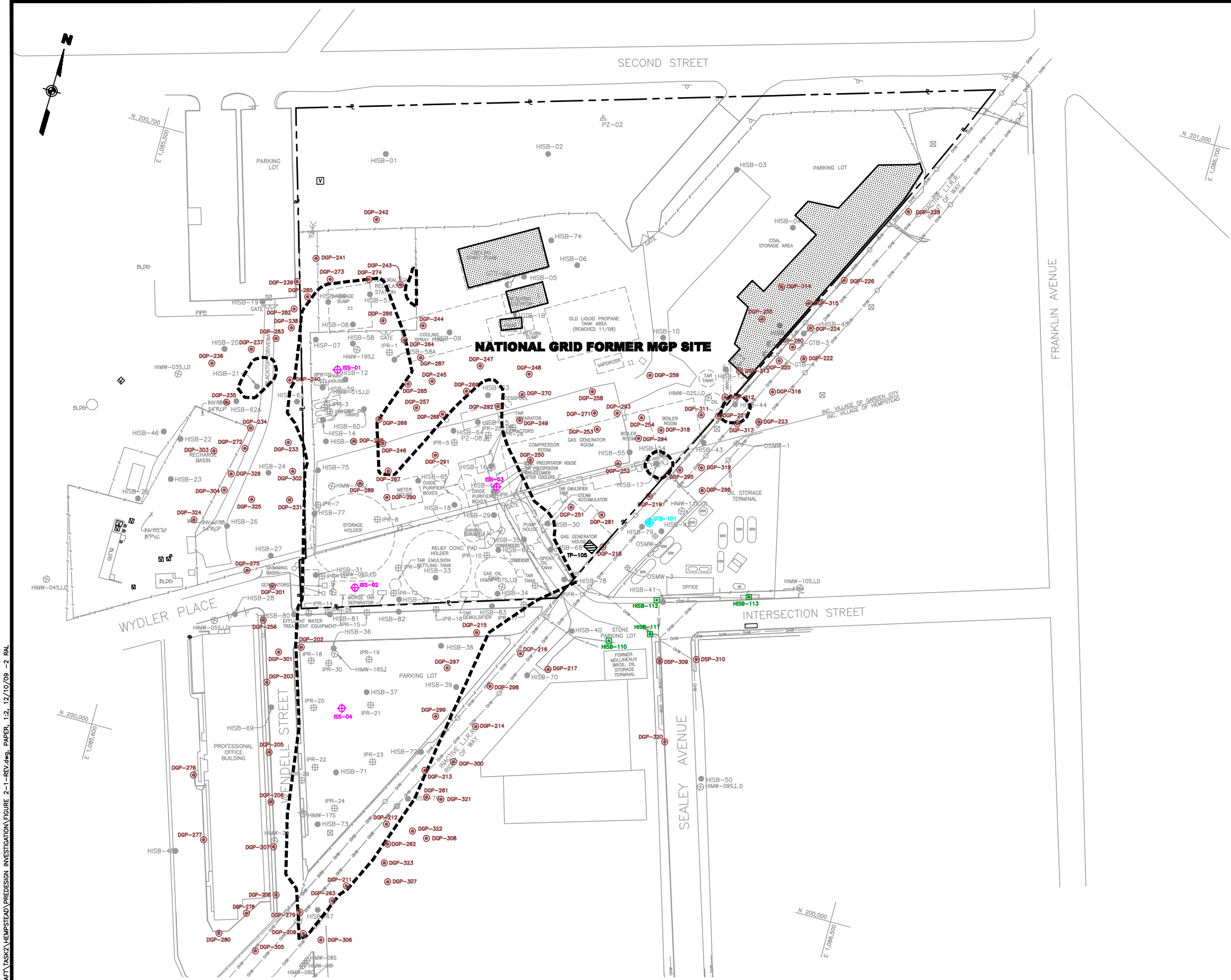
URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
PREVIOUS SAMPLE LOCATIONS
(OFF SITE)**

FIGURE 1-5

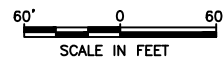
J:\11175065.00000\CAD\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 2-1-REV.dwg, PAPER, 1:2, 12/10/09 -2 RAL



- NOTES:
1. LOCATIONS SHOWN FOR FORMER MGP FEATURES WERE TAKEN FROM FINAL REMEDIAL INVESTIGATION REPORT DATED NOVEMBER 2006 BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, P.C. REFERENCE RI FIGURE 1-4. BASE MAP AND FORMER MGP SITE FEATURES IN RI WAS PREPARED BY DVIRKA AND BARTOLUCCI CONSULTING ENGINEERS, A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.
 2. TOPOGRAPHIC MAPPING PERFORMED BY URS CORPORATION ON FEBRUARY 2009. HORIZONTAL DATUM IS REFERENCED TO US STATE PLANE 1983 ZONE: NEW YORK LONG ISLAND. VERTICAL DATUM IS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1983 (NAVD 83).

LEGEND

— x — x — x —	FENCE
-----	FS/RAP PREVIOUSLY ESTIMATED LIMITS OF SOURCE MATERIAL
- - - - -	FORMER MGP SITE BOUNDARY
[]	APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
[]	LOCATION OF EXISTING STRUCTURE
[]	IRM EXCAVATION AREA (COMPLETED DECEMBER 2008)
IPR-12	IRM PRODUCT RECOVERY WELL, URS 2008, 2009
PZ-02	PIEZOMETER/WELL LOCATION FROM ROY F. WESTON FIELD INVESTIGATION, MARCH 1993
HISB-101	SOURCE MATERIAL DELINEATION BORING -PRIOR INVESTIGATIONS
HIMW-05S	GROUNDWATER MONITORING WELL (SHALLOW ZONE)
HIMW-05I	GROUNDWATER MONITORING WELL (INTERMEDIATE ZONE)
HIMW-05D	GROUNDWATER MONITORING WELL (DEEP ZONE)
DGP-201	PDI SOURCE MATERIAL DELINEATION BORING FOR ISS
GTB-101	GEOTECHNICAL BORING SITE-WIDE DELINEATION
HISB-113	PDI SOURCE MATERIAL DELINEATION/FORENSICS SAMPLING LOCATION
ISS-01	ISS TREATABILITY SAMPLE BORING
TP-101	TEST PIT EXCAVATION - MGP STRUCTURES DELINEATION

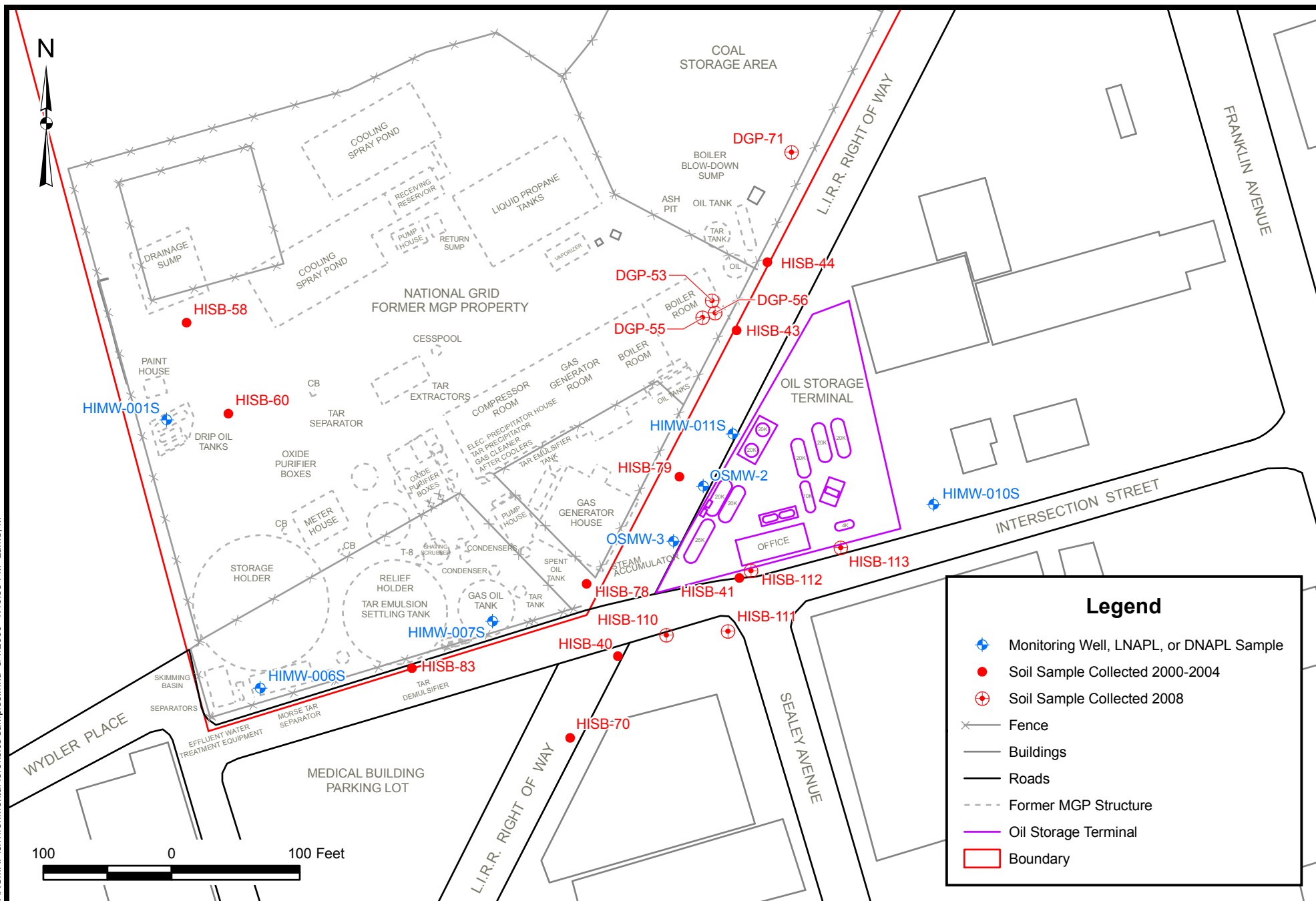


URS Corporation

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
BORING AND SAMPLING LOCATIONS
FOR ISS INVESTIGATION

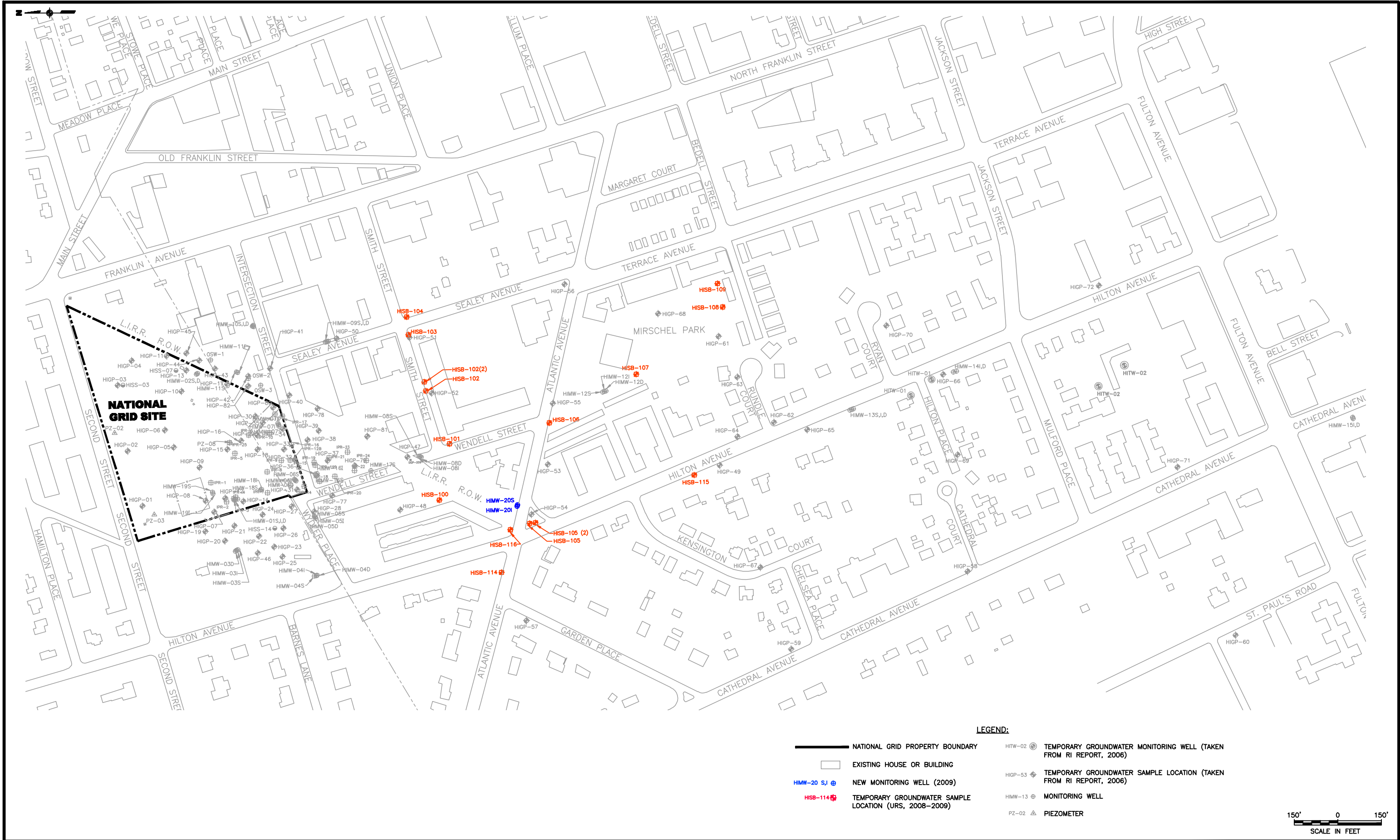
FIGURE 2-1



ENVIRONMENTAL FORENSICS SAMPLE LOCATIONS
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE

FIGURE 2-2

J:\1175085.00000\CAD\DRAWING\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 2-3.dwg 12/10/09 - 5 RAL



URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
OFF-SITE INVESTIGATION
LOCATIONS**

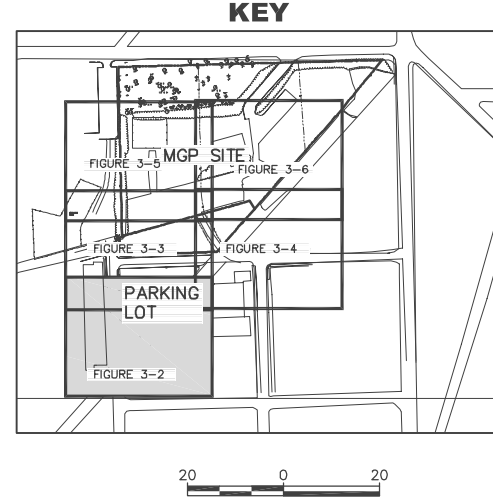
FIGURE 2-3



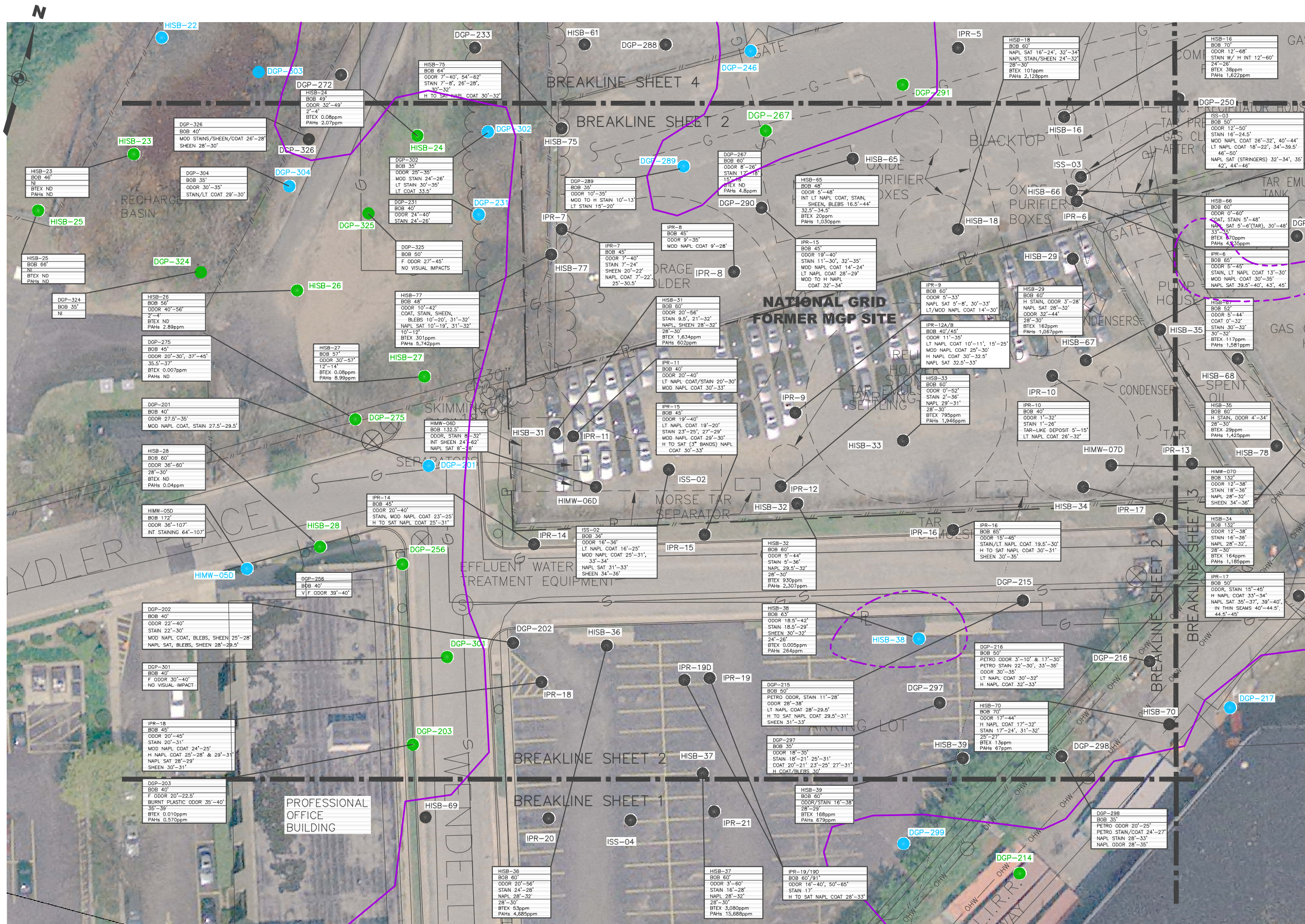
- NOTES:
- LOCATIONS SHOWN FOR FORMER MGP FEATURES WERE TAKEN FROM FINAL REMEDIAL INVESTIGATION REPORT DATED NOVEMBER 2006 BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, P.C. REFERENCE RI FIGURE 1-4. BASE MAP, EXISTING FEATURES AND TOPOGRAPHY IN RI WAS PREPARED BY DVIRKA AND BARTOLUCCI CONSULTING ENGINEERS, A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.
 - ALL EXISTING SITE UTILITIES ARE NOT NECESSARILY SHOWN.
 - SOME UTILITIES SHOWN MAY HAVE ALREADY BEEN DEMOLISHED AND/OR REMOVED.
 - MGP SOURCE MATERIAL INCLUDES NAPL-SATURATED SOIL (MGP RELATED) OR SOIL CONTAINING SIGNIFICANT VISIBLE MGP IMPACTS WITH TOTAL BTEX > 50 PPM AND/OR TOTAL PAHs > 1,000 PPM.
 - ANALYTICAL RESULTS SHOWN IN CHEM BOXES ARE THE HIGHEST RESULTS OF ALL THE SAMPLES COLLECTED AT THE BORING LOCATION.

LEGEND	
— x — x — x —	FENCE
— — — — —	FORMER MGP SITE BOUNDARY
— — — — —	LIMITS OF MGP SOURCE MATERIAL
— — — — —	APPROXIMATE LIMITS OF MGP SOURCE MATERIAL
— — — — —	APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
— — — — —	LOCATION OF EXISTING STRUCTURE
●	NO VISIBLE IMPACT OBSERVED
●	VISIBLE IMPACTS, NOT MGP SOURCE MATERIAL
●	MGP SOURCE MATERIAL
●	PREDOMINANTLY PETROLEUM RELATED IMPACTS (NON MGP)

ABBREVIATIONS			
BOB	BOTTOM OF BORING	ND	NOT DETECTED
COAT	COATING	NI	NO IMPACT
F	FAINT	MOD	MODERATE
H	HEAVY	PPM	PARTS PER MILLION
INT	INTERMITTENT	SAT	SATURATED
LT	LIGHT	SL	SLIGHT
MED	MEDIUM	V	VERY

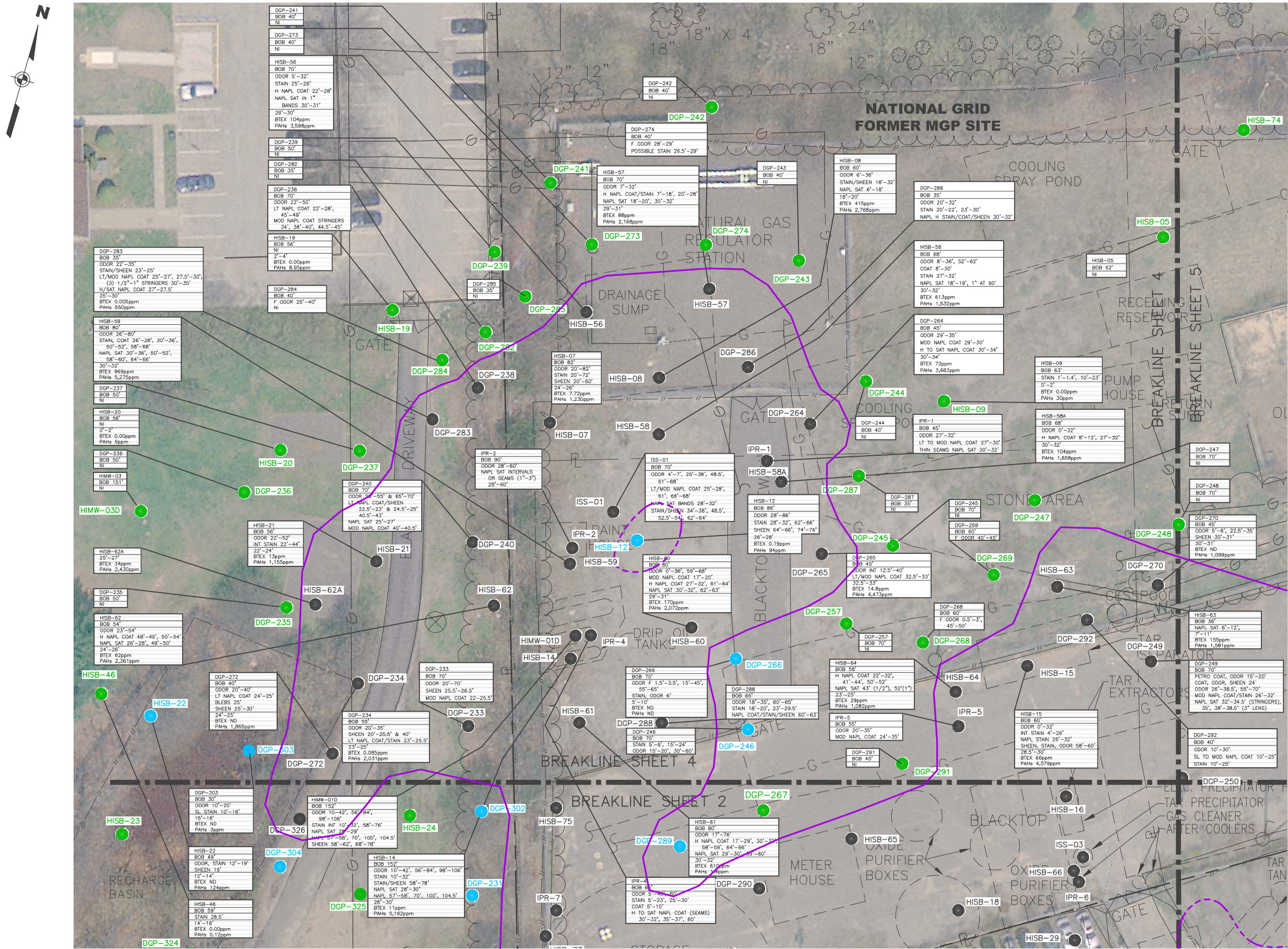


P:\acad-2008\keys\span-Hempstead-NY\dwg\PI January 2010.dwg, fig 3-3 20 SCALE 2 OF 5, 2/3/2010 11:15:36 AM



NOTES:

- LOCATIONS SHOWN FOR FORMER MGP FEATURES WERE TAKEN FROM FINAL REMEDIAL INVESTIGATION REPORT DATED NOVEMBER 2006 BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, P.C. REFERENCE RI FIGURE 1-4. BASE MAP, EXISTING FEATURES AND TOPOGRAPHY IN RI WAS PREPARED BY DVIRKA AND BARTOLUCCI CONSULTING ENGINEERS, A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.
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- MGP SOURCE MATERIAL INCLUDES NAPL-SATURATED SOIL (MGP RELATED) OR SOIL CONTAINING SIGNIFICANT VISIBLE MGP IMPACTS WITH TOTAL BTEX > 50 PPM AND/OR TOTAL PAHS > 1,000 PPM.
- ANALYTICAL RESULTS SHOWN IN CHEM BOXES ARE THE HIGHEST RESULTS OF ALL THE SAMPLES COLLECTED AT THE BORING LOCATION.



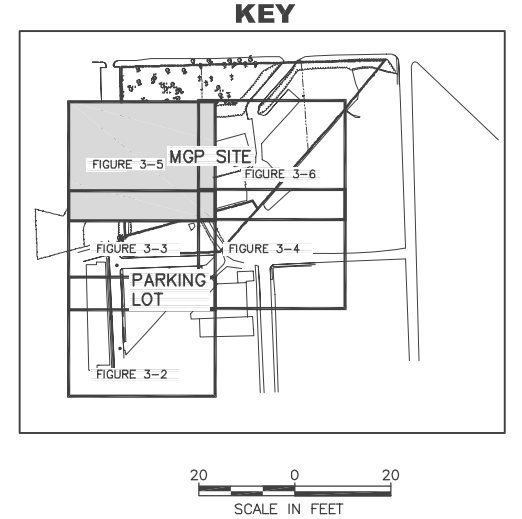
- NOTES:
- LOCATIONS SHOWN FOR FORMER MGP FEATURES WERE TAKEN FROM FINAL REMEDIAL INVESTIGATION REPORT DATED NOVEMBER 2006 BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, P.C. REFERENCE RI FIGURE 1-4, BASE MAP, EXISTING FEATURES AND TOPOGRAPHY IN RI WAS PREPARED BY DVIRKA AND BARTOLUCCI CONSULTING ENGINEERS, A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.
 - ALL EXISTING SITE UTILITIES ARE NOT NECESSARILY SHOWN.
 - SOME UTILITIES SHOWN MAY HAVE ALREADY BEEN DEMOLISHED AND/OR REMOVED.
 - MGP SOURCE MATERIAL INCLUDES NAPL-SATURATED SOIL (MGP RELATED) OR SOIL CONTAINING SIGNIFICANT VISIBLE MGP IMPACTS WITH TOTAL BTEX > 50 PPM AND/OR TOTAL PAHs > 1,000 PPM.
 - ANALYTICAL RESULTS SHOWN IN CHEM BOXES ARE THE HIGHEST RESULTS OF ALL THE SAMPLES COLLECTED AT THE BORING LOCATION.

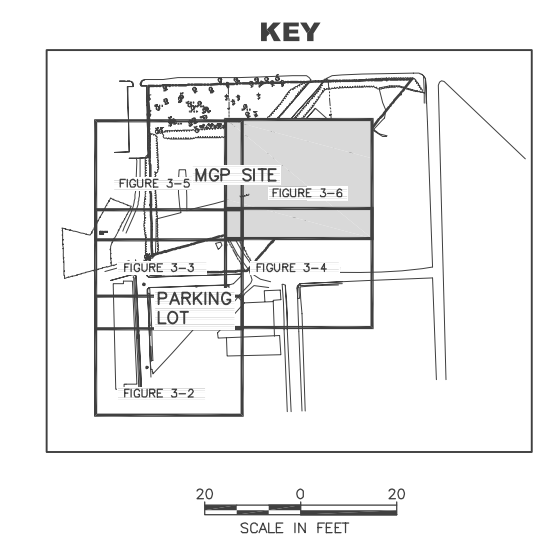
LEGEND

- x x x x FENCE
- FORMER MGP SITE BOUNDARY
- LIMITS OF MGP SOURCE MATERIAL
- APPROXIMATE LIMITS OF MGP SOURCE MATERIAL
- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE
- LOCATION OF EXISTING STRUCTURE
- NO VISIBLE IMPACT OBSERVED
- VISIBLE IMPACTS, NOT MGP SOURCE MATERIAL
- MGP SOURCE MATERIAL
- PREDOMINANTLY PETROLEUM RELATED IMPACTS (NON MGP)

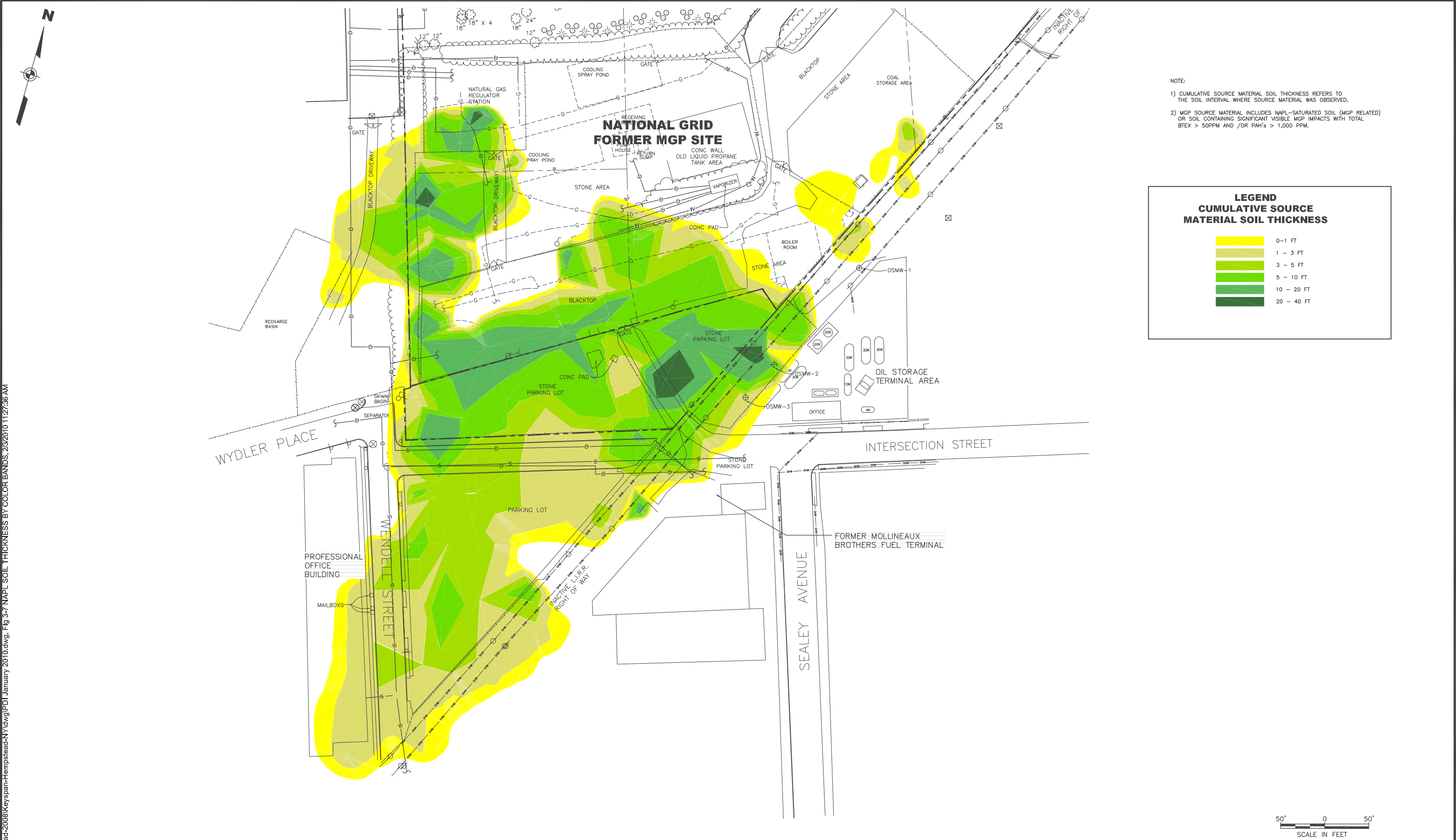
ABBREVIATIONS

BOB	BOTTOM OF BORING	ND	NOT DETECTED
COAT	COATING	NI	NO IMPACT
F	FAINT	MOD	MODERATE
H	HEAVY	PPM	PARTS PER MILLION
INT	INTERMITTENT	SAT	SATURATED
LT	LIGHT	SL	SLIGHT
MED	MEDIUM	V	VERY

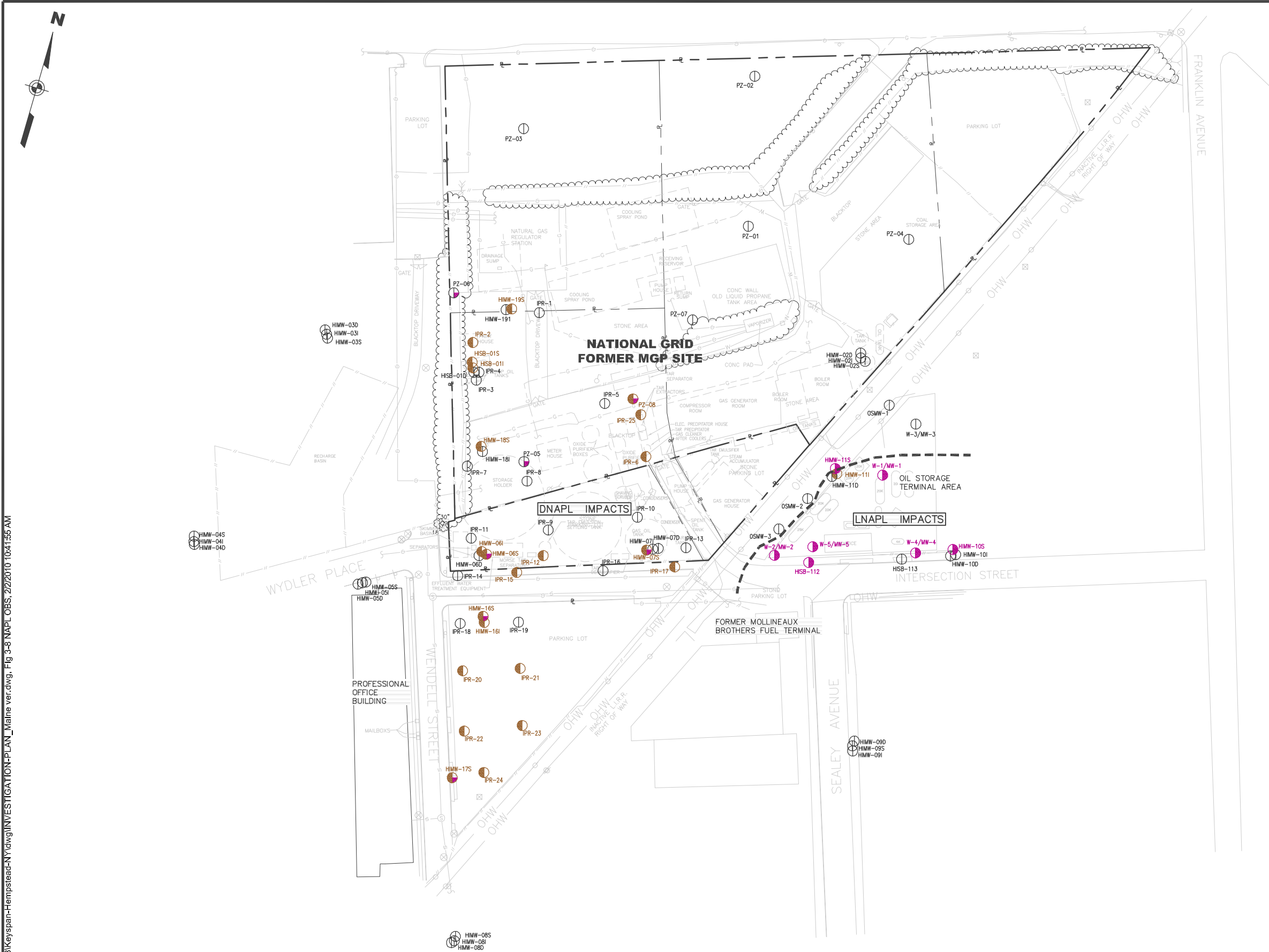




P:\acad-2008\keyspan-Hempstead-NY\dwg\PT January 2010.dwg, Fig 3-7 NAPL SOIL THICKNESS BY COLOR BANDS, 2/3/2010 11:27:36 AM



P:\acad-2008\Keyspan-Hempstead-NY\dwg\INVESTIGATION\PLAN_Maine ver.dwg, Fig 3-8 NAPL OBS, 2/22/2010 10:41:55 AM



- NOTES:
1. LOCATIONS SHOWN FOR FORMER MGP FEATURES WERE TAKEN FROM FINAL REMEDIAL INVESTIGATION REPORT DATED MARCH 2006 BY PAULUS, SOKOLOWSKI AND SARTOR ENGINEERING, P.C. REFERENCE RI FIGURE 1-4. BASE MAP, EXISTING FEATURES AND TOPOGRAPHY IN RI WAS PREPARED BY DVIRKA AND BARTOLUCCI CONSULTING ENGINEERS, A DIVISION OF WILLIAM F COSULICH ASSOCIATES, P.C.
 2. ALL EXISTING SITE UTILITIES ARE NOT NECESSARILY SHOWN.
 3. SOME UTILITIES SHOWN MAY HAVE ALREADY BEEN DEMOLISHED AND/OR REMOVED.

LEGEND

— x — x — x — FENCE

--- FORMER MGP SITE BOUNDARY

--- APPROXIMATE LOCATION OF FORMER MGP STRUCTURE

--- LOCATION OF EXISTING STRUCTURE

IPR-12 PRODUCT RECOVERY WELL

PZ-01(B) PIEZOMETER LOCATION

HMW-01S MONITORING WELL LOCATION

W-1/MW-1 OIL STORAGE TERMINAL AREA MONITORING WELLS BY TYREE BROTHERS ENVIRONMENTAL SERVICES, 1990

NAPL OBSERVATIONS

○ NO NAPL DETECTED IN MONITORING WELL

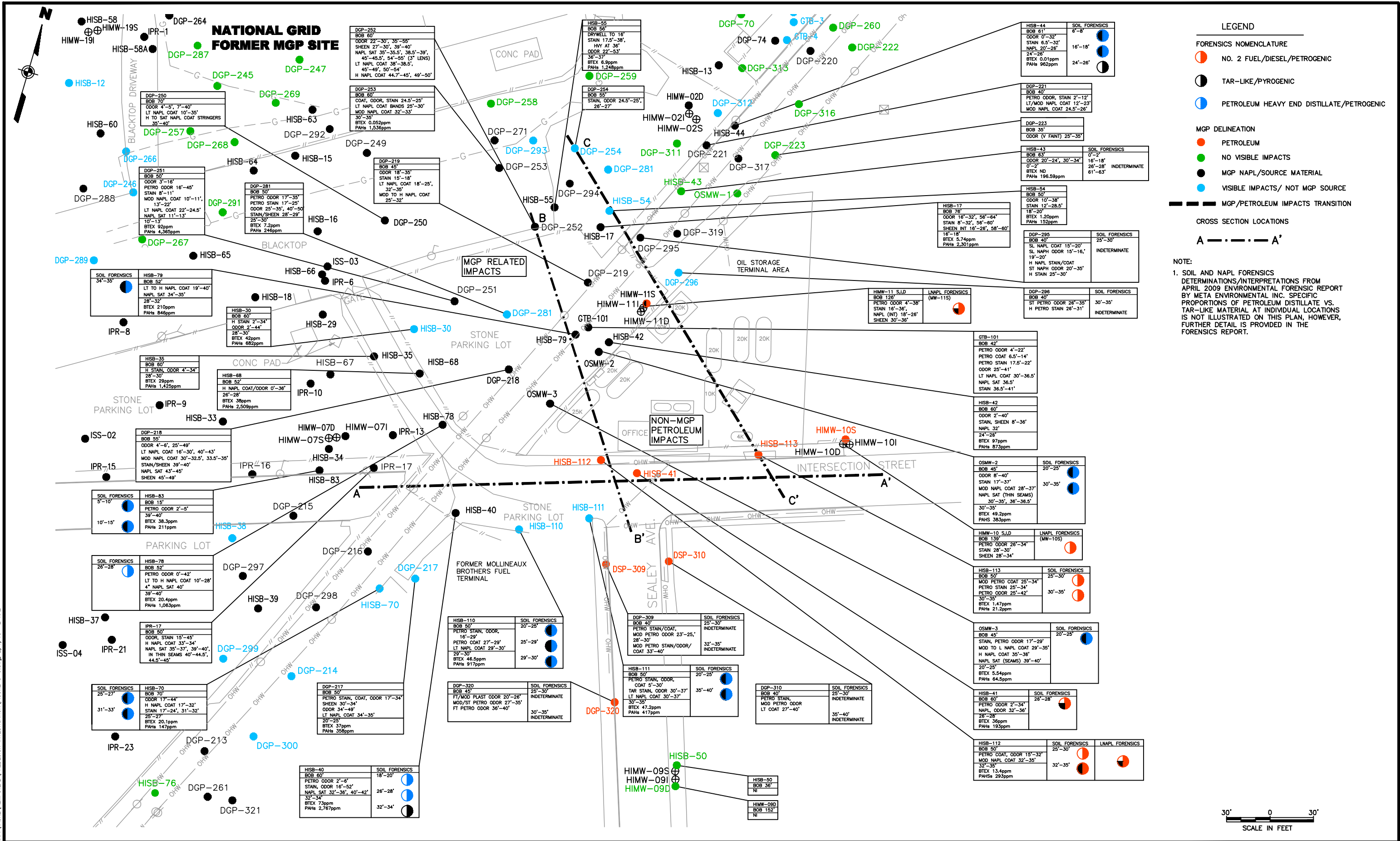
● DNAPL DETECTED IN MONITORING WELL

● LNAPL DETECTED IN MONITORING WELL

--- LNAPL/DNAPL TRANSITION

NOTE:

- 1) WHERE ONLY A 1/4 CIRCLE IS FILLED IN WITH A SPECIFIC COLOR, IT INDICATES THAT TYPE OF NAPL IS A MINOR COMPONENT OF THE TWO NAPL TYPES HISTORICALLY OBSERVED AT THAT LOCATION.
- 2) THIS PLAN ILLUSTRATES HISTORIC OBSERVATIONS OF NAPL IN MONITORING WELLS AND DOES NOT NECESSARY REFLECT CURRENT CONDITIONS.
- 3) LNAPL — LIGHT NON-AQUEOUS PHASE LIQUID
DNAPL — DENSE NON-AQUEOUS PHASE LIQUID



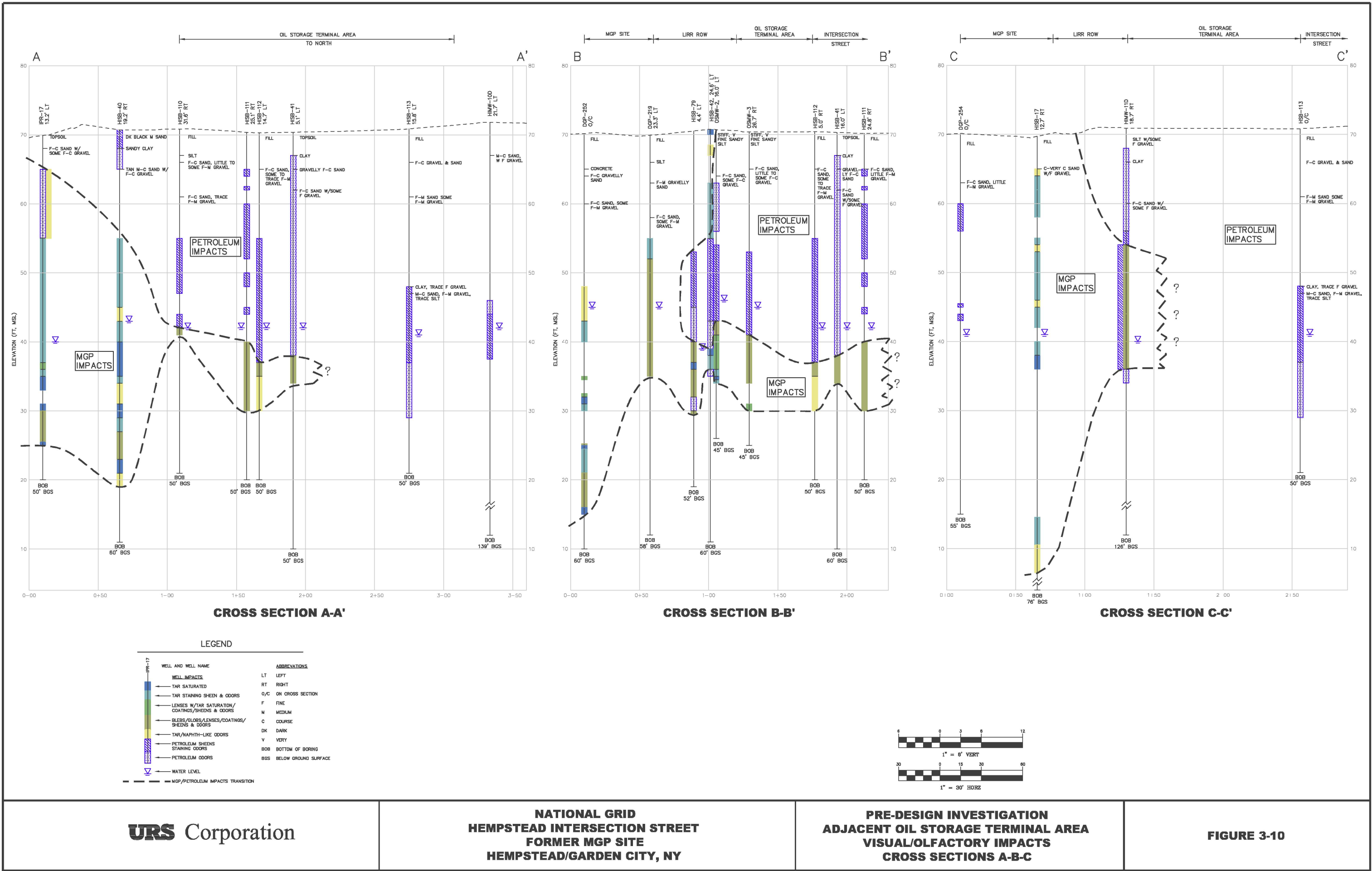
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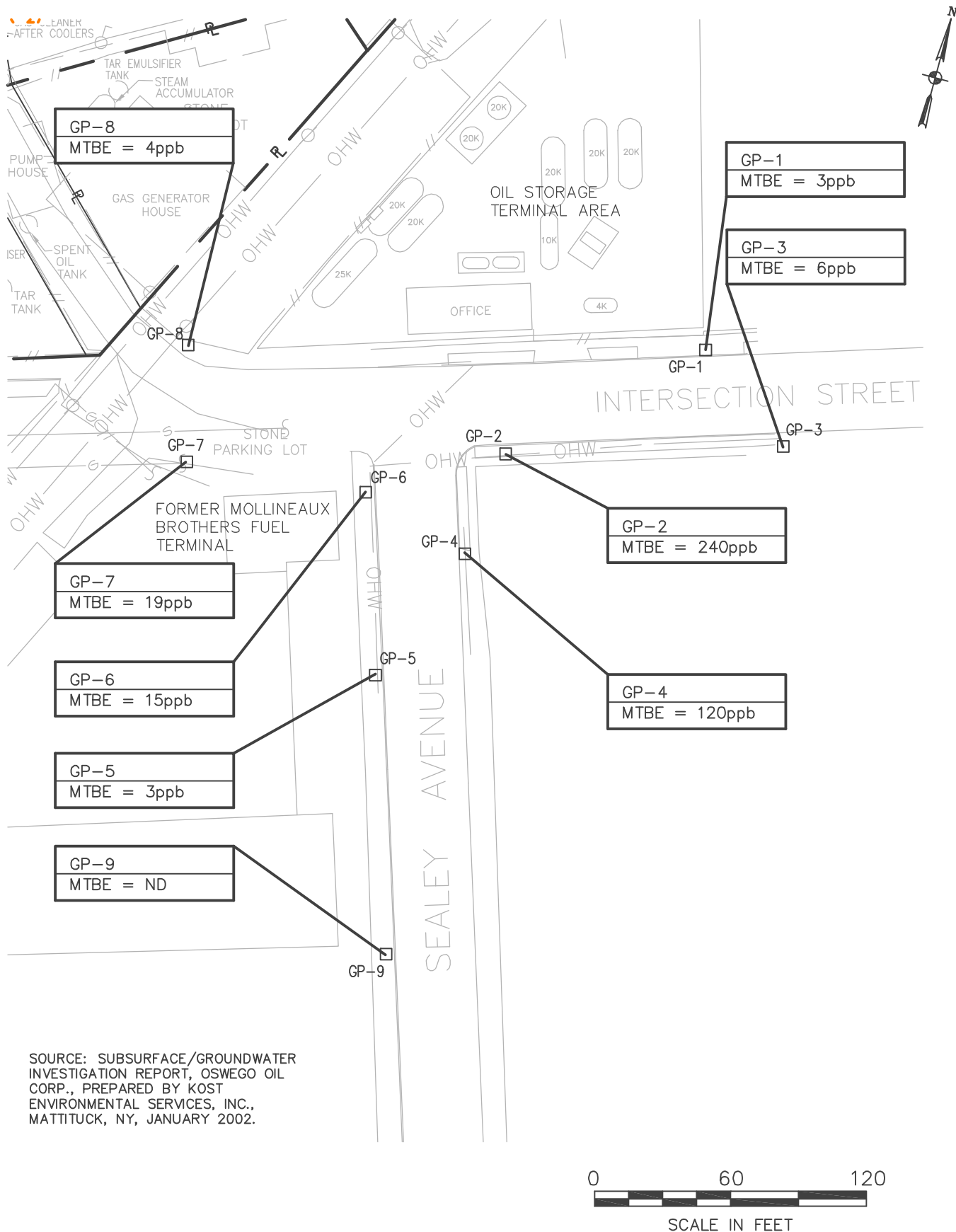
**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
ADJACENT OIL STORAGE
TERMINAL AREA
VISUAL & FORENSICS OBSERVATIONS**

FIGURE 3-9

P:\acad-2008\Keyspan-Hempstead-NY\dwg\INVESTIGATION -PLAN Maine ver.dwg, Fig 3-10 XSections ABC, 4/2/2009 4:04:18 PM





NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
2001 GROUNDWATER
MTBE RESULTS SUMMARY
ADJACENT OIL TERMINAL AREA

FIGURE

3-11

DGP-209 (11/11/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
34-38	1,709	1,066	
40-44	4,890	645	
50-54	3,859	1,297	
70-74	2	3	

HIGP-40 (8/7/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	4,166	9,815	
56-60	4	112	

HIGP-49 (10/16/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
36-40	ND	ND	
60-64	7	63	
90-94	ND	16	

HIGP-55 (9/7/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
23-27	31	244	
60-64	69	532	
80-84	2	ND	

HIGP-61 (11/8/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
28-30	ND	ND	
60-64	30	39	
90-94	2	2	

HIGP-66 (12/14/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
40-44	ND	ND	
56-60	8	60	
72-76	398	787	
90-94	12,970	259	

HIGP-71 (11/6/01)			
DEPTH	TOT. BTEX	TOT. PAHs	
46-50	ND	ND	
54-58	ND	ND	
62-66	1	7	
72-76	29	84	
81-85	126	95	

HIMW-09S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
28-38	ND-19	ND-16	
70-80	ND-2	ND	
113-123	ND-16	ND-10	

HIMW-15 I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
80-90	4-111	ND-273	
141.5-151.5	ND-94	ND-1	

HISB-102(2) (1/8/09)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	423	859	
40-44	464	274	
50-54	349	652	
60-64	68	453	
70-74	5	5	
80-84	ND	1	

HISB-106 (12/4/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	418	602	
40-44	1,162	383	
50-54	1,800	2,513	
60-64	815	572	
70-74	68	51	
80-84	38	30	
90-94	124	98	

HISB-114 (12/23/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	ND	ND	
50-54	ND	ND	
60-64	ND	ND	
70-74	ND	ND	
80-84	ND	ND	
90-94	ND	ND	

HIGP-01 (8/7/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
25-29	ND	ND	
56-60	1	1	

HIGP-41 (8/11/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	2,241	3,258	
58-62	1	17	

HIGP-50 (9/8/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	8	
60-64	ND	ND	

HIGP-56 (10/9/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
24-28	ND	2	
60-64	ND	ND	

HIGP-62 (11/8/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
37-41	8	4	
54-58	771	152	
84-89	45	89	

HIGP-67 (12/20/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
37-41	ND	ND	
54-58	ND	ND	
72-76	ND	27	
90-94	ND	ND	

HIGP-72 (11/6/01)			
DEPTH	TOT. BTEX	TOT. PAHs	
52-56	ND	ND	
62-66	ND	ND	
72-76	ND	ND	
82-86	ND	ND	
92-96	ND	ND	

HIMW-10S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
28-38	ND-33	1-150	
80.5-90.5	ND-13	ND	
112.5-132.5	ND-16	ND	

HIMW-20S,I (2/09)			
DEPTH	TOT. BTEX	TOT. PAHs	
25-35	ND	ND	
63-73	215.6-224	96-179	

HISB-103 (12/1/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	4	6	
50-54	84	171	
60-64	ND	ND	
70-74	ND	ND	
80-84	5	9	

HISB-107 (12/8/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	217	47	
50-54	551	258	
60-64	29	68	
70-74	ND	ND	
80-84	ND	ND	
90-94	24	8	

HISB-115 (1/14/09)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	15	
40-44	9	14	
50-54	288	265	
60-64	125	133	
70-74	1,411	1,153	
80-84	123	99	
90-94	56	67	

HIGP-02 (8/8/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
31-35	ND	ND	
56-60	ND	ND	

HIGP-44 (8/10/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	469	244	
57-61	3	47	

HIGP-51 (8/31/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
28-32	ND	ND	
58-60	ND	ND	

HIGP-57 (9/21/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
36-40	ND	ND	
64-68	ND	ND	

HIGP-63 (12/15/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
37-41	2	3	
54-58	18	22	
72-76	3,979	2,769	
90-94	773	63	

HIGP-68 (12/20/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
37-41	3	5	
54-58	163	300	
72-76	ND	ND	
90-94	ND	ND	

HIMW-03S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
23-33	ND-33	ND-6	
80.5-90.5	ND-13	ND	
133-143	ND-8.2	ND-30	

HIMW-12S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
22-32	ND-11	ND-4	
63-73	29.2-256	65-527	
117-127	ND-6	ND-2	

HISB-100 (11/19/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	12,000	1,576	
50-54	441	332	
60-64	1,470	599	
70-74	747	1,809	
80-84	22	21	

HISB-104 (9/24/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
45-49	ND	ND	
55-59	ND	ND	

HISB-108 (12/9/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	ND	ND	
50-54	ND	ND	
60-64	ND	ND	
70-74	12	1	
80-84	20	1	
90-94	26	2	

HISB-116 (6/23/09)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	ND	ND	
50-54	1.3	ND	
60-64	100	192	
70-74	6	37	
80-84	91	330	
90-94	100	451	
100-104	292	604	

HIGP-03 (7/28/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
33-37	ND	ND	
56-60	ND	ND	

HIGP-45 (10/17/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
32-38	1,229	1,254	
60-64	ND	ND	

HIGP-52 (9/11/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	1,031	2,629	
58-60	ND	ND	

HIGP-58 (10/18/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
36-40	ND	ND	
60-64	ND	ND	
90-94	ND	ND	

HIGP-64 (12/18/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
37-41	27	17	
54-58	4,031	1,574	
72-76	401	239	
90-94	14	48	

HIGP-69 (9/24/01)			
DEPTH	TOT. BTEX	TOT. PAHs	
54-58	ND	ND	
70-74	28	28	
82-86	126	76	
90-94	12	19	
104-108	5	ND	

HIMW-04S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
30-40	ND-33	ND-6	
80-90	ND-13	ND	
167-177	ND-4	ND-1	

HIMW-13S,I,D			
DEPTH	TOT. BTEX	TOT. PAHs	
38-48	ND-143	ND	
70-80	ND-164	58-156	
110-120	ND-30	ND-21	

HISB-101 (11/19/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	122	190	
40-44	14,100	4,366	
50-54	4,040	3,244	
60-64	1,995	2,074	
70-74	4	4	
80-84	1	2	

HISB-105 (12/4/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	ND	518	
50-54	469	ND	
60-64	1,043	3,058	
70-74	60	59	
80-84	279	578	
90-94	48	39	

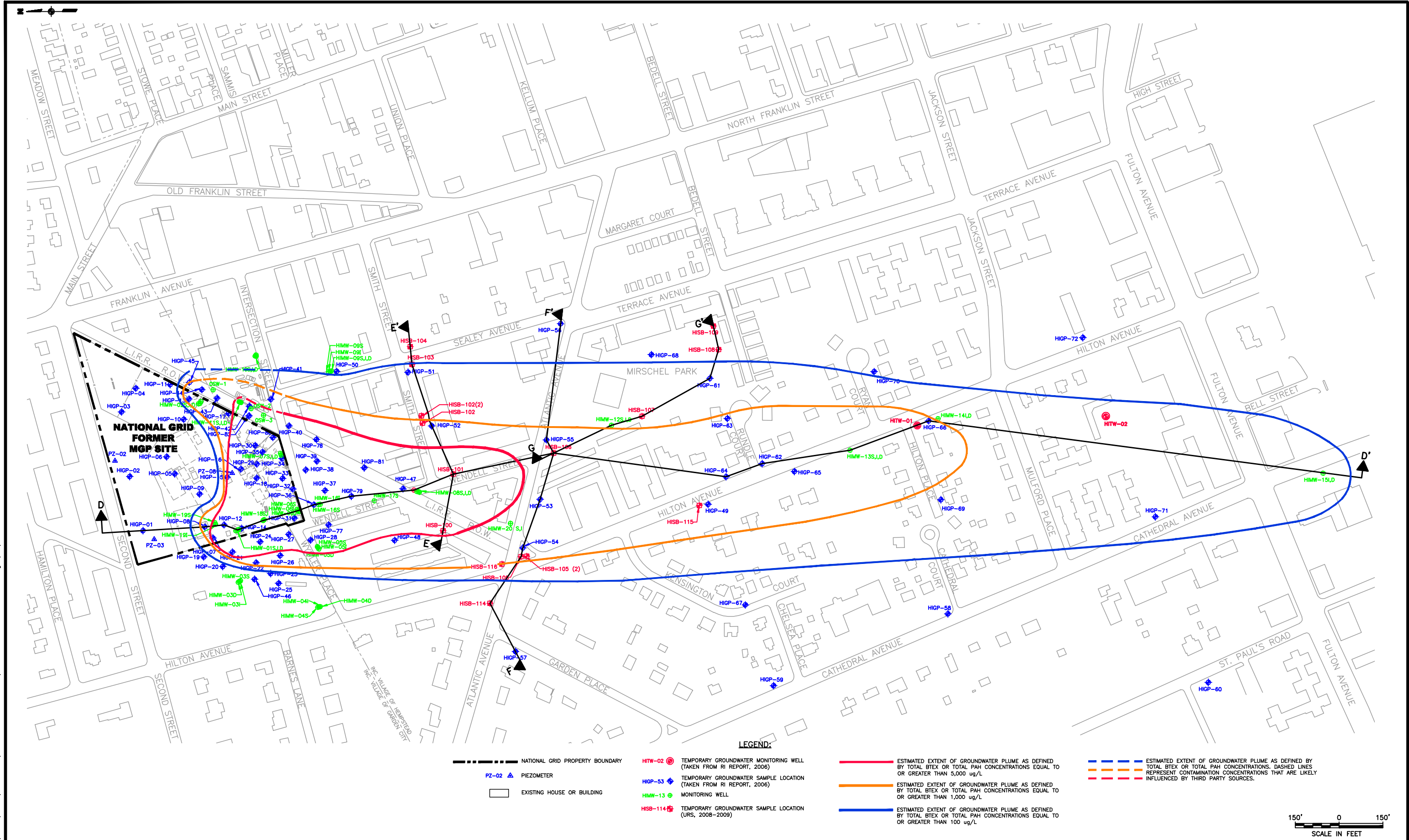
HISB-109 (12/10/08)			
DEPTH	TOT. BTEX	TOT. PAHs	
30-34	ND	ND	
40-44	ND	ND	
50-54	8	ND	
60-64	19	ND	
70-74	28	ND	
80-84	31	2	
90-94	ND	ND	

HITW-01 (9/21/01)			
DEPTH	TOT. BTEX	TOT. PAHs	
40-44	2	ND	
54-58	3	6	
70-74	95	278	
82-86	293	274	
90-94	45	44	
109-113	210	1	

HIGP-04 (7/24/00)			
DEPTH	TOT. BTEX	TOT. PAHs	
33-35	ND	ND	
56-60	ND	2	

HIGP-47 (8/22/00)		
DEPTH	TOT. BTEX	TOT. PAHs
31-35	6,670	18,715
60-64	500	369

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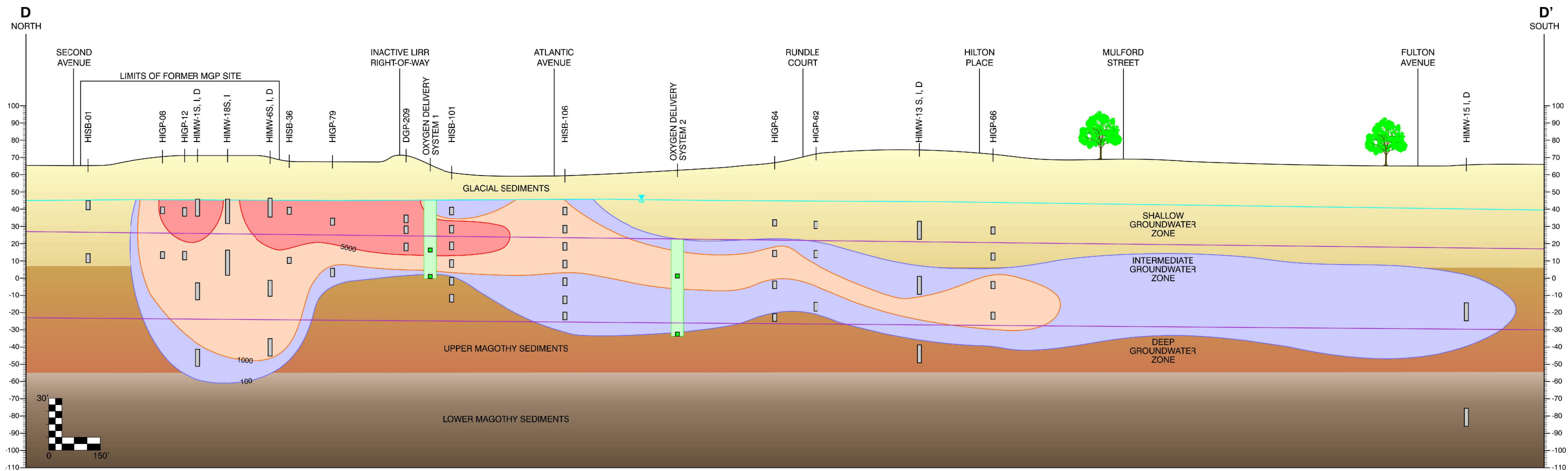


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NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
CROSS SECTIONS
LOCATION PLAN

FIGURE 3-13



SECTION D-D'

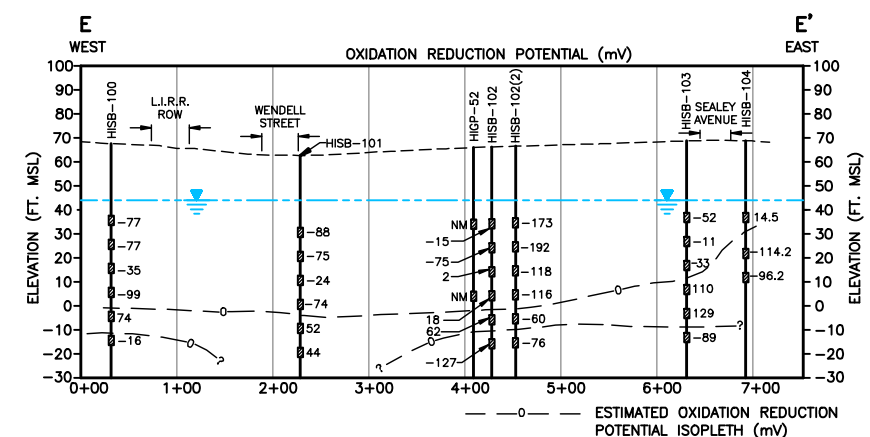
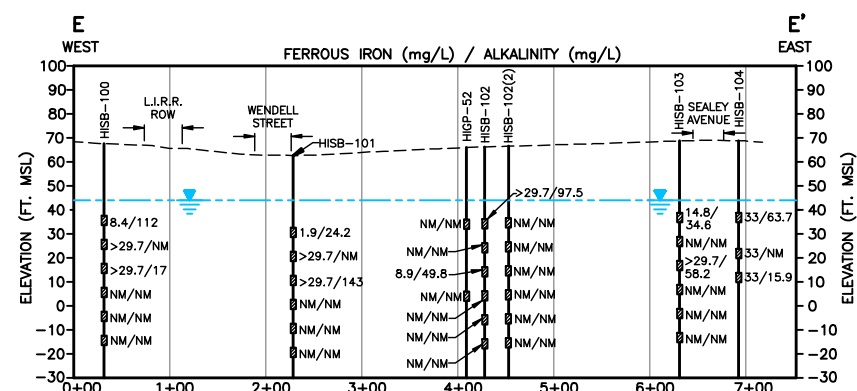
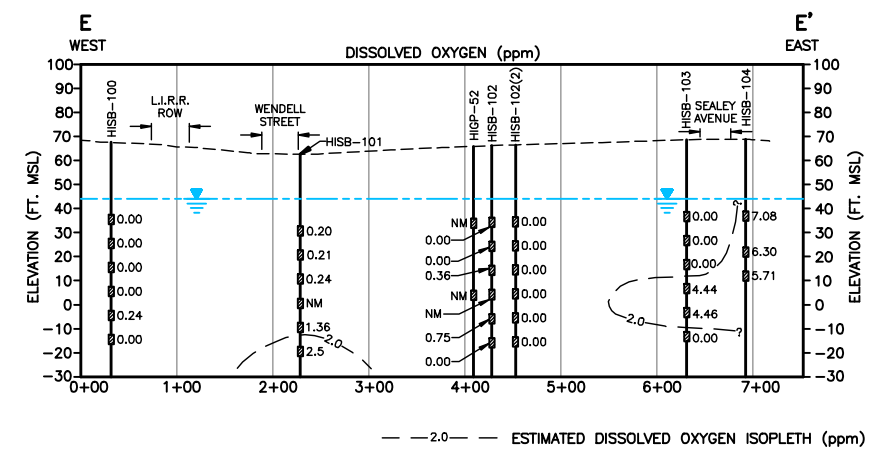
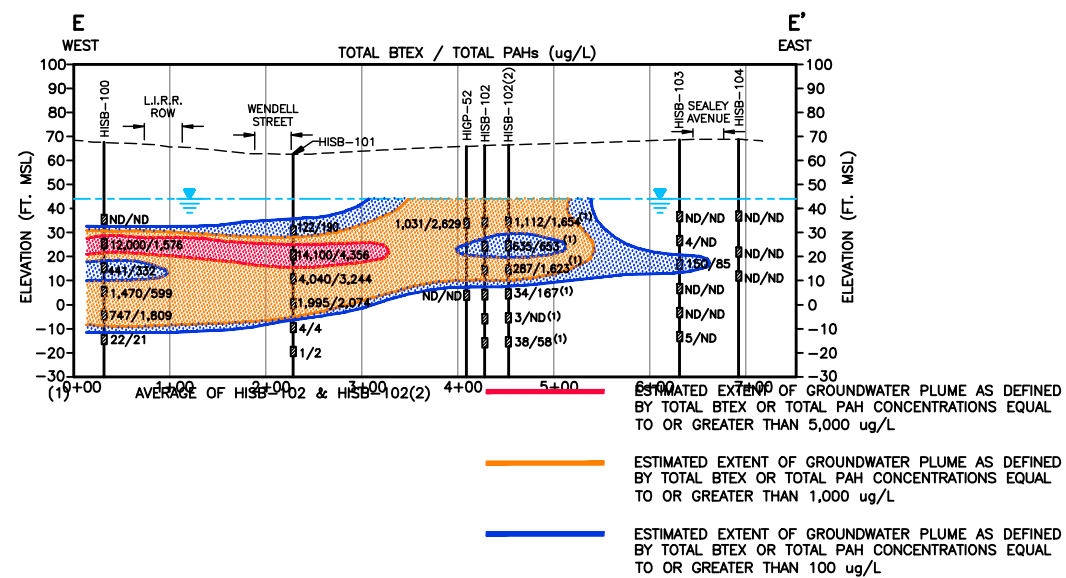
- LEGEND:**
- GROUNDWATER SURFACE (APPROXIMATE DEPTH)
 - >5000 µg/L TOTAL BTEX AND PAHs
 - >1000 µg/L TOTAL BTEX AND PAHs
 - >100 µg/L TOTAL BTEX AND PAHs
 - WELL SCREEN INTERVAL
 - OXYGEN DELIVERY WELL SCREEN
 - CONCEPTUAL REPRESENTATION OF TREATMENT ZONE

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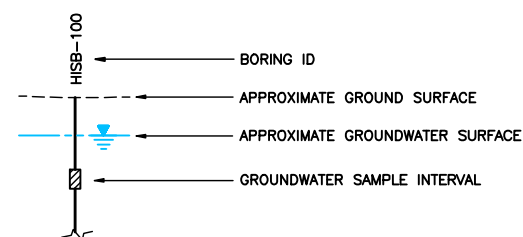
NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
DISSOLVED PHASE
GROUNDWATER PLUME
CROSS-SECTION D-D'

FIGURE 3-14

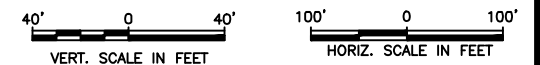


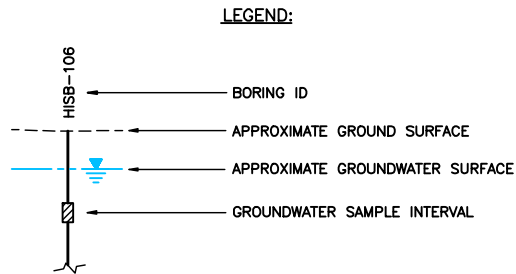
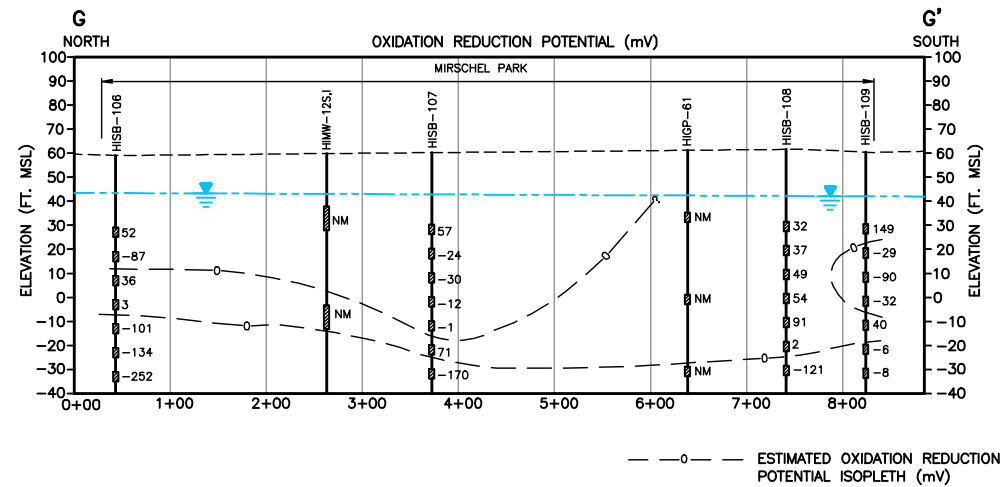
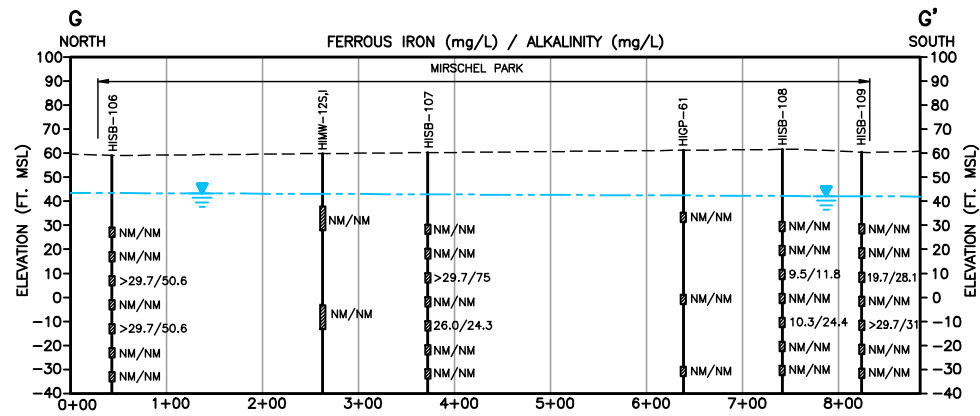
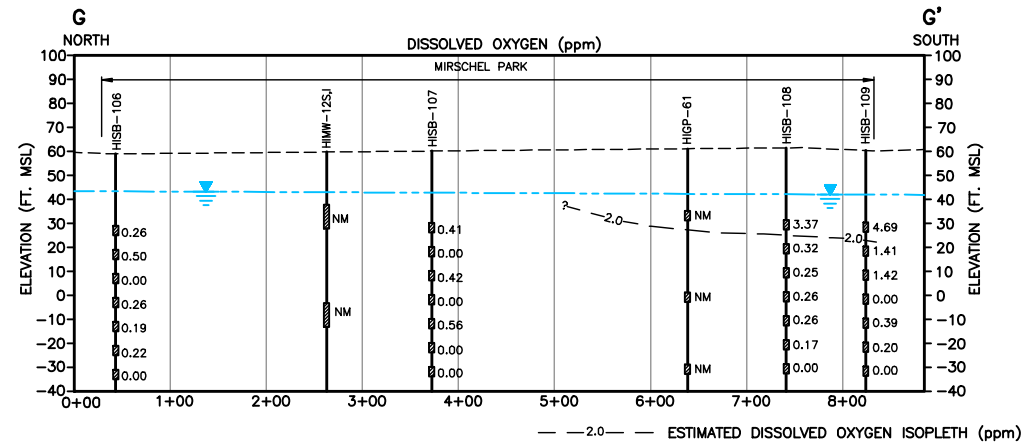
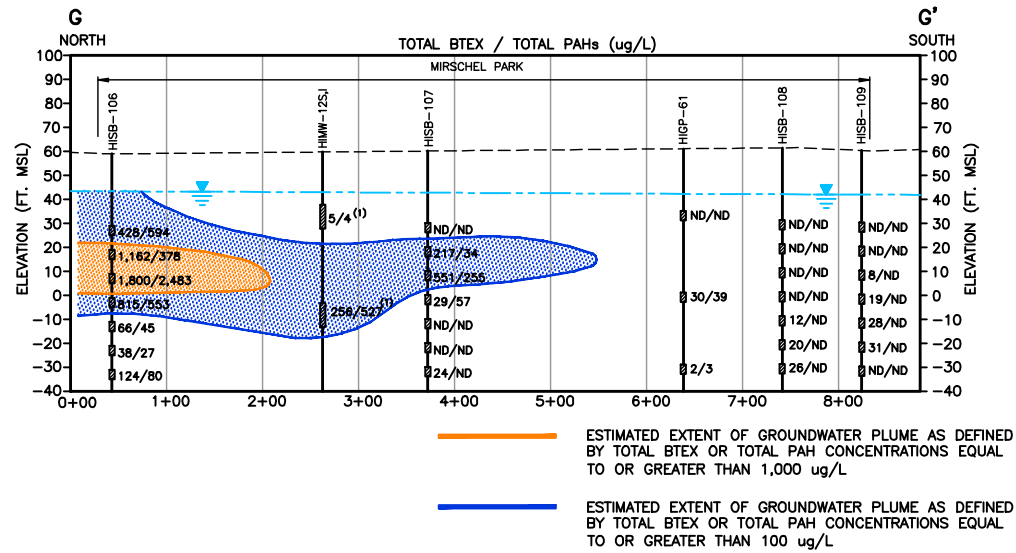
LEGEND:



ABBREVIATIONS:

BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
FT.	FEET
MSL	MEAN SEA LEVEL
ND	NOT DETECTED
NM	NOT MEASURED
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
mg/L	MILLIGRAMS PER LITER
mV	MILLIVOLTS
ppm	PARTS PER MILLION
ug/L	MICROGRAMS PER LITER





- ABBREVIATIONS:**
- BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
 - FT. FEET
 - MSL MEAN SEA LEVEL
 - ND NOT DETECTED
 - NM NOT MEASURED
 - PAHs POLYCYCLIC AROMATIC HYDROCARBONS
 - mg/L MILLIGRAMS PER LITER
 - mV MILLIVOLTS
 - ppm PARTS PER MILLION
 - ug/L MICROGRAMS PER LITER



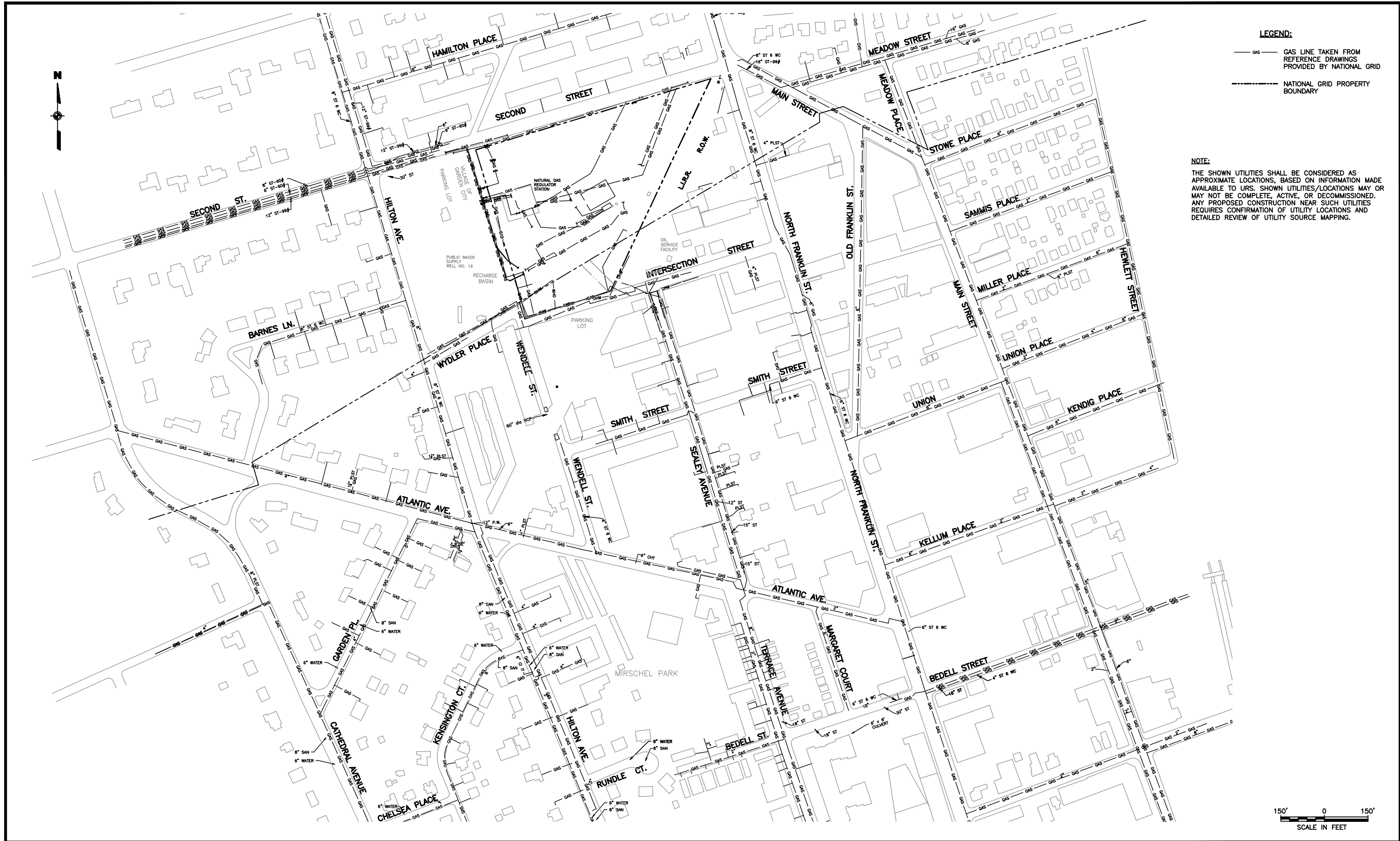
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**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
SITE-WIDE UTILITIES
(COMPOSITE)**

FIGURE 3-18

J:\1175065.00000\CAD\TASK2\HEMPSTEAD\DESIGN INVESTIGATION\SITEWIDE UTILITIES 2010.dwg, GAS 2/5/10 - 1 SRV



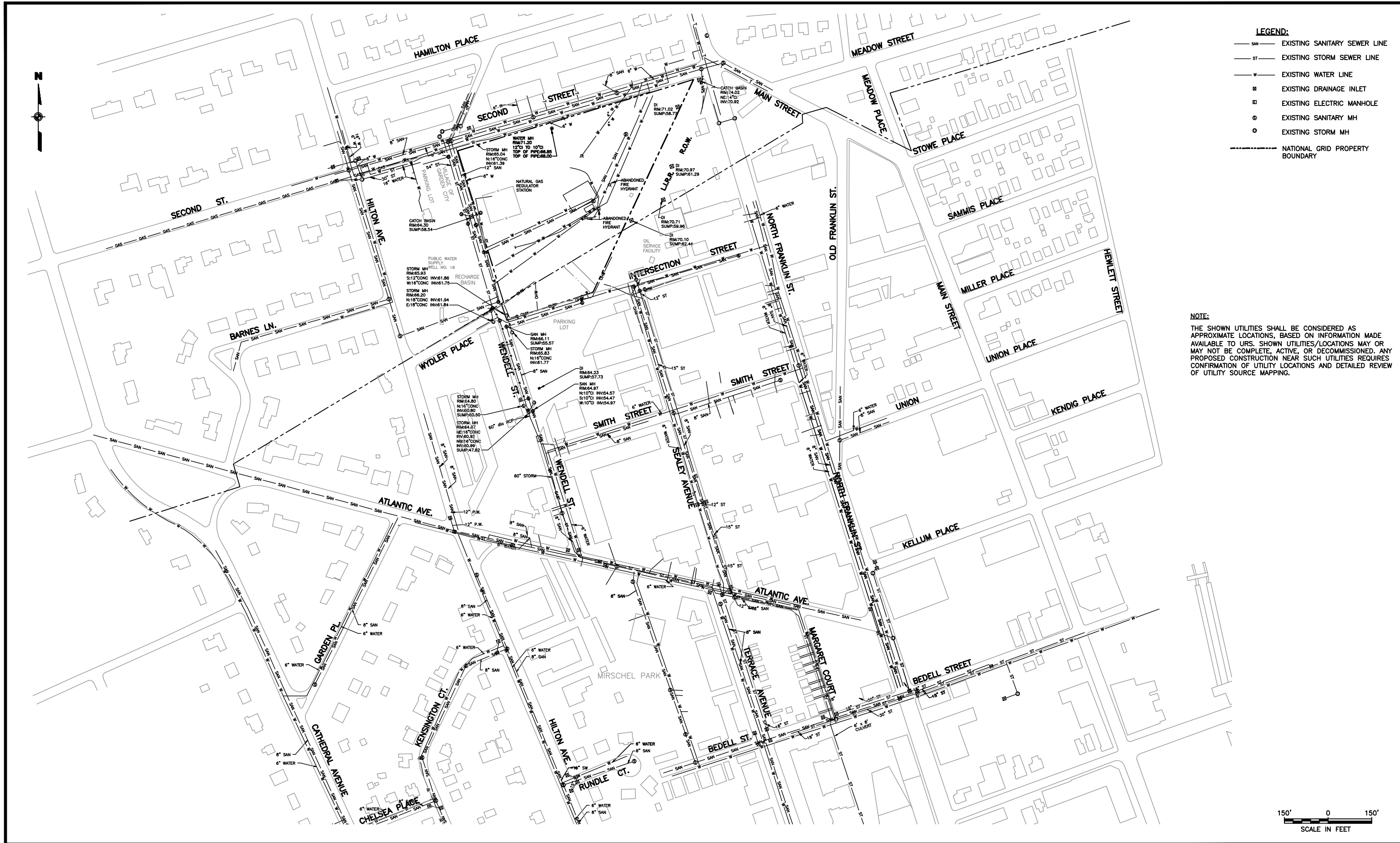
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**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
SITE-WIDE UTILITIES
(GAS)**

FIGURE 3-19

J:\1175065.00000\CAD\TASK2\HEMPSTEAD\DESIGN UTILITIES 2010.dwg, STORM-SAN-WAT 2/5/10 - 1 SRV



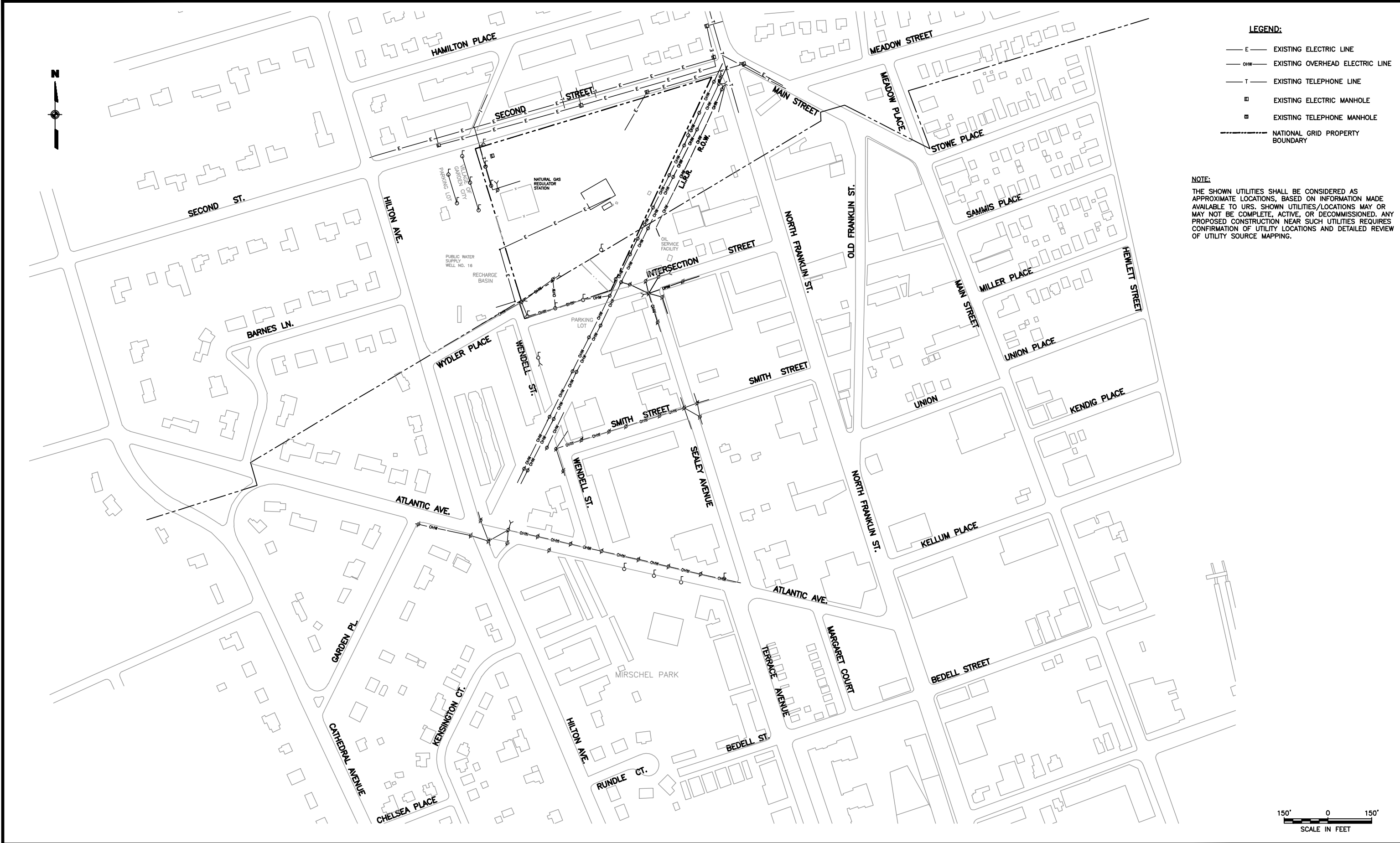
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**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
SITE-WIDE UTILITIES
(STORM SEWER, SANITARY SEWER
AND WATER)**

FIGURE 3-20

J:\1175065.00000\CAD\DRAW\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\SITEWIDE UTILITIES 2010.dwg, ELECTRIC & TEL 2/5/10 - 1 RMB



LEGEND:

- E — EXISTING ELECTRIC LINE
- OHW — EXISTING OVERHEAD ELECTRIC LINE
- T — EXISTING TELEPHONE LINE
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- - - NATIONAL GRID PROPERTY BOUNDARY

NOTE:

THE SHOWN UTILITIES SHALL BE CONSIDERED AS APPROXIMATE LOCATIONS, BASED ON INFORMATION MADE AVAILABLE TO URS. SHOWN UTILITIES/LOCATIONS MAY OR MAY NOT BE COMPLETE, ACTIVE, OR DECOMMISSIONED. ANY PROPOSED CONSTRUCTION NEAR SUCH UTILITIES REQUIRES CONFIRMATION OF UTILITY LOCATIONS AND DETAILED REVIEW OF UTILITY SOURCE MAPPING.

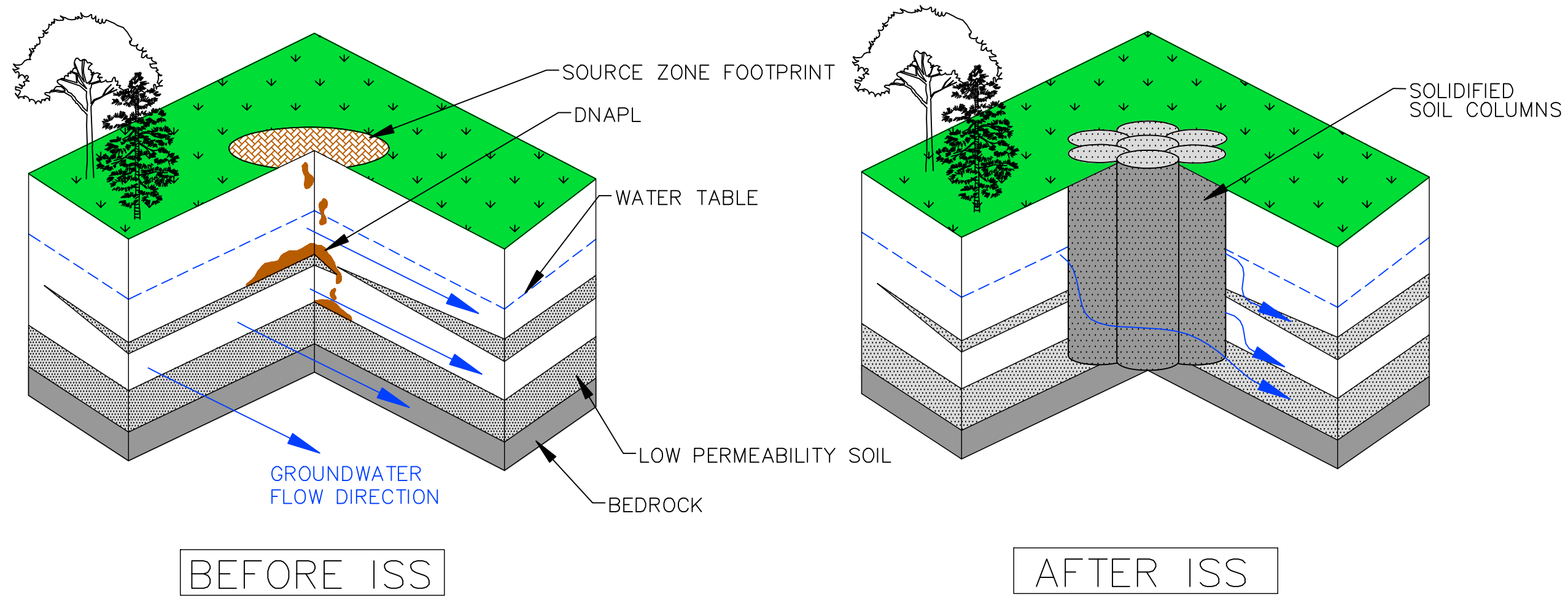
URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
SITE-WIDE UTILITIES
(ELECTRIC & TELEPHONE)**

FIGURE 3-21

J:\11175065.0000\CAD\DRAWING\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 4-1.dwg, 4/20/09, 12, 1- SRV

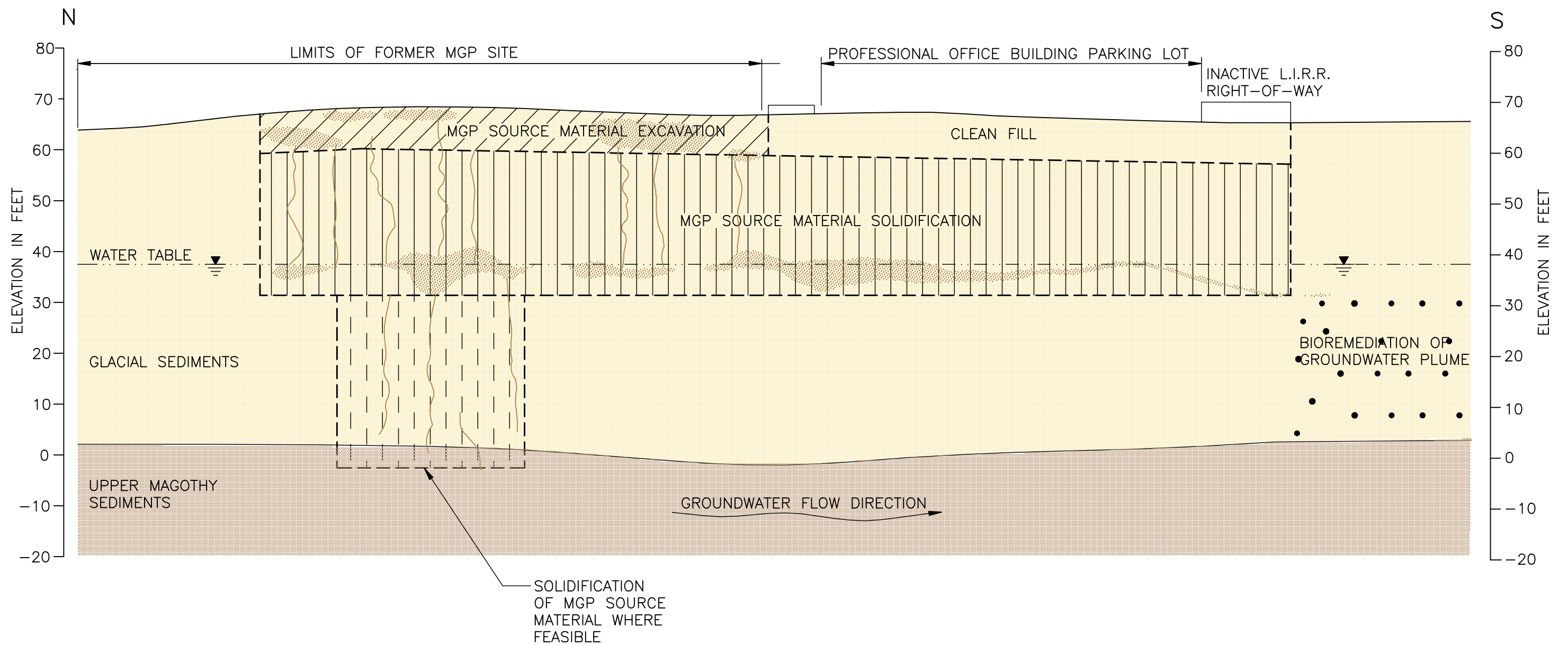


URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
IN SITU SOLIDIFICATION
ILLUSTRATION**

FIGURE 4-1



LEGEND:



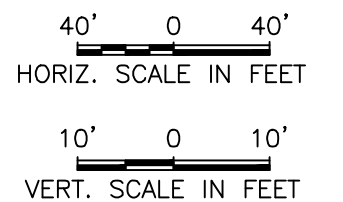
WATER TABLE



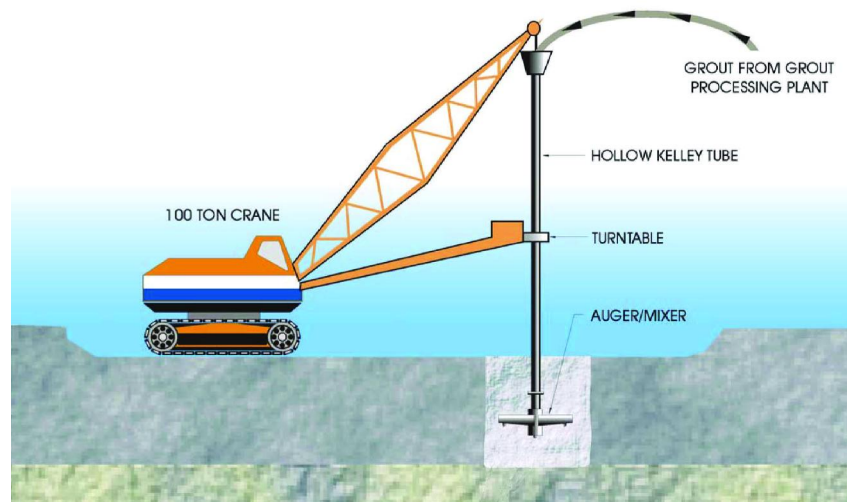
AREAS CONTAINING
TAR/NAPL
SATURATED SOILS



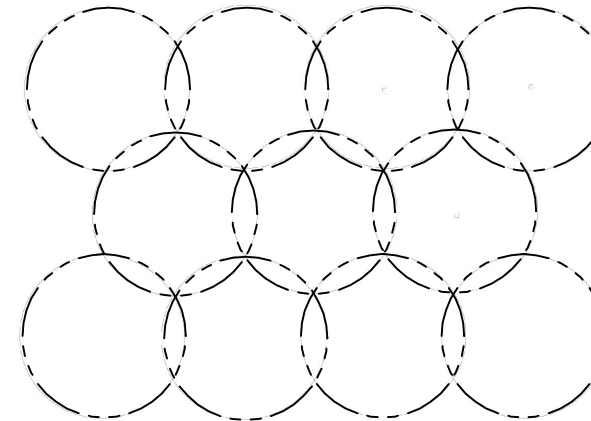
AREAS CONTAINING NAPL
STRINGERS



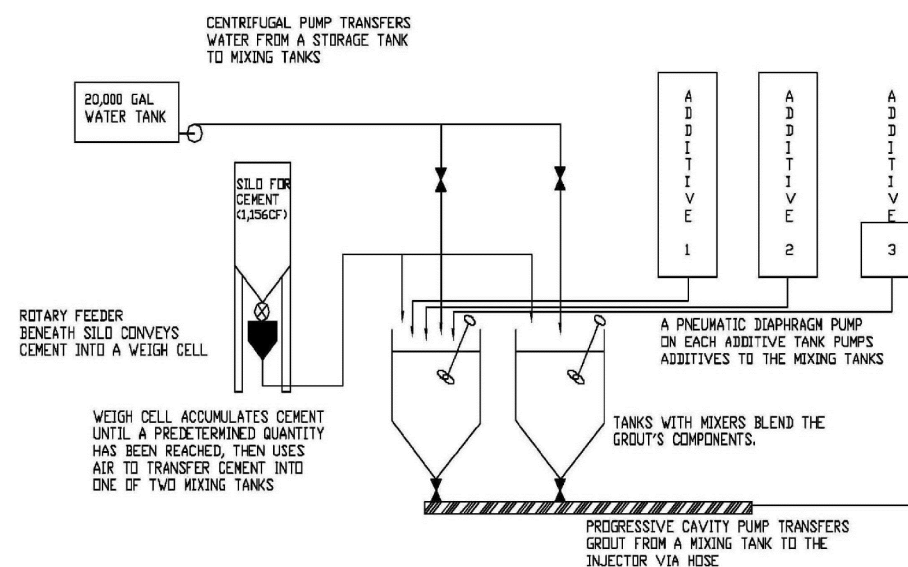
J:\1175065.00000\CAD\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 4-3 CONCEPTUAL DETAILS.dwg, FIG 7-2, 4/20/09 - 1 SRV



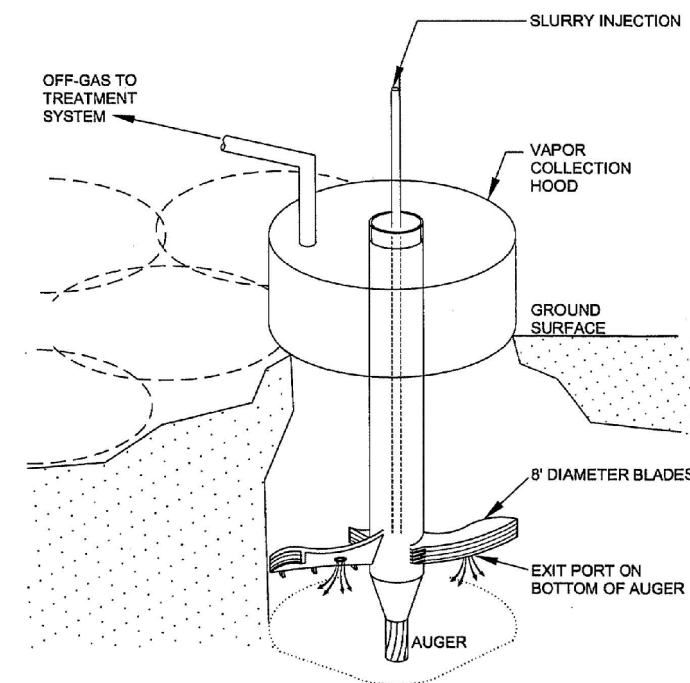
TYPICAL IN SITU AUGER
MIXING RIG SCHEMATIC
NOT TO SCALE



TYPICAL IN SITU SOIL MIXING
COLUMN LAYOUT SCHEMATIC
NOT TO SCALE



TYPICAL GROUT BATCH PLANT
NOT TO SCALE



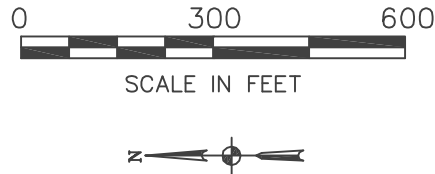
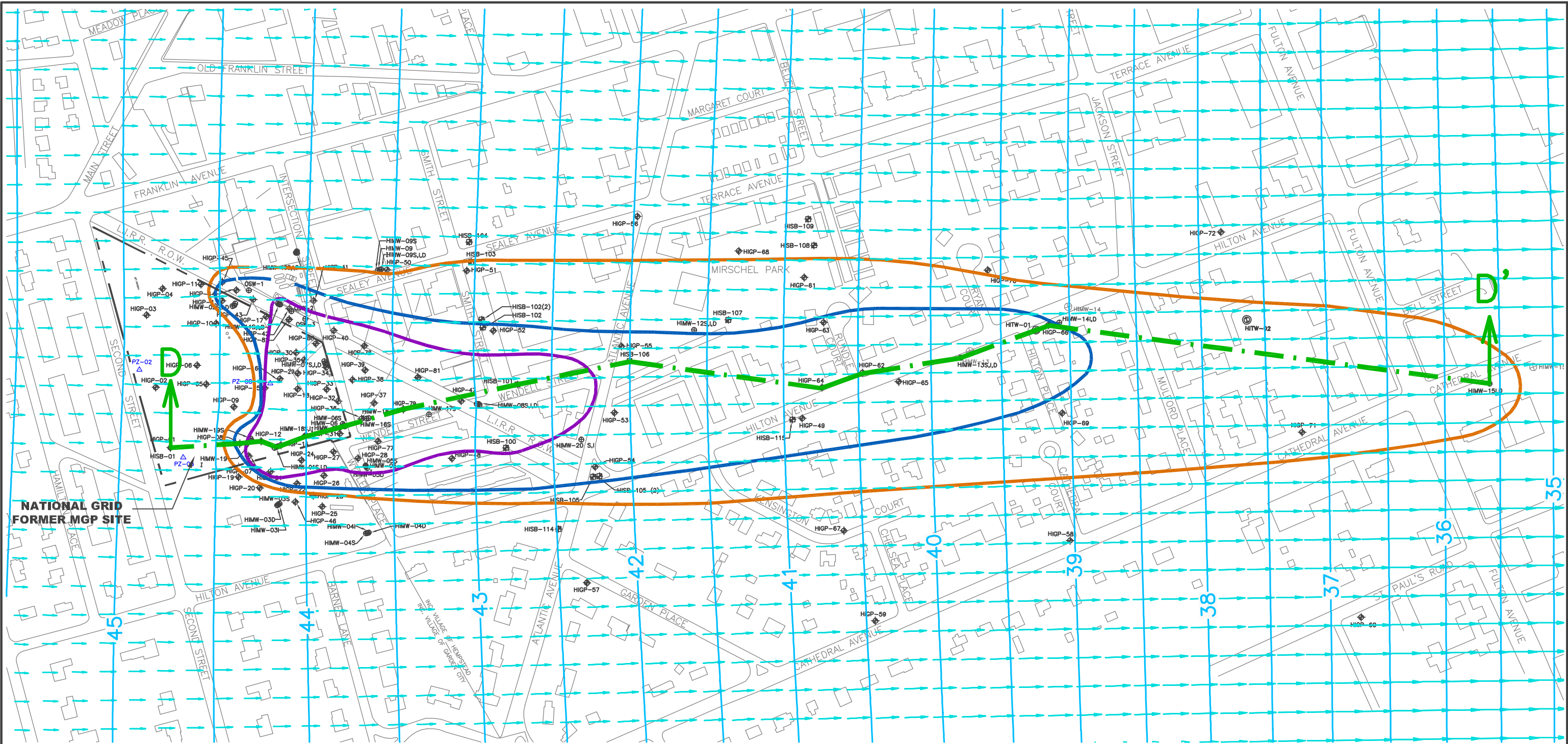
INJECTION/MIXING AUGER
NOT TO SCALE

URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
IN SITU SOLIDIFICATION
CONCEPTUAL DETAILS**

FIGURE 4-3



LEGEND	
	SIMULATED GROUNDWATER EQUIPOTENTIAL LINE (FT MSL)
	SIMULATED GROUNDWATER FLOW VECTOR
	SECTION D
	NATIONAL GRID PROPERTY BOUNDARY
	ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTX AND/OR TOTAL PAH CONCENTRATIONS EQUAL TO, OR GREATER, THAN 5,000 MICROGRAMS PER LITER (UG/L)
	ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTX AND/OR TOTAL PAH CONCENTRATIONS EQUAL TO, OR GREATER, THAN 1,000 UG/L
	ESTIMATED EXTENT OF GROUNDWATER PLUME AS DEFINED BY TOTAL BTX AND/OR TOTAL PAH CONCENTRATIONS EQUAL TO, OR GREATER, THAN 100 UG/L

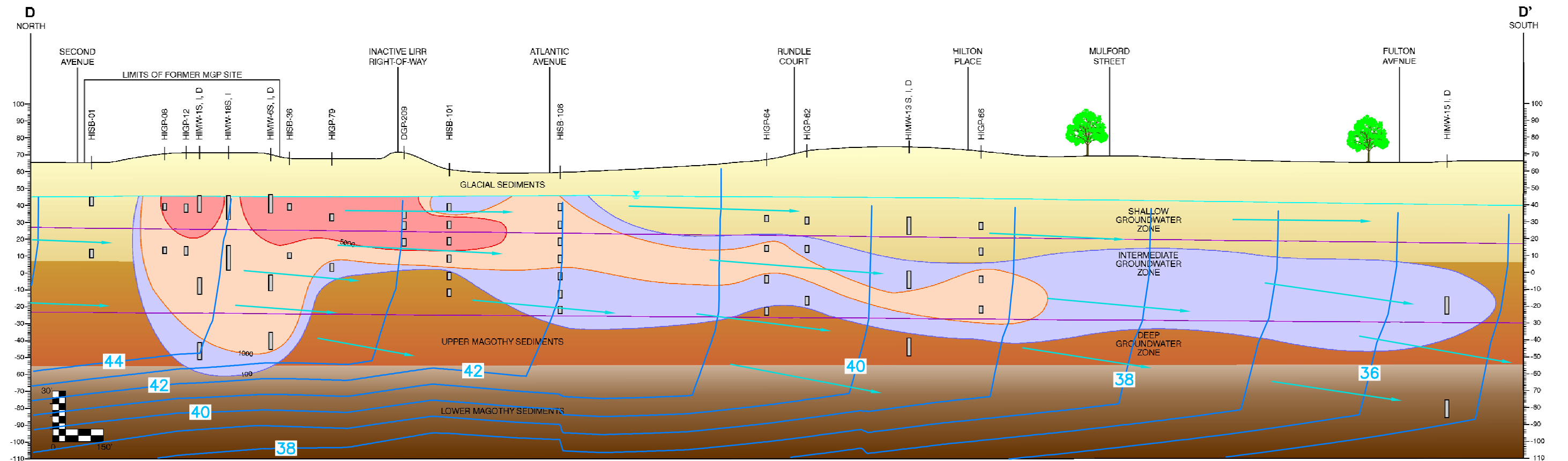
URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
PRE REMEDIATION
SIMULATED GROUNDWATER FLOW
REGIME - PLAN**

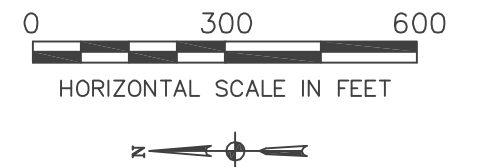
FIGURE 4-4

P:\acad-project\Keyspan-Hempstead-NY\dwg\GwModel.dwg, Fig 4-5 GwModel_Pre Remed Section, 4/21/2009 3:54:35 PM



LEGEND

- GROUNDWATER SURFACE (APPROXIMATE DEPTH)
- >5,000 MICROGRAMS PER LITER (UG/L) BTEX OR PAHs
- >1,000 UG/L BTEX OR PAHs
- >100 UG/L BTEX OR PAHs
- WELL SCREEN
- SIMULATED GROUNDWATER EQUIPOTENTIAL LINE (FT MSL)
- SIMULATED GROUNDWATER FLOW VECTOR

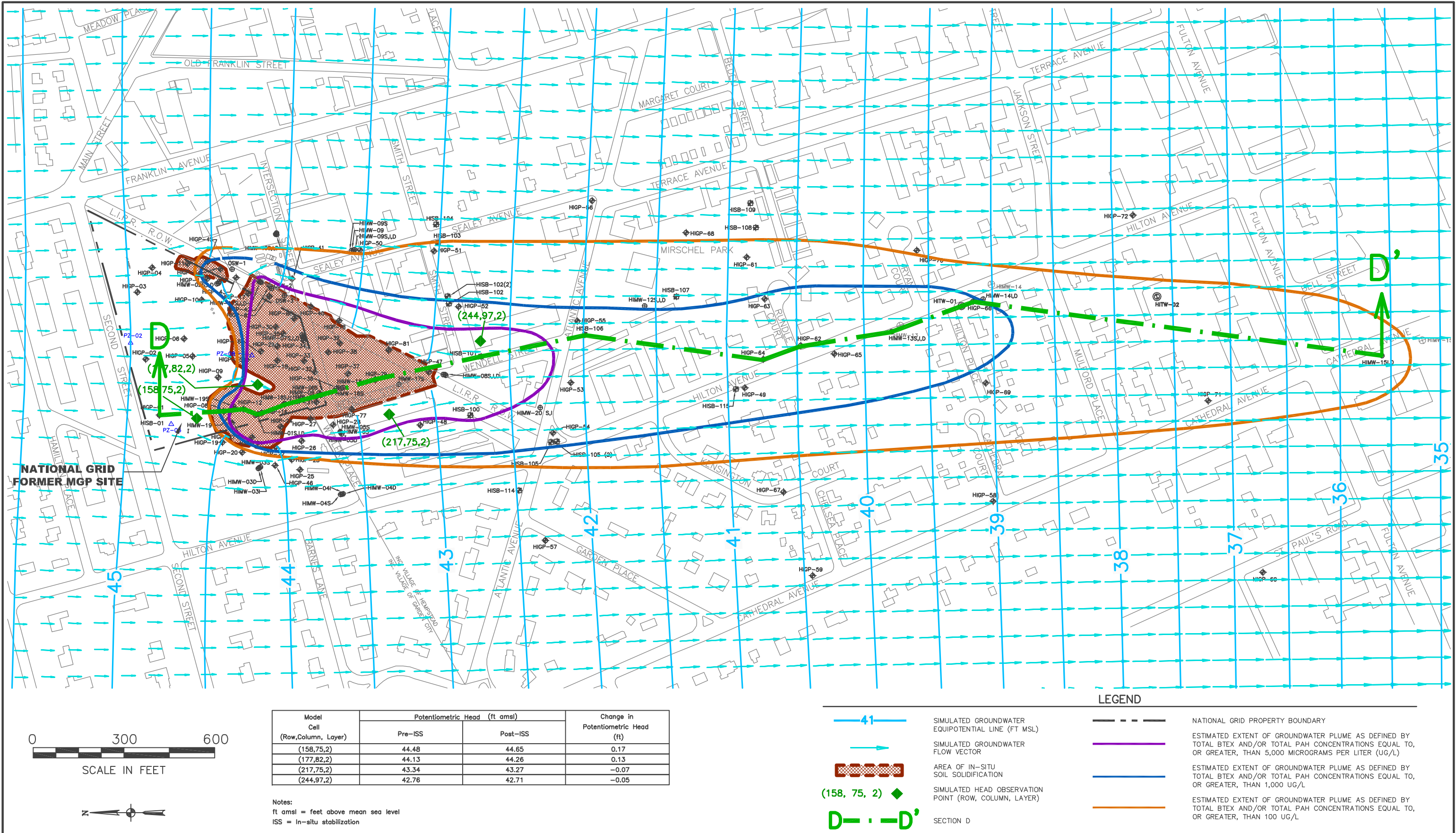


URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
PRE REMEDIATION
SIMULATED GROUNDWATER FLOW
REGIME - SECTION**

FIGURE 4-5

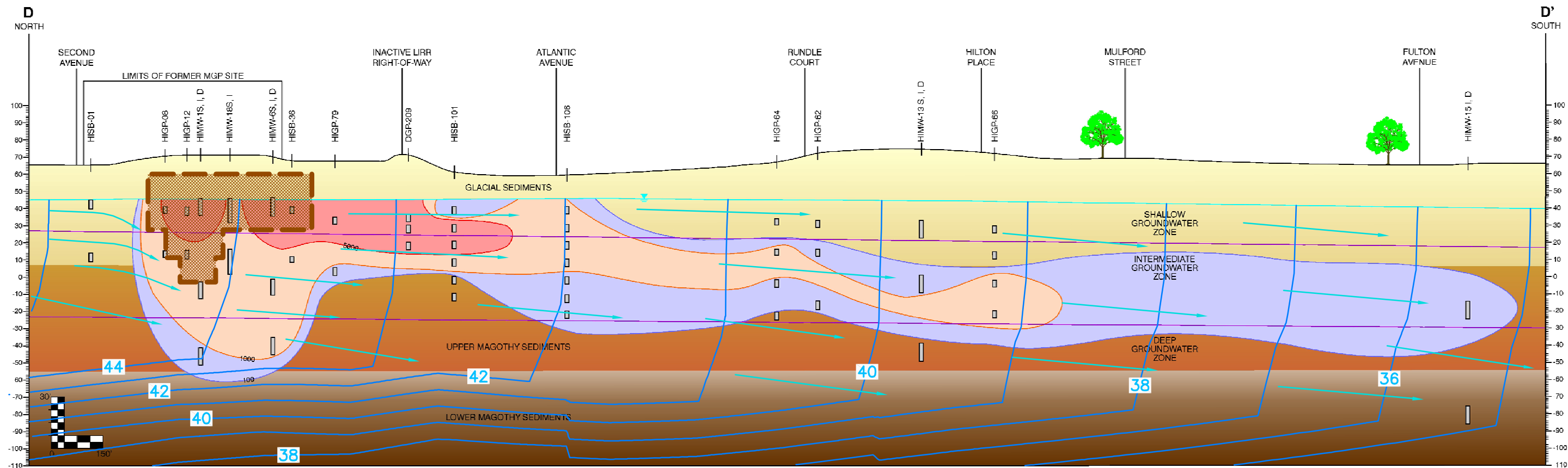


URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

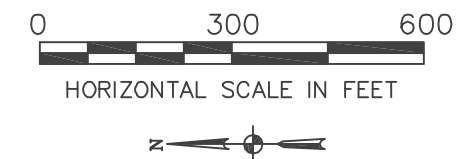
**PRE-DESIGN INVESTIGATION
POST REMEDIATION
SIMULATED GROUNDWATER FLOW
REGIME - PLAN**

FIGURE 4-6



LEGEND

- GROUNDWATER SURFACE (APPROXIMATE DEPTH)
- >5,000 MICROGRAMS PER LITER (UG/L) BTEX OR PAHS
- >1,000 UG/L BTEX OR PAHS
- >100 UG/L BTEX OR PAHS
- WELL SCREEN
- SIMULATED GROUNDWATER EQUIPOTENTIAL LINE (FT MSL)
- SIMULATED GROUNDWATER FLOW VECTOR
- AREA OF IN-SITU SOIL SOLIDIFICATION



URS Corporation

NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY

PRE-DESIGN INVESTIGATION
POST REMEDIATION
SIMULATED GROUNDWATER FLOW
REGIME - SECTION

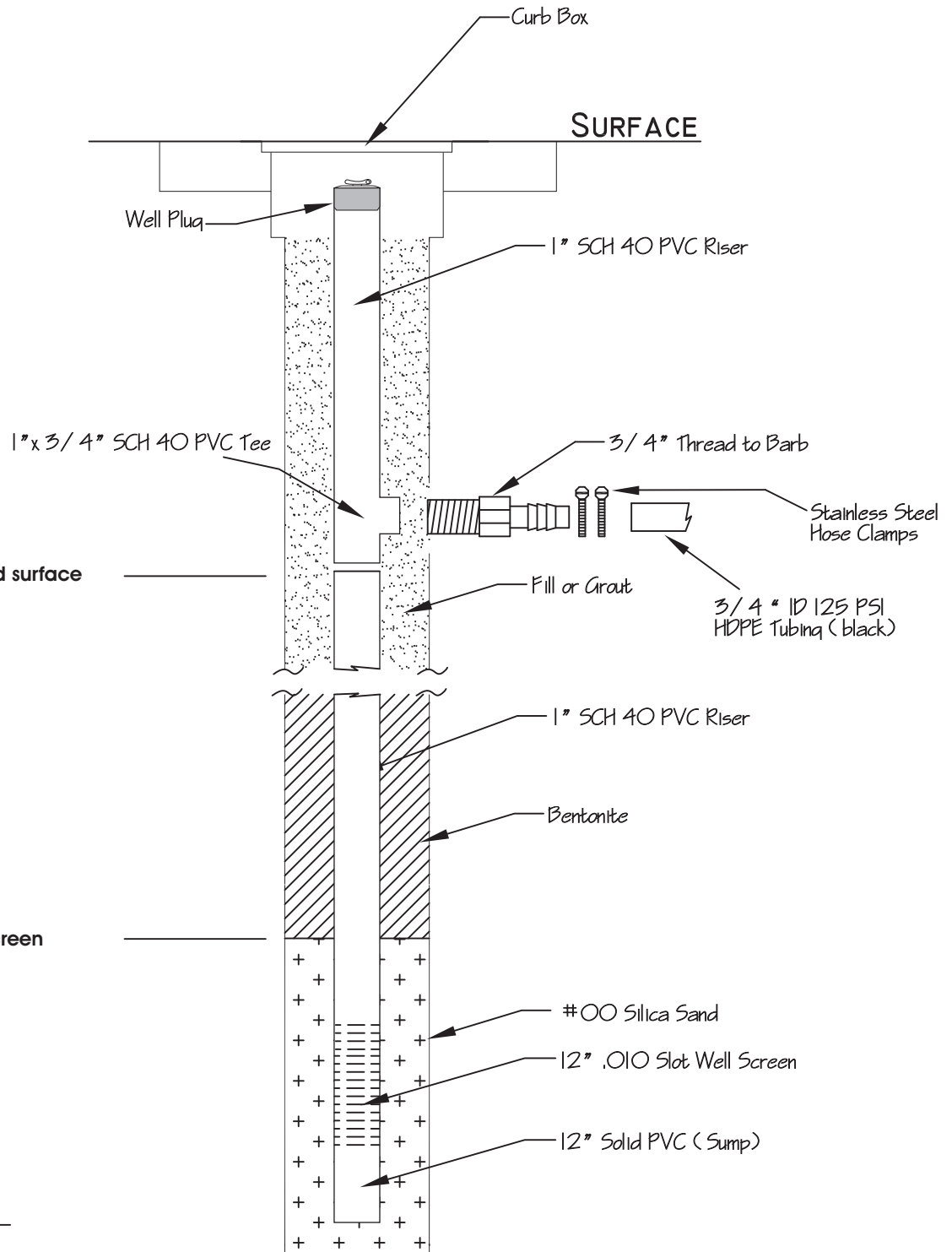
FIGURE 4-7

DEPTH

0.5'

2' below ground surface

1' above screen

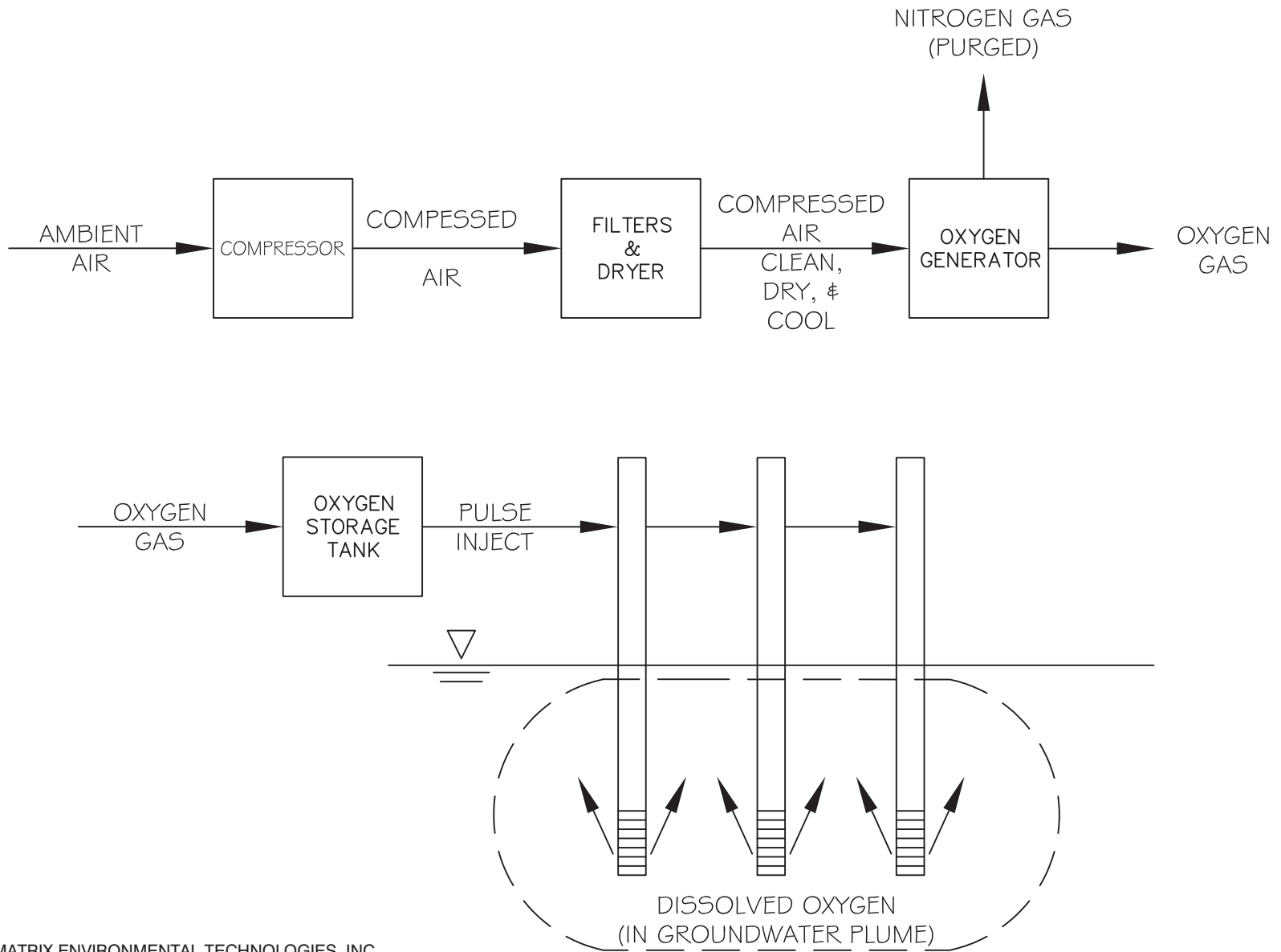


REFERENCE: MATRIX ENVIRONMENTAL TECHNOLOGIES, INC.

URS

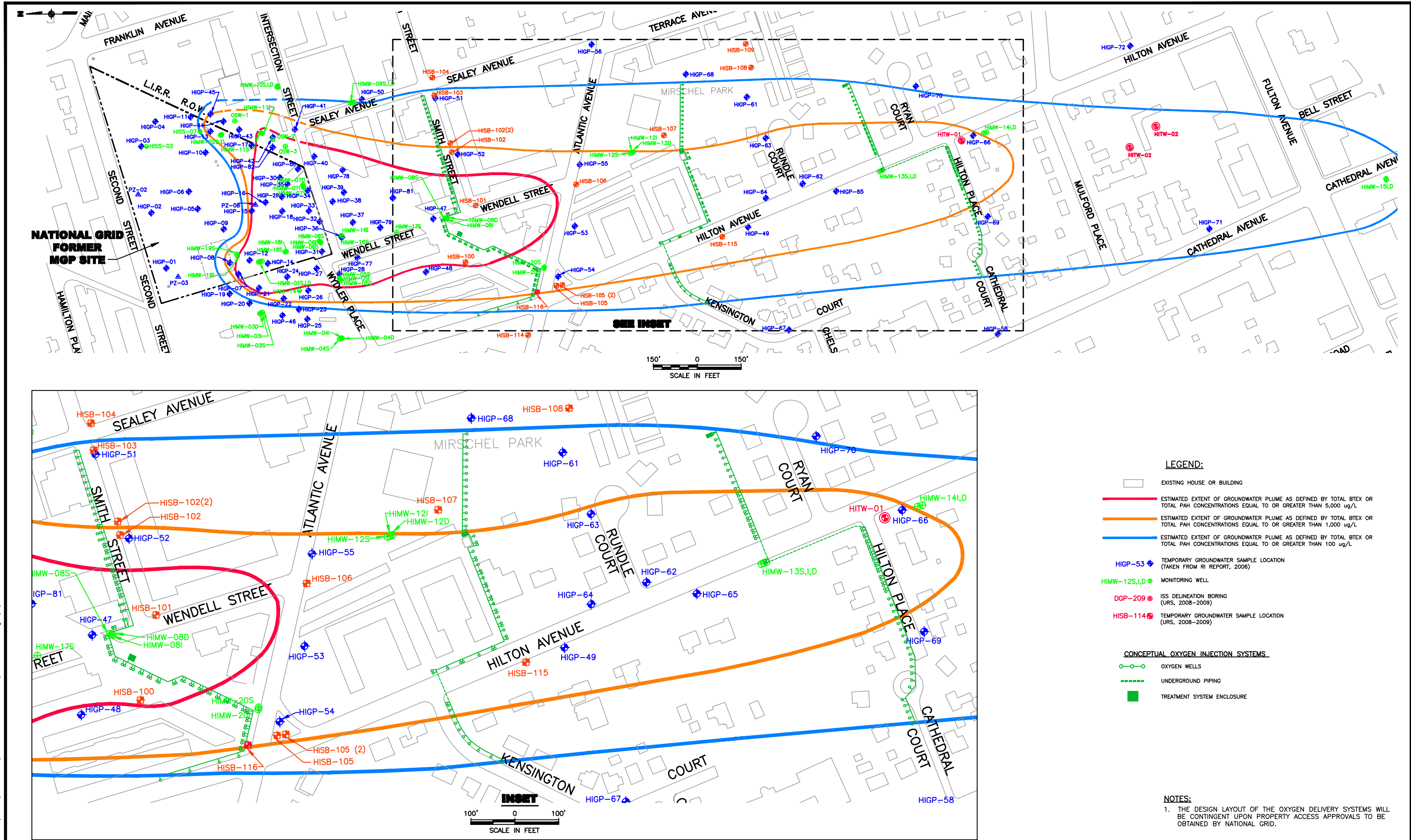
NATIONAL GRID HEMPSTEAD INTERSECTION
STREET FORMER MGP SITE
TYPICAL OXYGEN DELIVERY WELL

FIGURE 4-8



REFERENCE: MATRIX ENVIRONMENTAL TECHNOLOGIES, INC.

J:\1175065.00000\CAD\PROJECTS\TASK2\HEMPSTEAD\PREDESIGN INVESTIGATION\FIGURE 4-10.dwg 2/5/10 - 1 SRV



URS Corporation

**NATIONAL GRID
HEMPSTEAD INTERSECTION STREET
FORMER MGP SITE
HEMPSTEAD/GARDEN CITY, NY**

**PRE-DESIGN INVESTIGATION
CONCEPTUAL LAYOUT OF
OXYGEN DELIVERY SYSTEMS**

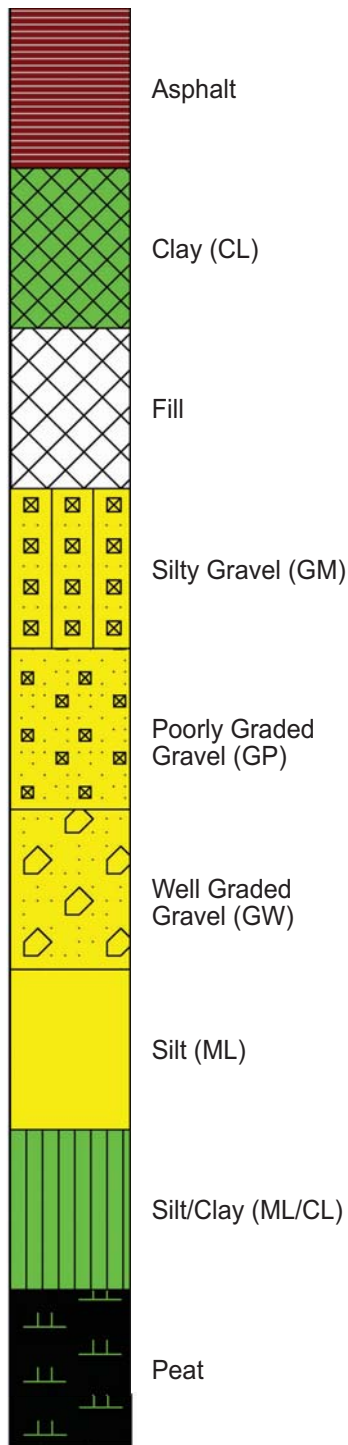
FIGURE 4-10

APPENDIX A

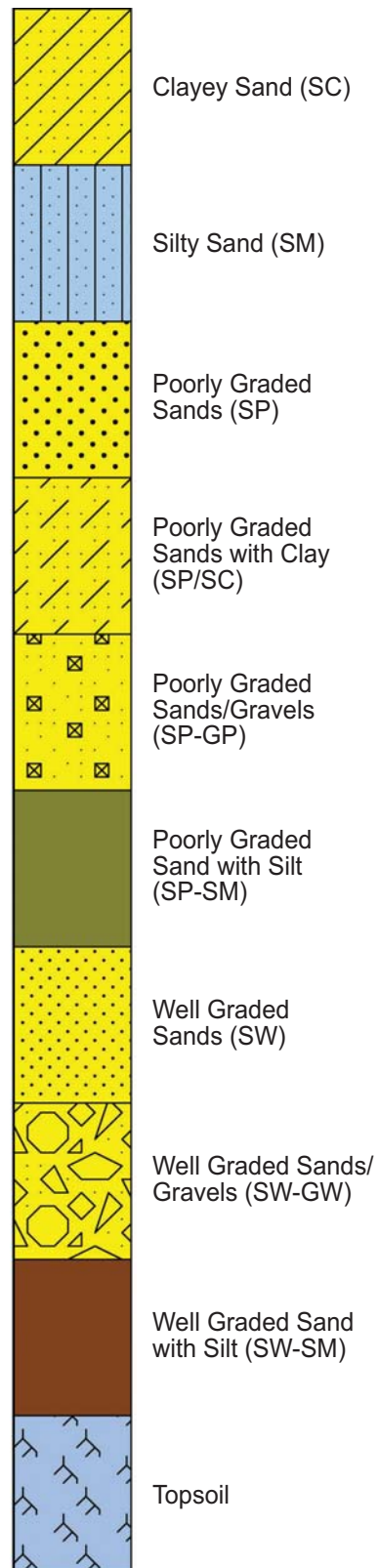
**BORING AND TEST PIT LOGS, WELL CONSTRUCTION
DIAGRAMS**

Boring Logs

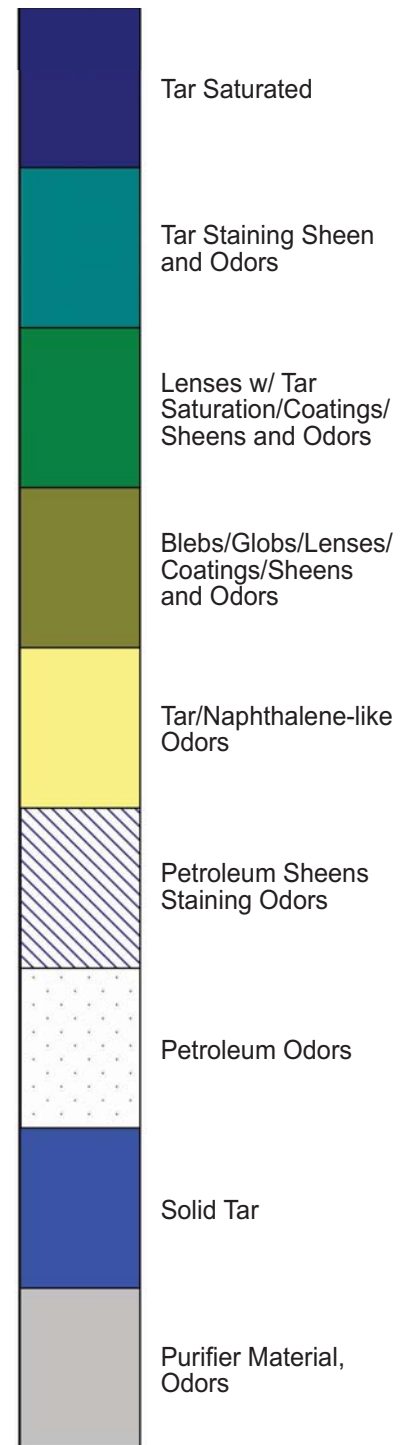
STRATA

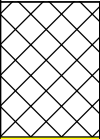



STRATA



IMPACTS

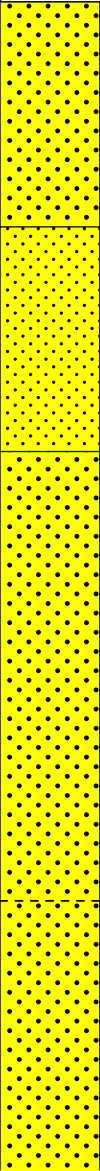



<div>URS Corporation</div>										<div>TEST BORING LOG</div>				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-139				
CLIENT: National Grid										SHEET: 1 OF 1				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: N/A										BORING LOCATION: Area E				
CAS.										GROUND ELEVATION: N/A				
SAMPLER										DATE STARTED: 11/12/08				
CORE										DATE FINISHED: 11/12/08				
TUBE										DRILLER: K. Kegel				
DATE										GEOLOGIST: J. Harshman				
TIME										REVIEWED BY: K. Connare				
LEVEL														
TYPE														
TYPE														
DIA.														
WT.														
FALL														
* POCKET PENETROMETER READING														
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION			USCS	MGP	PID	MOISTURE	
		NO.	BLOW COUNT	RQD%		CONSISTENCY				ROCK	HARDNESS	COLOR CODE		HCN
0		1	-	78%	Black	Dense	FILL. Coal fragments, ash like material (ALM), fine sand, trace gravel. No MGP impact.			FILL		0.0	Dry	
					Dark Brown	Stiff	SILT. No MGP impact.			ML			0.0	
					Yellow-Orange									
-5							End of boring at 5' bgs.							

<div>URS Corporation</div>										<div>TEST BORING LOG</div>				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-201				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~23' bgs.										BORING LOCATION: Wydler & Wendell Streets				
CAS.										GROUND ELEVATION: N/A				
SAMPLER														
CORE														
TUBE														
DATE										DATE STARTED: 10/29/08				
TIME										DATE FINISHED: 10/29/08				
LEVEL										DRILLER: K. Kegel				
TYPE										GEOLOGIST: J. Harshman				
TYPE														
DIA.														
WT.														
FALL														
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET										USCS				
STRATA										MGP COLOR CODE				
SAMPLE NO.										PID				
BLOW COUNT										MOISTURE HCN				
REC%														
RQD%														
COLOR														
SOIL CONSISTENCY														
ROCK HARDNESS														
MATERIAL DESCRIPTION														
0										SP				
-5										SW				
-10										SP				
-15														
-20														
-25														
1										0.0				
2										0.0				
3										0.0				
4										0.0				
5										0.0				
6										0.0				
100%										Moist-Dry				
77%										0.0				
72%										0.0				
77%										0.0				
73%										0.0				
80%										0-1				
Dark Brown														
Orange-Light Brown														
Light Brown-Brown														
Orange-Tan														
Loose-Medium Dense														
Loose														
Fine-medium SAND, little fine-coarse gravel.														
Fine-coarse SAND, trace well graded gravel. No MGP impacts.														
Fine-coarse SAND, some poorly graded fine-coarse gravel.														
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.														
Borehole backfilled with cement-bentonite grout to grade.														
Boring handcleared from 0'-5'.														
BORING NO. : DGP-201														

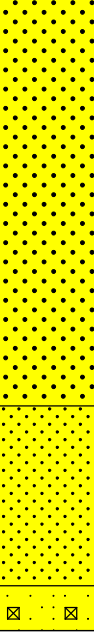

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	90%	Light Brown- Tan	Med. Dense Loose	-black and brown NAPL staining, slight-moderate NAPL coating, moderate naphthalene-like odor from 27.5' to 29.5'. Fine SAND, no staining, slight naphthalene-like odor. Fine-medium SAND, trace fine gravel. Slight naphthalene-like odor.	SM SP		60 450 40 10	0.0
-35		8	-	N/A	Light Brown		Fine-coarse SAND, some fine-coarse gravel, increasing gravel content at 38'. No MGP impacts.	SW		0.3 0.0	1 0.0
-40							End of Boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-202				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~24' bgs										BORING LOCATION: MOB Parking Lot				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/29/08					
				DIA.		2-inch			DATE FINISHED: 10/29/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose	Silty sand grading to fine-medium sand, little fine-medium gravel. No MGP impact.	SP		0.0	Moist			
-5		2	-	68%	Orange-Light Brown	Loose-Medium Dense	Fine-coarse SAND, trace well graded fine-coarse gravel. No MGP impact.	SW		0.0	Dry			
-10		3	-	62%	Orange-Brown	Medium Dense	Fine-coarse SAND, some poorly graded fine-medium gravel. No MGP impact.	SP		0.0	0.0			
-15		4	-	70%						0.0	0.0			
-20		5	-	73%	Brown-Tan	Loose-Medium Dense	Fine-coarse SAND, trace-little fine gravel. Brown NAPL staining from 22'-23', heavy brown staining and NAPL coating from 24'-25', moderate naphthalene-like odor.			1	0-1			
-25		6	-	90%						50	Wet			
									100		2-4			
									50					
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.														
Borehole backfilled with cement-bentonite grout to grade.														
Boring handcleared from 0'-5'.														
BORING NO. : DGP-202														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	75%		Medium Dense	-Heavy MGP impact from 25'-28'. Moderate NAPL coating, black and brown staining, blebs, sheen. 100% NAPL saturation from 28'-29.5'. Strong naphthalene-like odor throughout. Fine SILTY SAND. Slight NAPL staining, sheen. Fine-medium SAND. Moderate naphthalene-like odor.	SM SP		100 320 800 40 20	0-1
-35		8	-	N/A	Light Brown	Loose- Medium Dense	Fine-medium SAND, some fine- coarse gravel, increasing gravel content from 38'-40'. Slight naphthalene-like odor.	SW		220	0-1
-40							End of boring at 40' bgs.			100	
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%			gravel. No MGP impacts.			1.2	0.0
										3.8	
										2.5	
										3.1	
-35		8	-	97%		Medium Dense- Dense	Fine-coarse SAND, fine-medium gravel. Burnt plastic odor, no staining.	SW		74.3	0.0
-40						Very Dense	Fine-coarse GRAVELLY SAND, trace cobbles. Burnt plastic odor, no staining.	SP-GP		64.7	
							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-205				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: In front of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/25/08					
				DIA.		2-inch			DATE FINISHED: 10/25/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: M. Dascoli					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Brown	Medium Dense	FILL. Sand and silt with fine-medium gravel, trace asphalt. No MGP impact.	FILL		0.0	Dry			
-5		2	-	65%		Loose	Fine-coarse SAND, some fine-medium gravel, trace silt. No MGP impact.	SP-SM		0.0	0.0			
					Dark Brown	Stiff	Fine-coarse SANDY SILT, trace fine gravel. No MGP impact.	ML		11.5				
					Orange-Brown	Dense- Very Dense	Fine-coarse SAND, little fine-medium gravel.	SW		15.8				
-10		3	-	67%		Loose-Medium Dense	Fine-coarse SAND, little fine-medium gravel.	SW-GW		7.2	0.0			
							Fine-coarse SAND and fine-coarse GRAVEL. No MGP impact.			2.5				
										5.1				
-15		4	-	67%						3.1	0.0			
										3.8				
										5.1				
-20		5	-	97%	Tan	Loose				3.1	0.0			
										5.1				
					Orange-Brown					7.6				
-25		6	-	83%			Fine SAND, little coarse sand. Black	SP		8.3	Wet 1			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-205														

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30	Yellow dotted pattern	7	-	97%	Tan		NAPL staining and sheen from 25.5'-26'. -black NAPL saturation and staining from 27'-29'. -6" of black NAPL at 28'. ----- Fine SAND, trace fine gravel. Slight naphthalene-like odor.			23 225 237 38.4 24.4 24.1 23.9	2 8 0.0
-35		8	-	97%	Light Brown	Loose-Medium Dense	Fine-coarse SAND. Slight naphthalene-like odor.	SW		43.5 28.1	0.0
-40	Yellow dotted pattern with 'x' marks					Dense	Fine-medium GRAVEL. Slight naphthalene-like odor.	GP		36.1 25.3	
-45							End of boring at 40' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-206

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: In front of MOB

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 10/25/08
 DATE FINISHED: 10/26/08
 DRILLER: K. Kegel
 GEOLOGIST: J. Harshman & M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Brown	Loose-Medium Dense	FILL. Sand with some silt and medium gravel, trace metal slag and brick. No MGP impacts.	FILL		0.0	Slightly Moist 0.0
-5		2	-	77%		Stiff	CLAY, some fine-coarse sand. No MGP impacts.	CL		0.0	0.0
					Dark Brown	Dense- Very Dense	Fine-medium SANDY GRAVEL, some silt. No MGP impacts.	GM			
-10		3	-	70%	Orange-Brown	Medium Dense	Fine-coarse SAND and GRAVEL. No MGP impacts.	SW-GW		0.0	Dry 0.0
-15		4	-	58%			Fine-coarse SAND with some fine-coarse gravel, trace cobble.	SW		0.0 2.5 3.8 5.1	0.0
-20		5	-	63%	Tan	Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel.			13.4 15.9 16.1	0.0
					Dark Brown		-light brown staining and faint naphthalene-like odor from 24'-25'.			25	1.0
-25		6	-	82%			Fine-medium SAND. Heavy black	SP		100	Wet 2.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Borehole backfilled with cement-bentonite grout to grade.
 Boring handcleared from 0'-5'.

BORING NO. : DGP-206

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							NAPL staining and moderate NAPL coating, sheen and moderate naphthalene-like odor.				1.0
										10	0.0
					Light Brown	Loose	Fine-medium SAND, trace silt. Slight sheen and faint naphthalene-like odor.	SM		7.0	
-30		7	-	88%		Loose-Medium Dense	Fine-coarse SAND, trace silt. Faint naphthalene-like odor.	SW-SM		4.0	0.0
										8.0	
										10	
										8.0	
-35		8	-	80%	Brown	Medium Dense	Fine SILTY SAND, trace fine gravel. Faint naphthalene-like odor.	SM		15	
					Light Brown		Fine-coarse SAND, some fine-coarse gravel. Faint naphthalene-like odor.	SW		30	0.0
										20	
										10	
							-no NAPL staining or naphthalene-like odors from 38'-40'.			4.0	
-40										2.0	
							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-207

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: In front of MOB

GROUNDWATER: ~23' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/26/08

DIA. 2-inch

DATE FINISHED: 10/26/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: J. Harshman











* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	Medium Dense	FILL. Fine-medium loamy sand, little fine-medium gravel, trace cobble. No MGP impact.	FILL		0.0	Moist-Dry 0.0
-5		2	-	72%	Brown	Stiff	SILT.	ML		0.0	Moist
					Dark Brown-Brown	Medium Dense	Fine-coarse SAND and GRAVEL. No MGP impact.	GP			Moist-Dry
					Light Brown	Loose-Medium Dense	Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SP			Dry
-10		3	-	68%	Orange-Brown					0.0	0.0
-15		4	-	77%		Loose	Fine-coarse SAND, little fine-medium gravel, well graded. No MGP impact.	SW		0.0	0.0
-20		5	-	67%	Light Brown					0.0	Moist-Dry 0.0
					Dark Brown		Fine-medium SAND, trace fine gravel. Light NAPL coating, brown staining and sheen , slight naphthalene-like odor.	SP		5.0	Wet
-25		6	-	90%			-Heavy MGP impact, three 4" seams			120	2.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-207

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	87%	Light Brown		of NAPL saturation with blebs. Black staining and strong naphthalene-like odor throughout from 25'-28'.			220	3.0
							Fine SAND. Faint naphthalene-like odor.			320	
-35		8	-	97%		Medium Dense	Fine-medium SAND, little fine-medium well graded gravel. Faint naphthalene-like odor.	SW		60	5.0
										30	4.0
-40										5.0	0-2
										10	
-45										20	
										12	
-50										6.0	
										20	0-2
-55										10	
										4.0	
-60										2.0	
										0.0	
-65							End of boring at 40' bgs.				

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-208

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: South end of MOB

GROUNDWATER: ~23'

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 11/3/08

DIA. 2-inch

DATE FINISHED: 11/3/08

WT.


DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

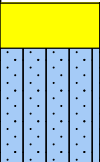
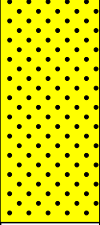
* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

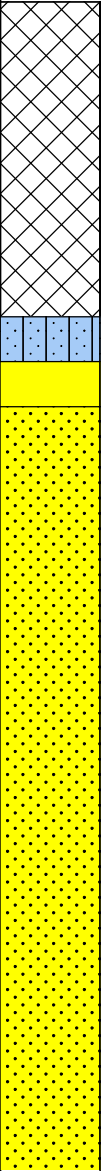
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	Dense	FILL. Fine-medium sand. some silt, clay, and fine-medium gravel. No MGP impacts.	FILL		0.0	Moist
-5		2	-	63%	Brown	Medium Dense	Fine-medium GRAVEL, some fine-coarse sand, trace silt.	GM		0.0	0.0
-10		3	-	75%			Fine-medium SAND, little fine-medium gravel. No MGP impacts.	SW		0.0	Dry 0.0
-15		4	-	70%		Loose-Medium Dense	-trace silt from 10'-15'			0.0	
-20		5	-	73%		Loose-Medium Dense	Fine-coarse SAND and GRAVEL. No MGP impacts.	SP-GP		0.0	0.0
-25		6	-	93%	Light Brown	Medium Dense- Dense	Fine-coarse SAND, some fine-coarse gravel. No MGP impacts.	SW		0.0	0.0
					Brown	Dense- Very Dense	Fine-medium SAND.	SP		0.0	Wet 0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-208

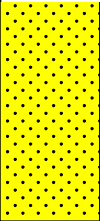
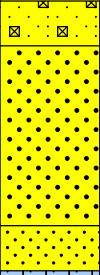
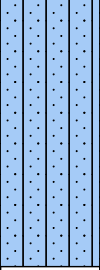
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%	Brown Orange- Brown	Dense	Fine SANDY SILT. No MGP impacts.	ML			
							Fine SAND, some silt. -light NAPL coating, 0.5" lens of NAPL saturation, blebs, moderate naphthalene-like odor from 28.5'-29'. NAPL sheen from 29'-30'. Fine SILTY SAND. Slight naphthalene-like odor.	SM		60 15 1.1 1.9 3.1 8.7 15.3	0-2
-35		8	-	97%	Light Brown- Gray	Loose- Medium Dense	Fine-coarse SAND, trace fine gravel. Moderate naphthalene-like odor and burnt plastic odor, no staining.	SP		66.2 104 59.0 65.7 160	1.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-209				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~27' bgs										BORING LOCATION: LIRR ROW, upgradient of HIMW-08				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/11/08					
				DIA.		2-inch			DATE FINISHED: 11/11/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose	FILL. Fine-medium loamy sand, trace silt and organic material, little fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	82%										
						Medium Dense						Fine SILTY SAND, trace-little fine gravel.	SM	
						Stiff						SILT, trace fine gravel. No MGP impact.	ML	
-10		3	-	67%	Light Brown-Orange	Loose	Fine-medium SAND, some fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-15		4	-	72%										
-20	5	-	73%											
-25	6	-	70%	Orange-Brown					0.0	0-2				
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Discrete groundwater samples collected for PAH and BTEX at 34'-38' with drive point screen. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-209														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Tan- Dark Brown						Wet
-30		7	-	88%	Brown- Gray	Loose- Medium Dense	Fine SILTY SAND. No MGP impacts.	SM		0.0	0-2
-35		8	-	N/A	Gray	Loose				0.0	0.0
-40		9	-	87%	Dark Gray		Fine-coarse SAND, trace fine gravel. Faint naphthalene-like odor.	SW		7.0 18 11 7.0	2.0 3.0 2.0
-45		10	-	93%	Gray	Loose- Medium Dense	Fine-coarse SAND. Faint naphthalene-like odor.			0.0 2.0	0.0 1.0 3.0 4.0
-50		11	-	95%	Light Brown		Fine-coarse SAND, trace fine-coarse gravel, well graded. Faint naphthalene-like odor.			9.0 6.0 7.0 6.0	2.0 1.0 2.0 1.0
-55		12	-	95%		Loose				0.0 0.6 2.4	0.0 1.0 2.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Discrete groundwater samples collected for PAH and BTEX at 34'-38' with drive point screen.
Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	85%		Medium Dense					1.0
											0.0
-65		14	-	93%		Loose- Medium Dense	Fine-coarse SAND and GRAVEL. Faint naphthalene-like odor.	GP			
							Fine SAND. Faint naphthalene-like odor from 64'-65'.	SP			0.0
-70		15	-	97%	Tan-Gray	Medium Dense- Dense	Fine-medium SAND, some fine- medium gravel. No MGP impact.	SW			
					Gray	Very Dense	Fine SILTY SAND. No MGP impact.	SM			0.0
-75							End of boring at 75' bgs.				
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Discrete groundwater samples collected for PAH and BTEX at 34'-38' with drive point screen.
Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.

BORING NO. : DGP-211

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, east of MOB

GROUNDWATER: ~26' bgs.

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/21/08

DIA. 2-inch

DATE FINISHED: 10/21/08

WT.

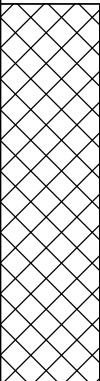
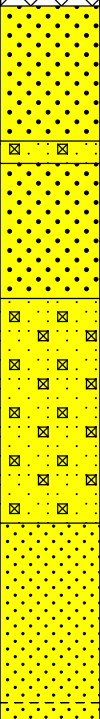
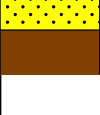
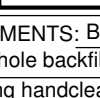
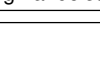
DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Brown	Loose-Medium Dense	FILL. Silt, some fine-medium sand, some clay, few subrounded gravel. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	85%	Tan	Medium Dense					
-10		3	-	78%	Brown	Loose-Medium Dense	Fine-coarse SAND, some fine gravel. No MGP impact.	SP		0.0	0.0
					Orange-Brown	Loose					
					Dark Brown	Medium Dense					
-15		4	-	68%	Light Brown	Loose-Medium Dense	Fine GRAVEL, some fine-medium sand.	GP		0.6	0.0
					Orange-Brown	Loose-Medium Dense					
					Light Brown	Loose-Medium Dense					
					Dark Brown	Loose-Medium Dense					
-20		5	-	68%	Light Brown	Loose-Medium Dense	Fine-coarse SAND, trace fine gravel, trace silt. No MGP impact.	SP		7.1	0.0
					Dark Brown	Loose-Medium Dense					
-25		6	-	70%	Brown	Loose-Medium Dense	Fine SAND, some silt, few fine-coarse	SW-SM		15.1	0-1
					Dark Brown	Loose-Medium Dense					

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-211

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
		7	-	97%	Light Brown	Loose	gravel.			25.3	Wet
						Medium Dense	Fine-coarse GRAVELLY SAND. Sheen and light NAPL coating, faint naphthalene-like odor.	SW		27.9	
-30		8	-	82%	Gray- Light Brown		Fine-medium SAND, few fine gravel, trace silt. Faint naphthalene-like odor, light NAPL coating.	SW-SM		32.7	
							Fine SILT, some fine-medium sand. Faint naphthalene-like odor.	ML		35.6	
-35										0.0	0.0
-40							Coarse GRAVEL, some silt and fine- medium sand. Faint naphthalene-like odor.	GW		0.0	0.0
-45							End of boring at 40' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-212				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~29' bgs										BORING LOCATION: LIRR ROW, east of MOB				
CAS.										GROUND ELEVATION: N/A				
SAMPLER														
CORE														
TUBE														
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/20/08					
				DIA.		2-inch			DATE FINISHED: 10/20/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	Loose	FILL. Fine-medium loamy sand, some fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	77%	Light Brown		Fine-coarse SAND, some-trace fine-medium gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	87%						0.0	0.0			
-15		4	-	N/A						0.0	0.0			
-20		5	-	N/A	Brown					0.0	0.0			
-25		6	-	47%	Light Brown	Medium Dense- Dense				0.0	Dry- Moist 0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-212														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	50%	Light Brown	Loose-Medium Dense	Fine-medium SAND. Moderate naphthalene-like odor, light brown NAPL staining.	SP		10	
							Fine SAND. Strong naphthalene-like odor, heavy NAPL staining. 3" to 6" lenses of MGP impact. Light NAPL coating at 31'. Moderate NAPL coating at 33', NAPL saturation from 34.5'-35'.			70	Wet 2.0
										10	
										400	4.0
										70	3.0
										600	8.0
										800	16
-35		8	-	52%	Light Gray-Tan		Fine SAND, trace-little silt. Slight naphthalene-like odor.	SM		40	0-3
										200	
										100	
							Fine-medium GRAVEL, some fine-coarse sand. Slight naphthalene-like odor.	GW		50	
-40		9	-	48%	Light Brown	Loose	Fine-coarse SAND. Faint naphthalene-like odor.	SW		25	
										17	5.0
										20	4.0
										25	8.0
										12	
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-213

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, East of MOB

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/20/08

DIA. 2-inch

DATE FINISHED: 10/20/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	Dense	FILL. Silt, some fine-medium sand, trace clay, trace gravel. Faint naphthalene-like odor.	FILL		0.1	Dry 0-1
-5		2	-	97%	Orange-Brown	Loose-Medium Dense	Fine-coarse SAND, some fine gravel. No MGP impact.	SW		0.1	0-1
-10		3	-	77%						0.2	0-1
-15		4	-	80%	Brown		Fine-coarse SAND, some fine-medium gravel, trace silt. Faint naphthalene-like odor.	SW		6.7	0-2
-20		5	-	78%			Fine-coarse SAND and fine GRAVEL. Light NAPL coating and brown staining, faint naphthalene-like odor.	SW-GW		0.9 0.6 0.4 0.6	Moist 0.0
-25		6	-	80%		Medium Dense- Dense	Fine-coarse SAND, few fine-medium	SW		140	Wet 1.0

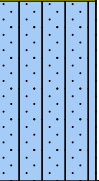
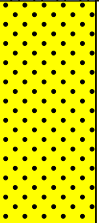


COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-213

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30	Gravel	7	-	97%	Light Brown-Brown		gravel. Brown staining and moderate NAPL coating, strong naphthalene-like odor.			350	
										385	2.0
										362	
										333	1.0
							Fine SAND, some silt. Brown NAPL saturation, strong naphthalene-like odor and sheen from 30'-34'. -clay layer, some silt and fine sand from 32'-33'.	SM		492	5.0
										247	0.0
										858	1.0
-35		8	-	97%	Light Brown		-no staining, faint naphthalene-like odor from 34'-38'.			23.7	
										1.2	0.0
										0.4	
-40		9	-	97%	Light Gray		Fine-coarse SAND, some fine-coarse gravel, trace silt. Faint naphthalene-like odor.	SW		24.7	
						Loose-Medium Dense				36.7	
										62	0.0
-45					Gray-Tan					0.0	
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-214				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~28.5' bgs										BORING LOCATION: LIRR ROW, East of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/17/08					
				DIA.		2-inch			DATE FINISHED: 10/17/08					
				WT.					DRILLER: M. Mede					
				FALL					GEOLOGIST: M. Dascoli					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	Loose-Medium Dense	FILL. Silt, some fine-medium sand. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	80%	Light Brown	Loose	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.0	0-1			
-10		3	-	77%	Orange-Brown		Medium-fine SAND, some fine-medium gravel, trace silt. No MGP impact.			0.0	0.0			
-15		4	-	53%		Medium Dense- Dense				0.0	0.0			
-20		5	-	45%						0.0	0.0			
-25		6	-	50%	Light Gray Light Brown	Medium Dense Loose	Medium-coarse SAND, some fine-medium gravel, trace silt. Medium-coarse SAND, some fine-medium gravel. Moderate naphthalene-like odor.			24.7	0-1			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-214														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	57%			Fine-medium SAND, some silt. Moderate naphthalene-like odor. -3" with some medium gravel at 28'. -2" lens of silt at 29.5'.	SM		5.2 16.2 52.7	Wet
					Light Gray	Medium Dense- Dense	Fine-medium SAND. Faint naphthalene-like odor.	SP		4.5 3.3	0-1 1.0
-35		8	-	57%	Gray	Dense- Very Dense	Medium-coarse SAND, little fine-medium gravel. Faint naphthalene-like odor.	SW		5.0 4.3 1.2	11 0-1
-40							Fine SAND, some silt, trace fine gravel. Faint naphthalene-like odor.	SW-SM			
-45							End of boring at 40' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-215

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: MOB Parking Lot

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 11/3/08

DIA. 2-inch

DATE FINISHED: 11/3/08

WT.

DRILLER: B. Rath

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING





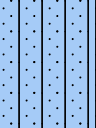



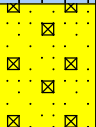

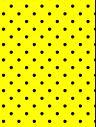

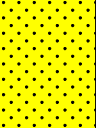
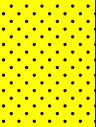



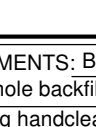
REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	Loose	FILL. Fine-medium sand, trace fine gravel. Faint petroleum odor from 4'-5'.	FILL		0.0	Dry 0.0
-5		2	-	75%	Tan-Gray		Fine-medium SAND, little well graded fine gravel. Faint petroleum odor.	SW		8.0	0.0
-10		3	-	62%	Orange-Gray		Fine-coarse SAND, trace-little fine-medium gravel. Black thin petroleum lenses from 10'-11', staining at 11'. Faint petroleum odor.			11	0.0
-15		4	--	60%	Light Brown-Gray		Fine-coarse SAND, little fine-medium gravel, light black petroleum staining and coating, heavy staining from 19'-20', strong petroleum odor.			27	
-20		5	-	63%	Black		Fine-medium SAND, trace fine-medium gravel. Black petroleum staining, strong petroleum odor.			30	
-25		6	-	52%	Tan	Medium Dense				22	
										460	1.0
										420	2.0
										400	
										440	3.0
										580	4.0
										400	
										375	5.0
										340	
										250	6.0
										275	5.0
										320	Wet 0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-215

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	52%	Gray		Fine-medium SAND. Brown, light to moderate NAPL staining and coating, strong naphthalene-like odor. -heavy NAPL coating from 29.5'-30'. Fine SAND, some silt. Heavy NAPL coating, NAPL saturation, strong naphthalene-like odor from 30'-31'. -heavy NAPL sheen, no staining, moderate naphthalene-like odor from 31'-33'. -faint naphthalene-like odor from 33'-35'.	SP		310	1.0
								SM		420	
-35		8	-	45%	Gray - Black	Dense	Fine-coarse SAND and GRAVEL. Faint naphthalene-like odor.	SP-GP		400	0.0
					Orange-Brown	Medium Dense				350	
-40		9	-	52%			Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		800	0.0
										270	
-45		10	-	40%			End of boring at 50' bgs.			70	0.0
										20	
-50							End of boring at 50' bgs.			40	0.0
										7.0	
-55							End of boring at 50' bgs.			5.0	0.0
										12	
							End of boring at 50' bgs.			0.0	0.0
										0.0	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-216

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW east, of MOB

GROUNDWATER: ~30' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/15/08

DIA. 2-inch

DATE FINISHED: 10/15/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	Loose	FILL. Fine loamy sand, trace fine gravel and organic matter. No MGP impact.	FILL		0.0	Moist 0.0
					Light Gray		Fine-coarse SAND, trace-little fine gravel. Slight petroleum odor.	SW		8.0	Dry
-5		2	-	72%	Light Brown	Loose-Medium Dense				5.0	0.0
										3.0	
										2.0	
										1.0	
-10		3	-	65%		Loose	Fine-coarse SAND, trace well graded fine gravel. No MGP impact.			0.0	0-1
										3.0	
										1.0	
-15		4	-	53%		Loose-Medium Dense	Fine-coarse SAND, little poorly graded fine-medium gravel. No MGP impact.	SP		0.0	0.0
							Fine-coarse SAND, little fine-medium gravel. Black staining, light coating, petroleum-like odor from 17'-20'.	SW		35	1.0
-20		5	-	50%			Fine-medium SAND, trace fine gravel. Slight petroleum-like odor.			70	0-2
							-Black petroleum staining and coating, moderate petroleum-like odor from 22'-25'.			100	Dry- Moist
										140	
										170	
										200	
-25		6	-	47%						100	Moist- Wet 0-1

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-216

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	60%			-black petroleum staining and coating, strong petroleum-like odor from 25'-30'.			150	
							Fine SAND. Brown NAPL staining, light NAPL coating and naphthalene-like odor.	SP		100	Wet 2-3
							Fine-coarse SAND, trace fine gravel. Black petroleum staining throughout, heavy petroleum coating and staining from 32'-33'.	SW		200	
-35		8	-	50%	Gray-Light Brown		Fine-medium SAND, trace well graded fine gravel. No MGP impact.			1.2	0-2
										1.6	
-40		9	-	50%	Light Brown		Fine-coarse SAND, trace fine-medium well graded gravel. No MGP impact.			0.0	0.0
-45		10	-	60%						0.0	0.0
											1.0
											2.0
											0.0
-50							Medium-coarse SANDY GRAVEL. No MGP impact.	GP			1.0
							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-217

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW east of MOB

GROUNDWATER: ~28' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/16/08

DIA. 2-inch

DATE FINISHED: 10/17/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS

0		1	-	100%	Brown	Dense	FILL. Fine loamy sand, some fine-coarse gravel. No MGP impact.	FILL		0.0	Moist 0.0
						Loose-Medium Dense	Fine-medium SAND, little fine-medium gravel. No MGP impact.	SP			Dry
-5		2	-	90%	Light Gray-Brown		Fine-coarse SAND, little well graded fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-10		3	-	70%	Light Brown	Loose				0.0	0.0
-15		4	-	70%						7.0	0.0
					Black		Fine-coarse SAND, little fine-medium gravel. Black petroleum staining and light coating, strong petroleum odor. Heavy black petroleum staining from 17'-17.5'.	SP		5.0	Moist- Dry
-20		5	-	67%	Light Brown					150	Dry 0.0
										160	
										170	
-25		6	-	65%		Loose-Medium	-intervals of heavy black petroleum staining from 23'-25'.			175	
										100	0-2

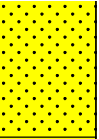
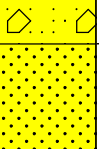
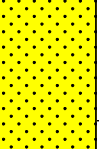
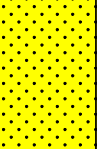
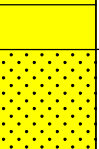
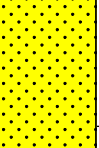
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-217

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	85%		Dense	-heavy black petroleum staining from 25'-30'.				Wet
							Fine-medium SAND, little fine gravel. Black to light brown petroleum staining, light coating and sheen, strong petroleum-like odor.			40	1-2
							Fine-medium SAND. Light NAPL sheen and slight naphthalene-like odor.			80	
										50	
										30	
-35		8	-	92%	Light Gray	Loose				20	
						Loose-Medium Dense	Fine-medium SAND. Faint naphthalene-like odor.			3.0	0.0
-40		9	-	88%	Light Gray-Light Brown		Fine-coarse SAND, trace fine gravel. Faint naphthalene-like odor.	SW		2.0	0-2
-45		10	-	97%	Gray	Loose				1.0	0-1
-50					Light Brown	Medium Dense	-No MGP impacts noted from 49'-50'.				
							End of boring at 58' bgs.				
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-218				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~21' bgs										BORING LOCATION: LIRR ROW, East of site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/14/08					
				DIA.		2-inch			DATE FINISHED: 10/14/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: M. Dascoli					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Medium Dense	FILL. Sand and silt, few fine-medium gravel and coal fragments, trace brick. Faint naphthalene-like odor from 1'-4'.	FILL		0.0	Dry 0.0			
					Dark Gray									
-5		2	-	80%	Brown		CLAYEY SILT, trace fine sand. Faint naphthalene-like odor.	ML		0.0	0.0			
						Loose	Fine-coarse SANDY GRAVEL. No MGP impact.	GP						
-10		3	-	72%	Light Brown	Loose-Medium Dense	Fine-coarse SAND, few fine-medium gravel. No MGP impact.	SW		0.0	0.0			
-15		4	-	65%	Brown		Fine-coarse SAND, trace fine gravel. Light NAPL coating from 16'-18.5'.			14.3	0-1			
											25.3	0.0		
										12.3				
										27.3				
-20		5	-	63%	Black					30.1				
										48				
							Fine-coarse SANDY GRAVEL, trace silt. Light NAPL coating.	GW		67	Wet 0-1			
										98				
-25		6	-	65%	Gray	Loose	Fine-coarse SAND, trace fine-medium	SW		110				
										93				
										63	1.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-218														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	78%	Black	Medium Dense	gravel. Light NAPL coating and naphthalene-like odor from 25'-26'.			70	0-1
						Loose	Fine-medium SANDY GRAVEL. Light NAPL coating and staining.			32.3	0.0
										67.9	1.0
								GW		120	
-35		8	-	97%	Gray	Medium Dense	Medium-coarse SAND, some-trace fine gravel. Brown NAPL light-moderate coating from 30'-32.5'.	SW		72	
						Loose-Medium Dense	-moderate brown NAPL coating from 33.5'-35'. -light brown light NAPL coating from 35'-36.5'.			70.2	
										8.4	0.0
										1.3	
-40		9	-	97%	Light Gray-Brown	Light Brown	SILT, some fine-medium sand, trace fine gravel. Light NAPL sheen and staining.	ML		1.0	
							Fine-medium SAND, trace fine-medium gravel. Light NAPL coating and light staining, moderate naphthalene-like odor.			0.8	
								SW		80.4	0-1
										42.5	
-45		10	-	97%	Light Brown	Black	-fine-coarse gravelly sand from 42.5'-43'. -light-heavy NAPL coating and staining from 43'-44.5', black NAPL saturation from 44'-45'.			39.7	
							-Faint naphthalene-like odor and sheen from 45'-49'.			13.1	
										66.1	
										4.6	0-1
-50		11	-	97%			Fine-medium SAND, some medium-coarse gravel. No MGP impacts.			3.2	
										0.7	
										0.0	0.0
-55							Fine-medium SANDY GRAVEL. No MGP impact.	GP			
							Fine-coarse SAND, trace medium-fine gravel. No MGP impact.				
								SW			
							End of boring at 55' bgs.				

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-219

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, east of site

GROUNDWATER: ~25' bgs.

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/15/08

DIA. 2-inch

DATE FINISHED: 10/15/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Brown	Medium Dense- Dense	FILL. Fine-medium sand, some silt and fine-medium gravel, some coal fragments. No MGP impact.	FILL		0.0	Dry 0.0
					Black					2.0	0-1
					Dark Brown		SILT, some clay.	ML		1.5	0.0
-5		2	-	75%	Brown					5.2	
					Light Brown	Loose- Medium Dense	Fine-medium GRAVELLY SAND. No MGP impacts.	SW		1.2	
										4.5	0.0
-10		3	-	97%							
					Orange- Brown	Loose	Fine-coarse SAND, some fine- medium gravel. No MGP impact.			8.5	0-1
										11.3	0.0
-15		4	-	73%	Brown	Loose- Medium Dense	Fine-medium SAND, some fine- medium gravel and silt. Slight NAPL staining.	SW-SM		66.2	
										11.0	
							-light NAPL red-brown coating from 18'-25', moderate naphthalene-like odor.			7.5	
-20		5	-	68%	Light Brown					15.2	0-1
										37.5	1.0
					Brown		Fine-medium GRAVELLY SAND. Light NAPL coating, staining, moderate naphthalene-like odor.	SW		51.5	Moist
-25		6	-	60%			Fine-coarse SANDY GRAVEL.	GP		62.3	Wet

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-219

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30	[Patterned Yellow Box]	7	-	77%	Light Brown		Moderate to heavy naphthalene-like odor, NAPL coating and staining.		[Teal Box]	39.2	1.0
-35	[Patterned Yellow Box]	8	-	68%	Orange		Fine-coarse SAND, some fine-medium gravel. Dark brown NAPL staining and moderate-heavy NAPL coating.	SW	[Teal Box]	54.3	1.0
-40	[Patterned Yellow Box]	9	-	97%	Gray- Light Brown		Fine-medium SAND, trace fine gravel. No MGP impacts.		[Teal Box]	4.3	0-1
-45	[Patterned Yellow Box]						Fine-coarse SAND, trace fine-medium gravel. No MGP impacts.		[Teal Box]	48.7	1.0
-50	[Patterned Yellow Box]						End of boring at 58' bgs.		[Teal Box]	132	
-55	[Patterned Yellow Box]								[Teal Box]	4.9	2.0
	[Patterned Yellow Box]								[Teal Box]	5.8	1.0
	[Patterned Yellow Box]								[Teal Box]	3.5	1.0
	[Patterned Yellow Box]								[Teal Box]	3.6	1.0
	[Patterned Yellow Box]								[Teal Box]	1.1	1-2
	[Patterned Yellow Box]								[Teal Box]	0.7	0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Borehole backfilled with cement-bentonite grout to grade.
 Boring handcleared from 0'-5'.

BORING NO. : DGP-220

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, East of site

GROUNDWATER: ~29' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/21/08

DIA. 2-inch

DATE FINISHED: 10/21/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: J. Harshman

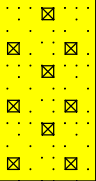

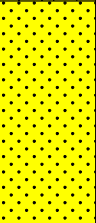

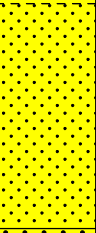

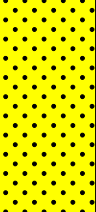



* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Black	Loose	FILL. Fine silty, loamy sand, trace coal fragments. Petroleum odor.	FILL		3.0	Moist 0-2
										5.0	
-5		2	-	67%	Brown-Gray	Soft	SILT. Light black petroleum staining, slight petroleum-like odor.	ML		3.0	2.0
										15	
						Loose	Fine-coarse SAND, trace-little fine gravel. Black staining from 7'-9'. Petroleum-like odor throughout.	SW		30	Moist- Dry
										20	
-10		3	-	63%			Fine-medium SAND and GRAVEL, lightly stained, moderate petroleum-like odor.	SP-GP			3.0
											2.0
										22	1.0
										30	2.0
-15		4	-	60%	Light Brown		Fine-medium SAND, strong petroleum-like odor and light staining.	SP		80	Dry 1.0
										70	
										106	
										143	
										192	
-20		5	-	67%			-slight petroleum-like odor from 20'-21'.			117	2.0
					Brown-Orange		-brown staining and light NAPL coating, strong naphthalene-like odor from 21'-25'.			190	
										220	
										160	4.0
										162	3.0
-25		6	-	45%	Orange	Medium Dense	Fine-medium SAND and GRAVEL.	SP-GP		12	1.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-220

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	52%			Black NAPL staining at 25'. Slight naphthalene-like odor throughout.	SW		2.0	0.0
										1.0	
										0.0	
		8	-	35%	Brown-Orange	Loose	Fine-medium SAND, little fine gravel. Moderate-heavy NAPL coating and black staining from 30'-32'. Trace sheen from 32'-35'. Naphthalene-like odor throughout.			80	0.0
										190	
										50	
-35		9	-	38%	Light Brown	Loose-Medium Dense	Fine-coarse SAND, trace fine gravel. No MGP impact.			30	
										25	
										0.0	0-2
-40						Loose	Fine-medium SAND. No MGP impact.	SP		0.0	0.0
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-221

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, east of Site

GROUNDWATER: ~24' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/23/08

DIA. 2-inch

DATE FINISHED: 10/23/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Black	Very Dense	FILL. Coal with silty sand, trace mortar. Little black staining, slight petroleum odor from 2'-3'.	FILL		0.0	Dry 0-1
					Dark Brown		PEAT and organic material. No MGP impact.	PEAT		2.0	
					Brown	Stiff	SILT. No MGP impact.	ML		1.0	
-5		2	-	73%		Medium Dense- Dense	Fine-coarse SAND and GRAVEL, poorly sorted. Slight petroleum-like odor throughout. Staining from 5'-6'.	SP-GP		0.0	
										5.0	Moist 0-1 Dry
										6.0	
										5.0	
										4.0	
-10		3	-	70%		Loose	-brown staining and petroleum-like odor from 10'-11'. -slight petroleum-like odor from 11'-12'.			5.0	0-1
							Fine-medium SAND, little-some fine-medium gravel. Moderate petroleum-like odor, dark brown staining and moderate coating, slightly tarry.	SW		3.0	
										6.0	
										7.0	
-15		4	-	60%			Fine-coarse SAND, trace fine gravel. Petroleum-like odor, heavy petroleum-like staining and coating.			35	Moist- Dry 0-2
										40	
										70	
-20		5	-	68%						100	0-1
										10	
							Fine-coarse SAND, some fine-medium gravel. No MGP impact.			15	Wet
					Light Brown-Orange					110	
-25		6	-	68%			-heavy brown staining and moderate NAPL coating, moderate naphthalene-like odor from 24.5'-26'.			100	0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

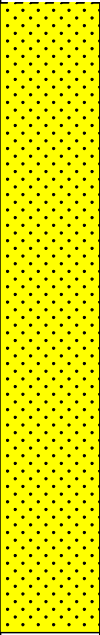
BORING NO. : DGP-221

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	50%		Loose-Medium Dense	Fine-coarse SAND, little-some fine-medium gravel. No MGP impact.			5.0 2.0 1.0 0.5 0.0	0.0
-35		8	-	80%	Light Brown	Loose	-trace cobble from 35'-40'.			2.0 4.0 2.0	0-1
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-222				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~28' bgs										BORING LOCATION: LIRR ROW, east of Site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 10/21/08				
				DIA.		2-inch				DATE FINISHED: 10/21/08				
				WT.						DRILLER: M. Meade				
				FALL						GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Medium Dense	FILL. Fine loamy silty sand, trace organic matter, trace fine gravel. No MGP impact.	FILL		0.0	Moist- Dry 0.0			
							PEAT and organic material. No MGP impact.	PEAT						
-5		2	-	75%			Fine SILTY SAND. No MGP impact.	SM		0.0	0.0			
						Light Brown	Loose	Fine-coarse SAND, little-some fine-coarse gravel. No MGP impact.	SW			Dry		
-10		3	-	70%		Light Brown-Orange				0.0	0.0			
-15		4	-	65%						0.0	0-1			
-20	5	-	65%						2.0	3.0				
									0.0	2.0				
										1.0				
-25	6	-	53%		Brown-Orange	Medium Dense			0.0	0-1				
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-222														

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	47%		Loose-Medium Dense	Fine-coarse SAND, little poorly graded fine-medium gravel. No MGP impact.	SP		0.0	0-1
-35		8	-	50%						0.0	0-1
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-223				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: LIRR ROW, east of Site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 10/24/08				
				DIA.		2-inch				DATE FINISHED: 10/24/08				
				WT.						DRILLER: K. Kegel				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Dense	FILL. Asphalt from 0'-0.25', sand with silt, some asphalt, coal fragments, and gravel. No MGP impacts.	FILL		0.0	Dry 0.0			
-5		2	-	93%	Light Brown	Medium Dense- Dense Loose	SILT, some fine-medium sand, trace fine gravel.	ML	0.0	0.0				
					Brown		Fine-medium SANDY GRAVEL. No MGP impacts.	GW						
-10		3	-	77%	Orange-Brown	Medium Dense- Dense	Fine-medium SANDY GRAVEL, trace silt, poorly sorted. No MGP impacts.	GP	0.2	0.0				
					Brown		Fine-coarse SAND, some fine-medium gravel, trace silt.	SW						
-15		4	-	68%	Light Brown	Loose			0.1	0.0				
	Brown													
-20	5	-	65%		Loose-Medium Dense			0.1	0.0					
				Orange-Brown	Loose									
-25	6	-	62%		Dense	Fine-medium SANDY GRAVEL. No MGP impact.	GW	0.2	1.1	Wet 0-1				
				Medium Dense- Dense	-faint naphthalene-like odor from 25'-30'.									

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-223

URS Corporation

TEST BORING LOG

BORING NO. : DGP-223

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-223

BORING NO. : DGP-224

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, east of Site

GROUNDWATER: ~29' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/22/08

DIA. 2-inch

DATE FINISHED: 10/22/08

WT.

DRILLER: M. Meade

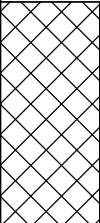
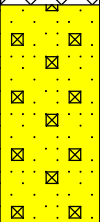
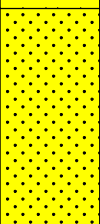
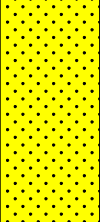
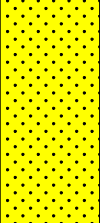

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	Loose	FILL. Loamy, fine silty sand. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	55%	Brown-Light Brown	Medium Dense- Dense	Fine-coarse SAND and GRAVEL. No MGP impact.	SP-GP		0.0	0.0
-10		3	-	68%	Light Brown	Loose	Fine-coarse SAND, little-some fine-medium gravel, well graded. No MGP impact.	SW		0.0	0.0
-15		4	-	58%	Light Brown-Orange					0.0	0-1
-20		5	-	67%						0.2	0-1
-25		6	-	53%		Medium Dense- Dense	Fine-medium SAND and GRAVEL.	SW-GW		0.0	0-1

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-224

URS Corporation

TEST BORING LOG

BORING NO. : DGP-224

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							No MGP impact.				
-30		7	-	47%	Light Brown- Gray	Medium Dense	Fine-coarse SAND, little fine-medium gravel, well graded.	SW		0.0	Wet 0-1
-35		8	-	47%	Light Brown- Orange	Loose- Medium Dense	Fine-coarse SAND, little poorly graded fine-coarse gravel. No MGP impact.	SP		0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-224

BORING NO. : DGP-226

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW, east of Site

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE

Macrocore

DATE STARTED: 10/22/08

DIA.

2-inch

DATE FINISHED: 10/22/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO. BLOW
COUNT

REC%
RQD%

COLOR

SOIL
CONSISTENCY
ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

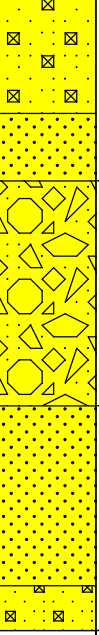
PID

MOISTURE
HCN

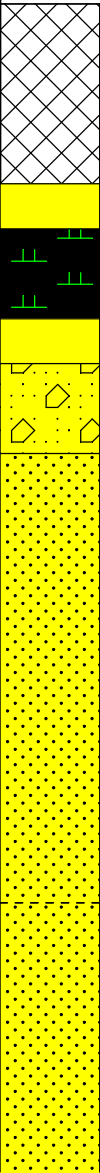
0		1	-	100%	Dark Brown	Stiff	FILL. Clay with some sand, some asphalt, trace wood fragments. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	97%	Brown		CLAY. No MGP impact.	CL		0.0	0.0
-10		3	-	80%		Loose-Medium Dense	Fine-medium SAND, some fine-coarse gravel, trace silt. No MGP impact.	SW		0.0	0.0
-15		4	-	73%		Medium Dense				0.0	0.0
-20		5	-	80%	Orange-Brown	Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.			0.0	0-1
-25		6	-	78%			Fine-medium SAND, some fine-coarse gravel, trace silt. No MGP impact.			0.0	0-1
							Fine-medium GRAVELLY SAND. No	SP-GP		0.0	Wet 0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-226

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	68%	Brown	Loose	MGP impact. Fine-coarse SAND, trace fine gravel. Fine-coarse GRAVEL and SAND. No MGP impact.	SW		0.0	0.0
-35		8	-	97%	Light Brown	Loose-Medium Dense	Fine-coarse SAND, trace fine gravel.	SW		0.0	0.0
-40							Fine-medium SANDY GRAVEL.	GP			
-45							End of boring at 40' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-228				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~29' bgs										BORING LOCATION: LIRR ROW, east of Site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/22/08					
				DIA.		2-inch			DATE FINISHED: 10/22/08					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Medium Dense	FILL. Fine loamy silty sand, trace coal. No MGP impact.	FILL		0.0	Moist 0.0			
-5		2	-	73%	Brown	Soft	SILT. No MGP impact.	ML	0.0	Dry 0.0				
					Black	Stiff	PEAT. No MGP impact.	PEAT						
					Brown	Loose	SILT. No MGP impact.	ML						
							Fine-coarse SAND and GRAVEL.	GW						
-10		3	-	70%	Light Brown-Orange	Loose-Medium Dense	Fine-coarse SAND, some fine-coarse gravel. No MGP impact.	SW	0.0	0.0				
-15	4	-	70%					0.0	0.0					
-20	5	-	60%		Medium Dense	Fine-coarse SAND, trace-little well graded fine-medium gravel. No MGP impact.		0.0	0.0					
-25	6	-	58%		Loose-Medium			0.0	0.0					
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-228														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
						Dense					
-30		7	-	48%	Orange-Brown	Dense	Fine-coarse SAND and GRAVEL, poorly graded.	SW-GW		0.0	Wet 0.0
-35		8	-	47%	Light Brown-Orange	Medium Dense	Fine-coarse SAND, little fine-medium well graded gravel. No MGP impact.	SW		0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-231				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: GC Park				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/5/08					
				DIA.		2-inch			DATE FINISHED: 11/5/08					
				WT.					DRILLER: B. Rath					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose-Medium Dense	FILL. Loamy fine sand, little slag material. No MGP impacts noted.	FILL		0.0	Dry 0.0			
-5		2	-	55%	Light Brown	Loose	Fine-coarse SAND, little fine-coarse gravel. No MGP impact	SW		0.0	0.0			
-10		3	-	68%	Orange-Brown	Loose-Medium Dense				0.0	0.0			
-15		4	-	72%	Light Brown					0.8	0-1			
-20		5	-	58%	Orange-Brown		Fine-coarse SAND, trace fine gravel.	SW		0.0	0.0			
-25		6	-	58%			-light, brown NAPL staining and faint naphthalene-like odor from 24'-25'. Fine-medium SAND. Light, brown NAPL staining, faint naphthalene-like	SP		2.0	4.0			
										72	Moist 2.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-231														

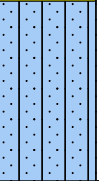
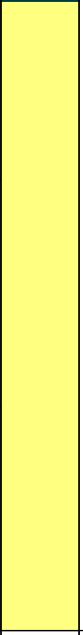
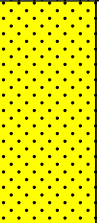
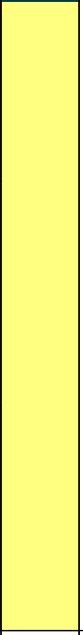
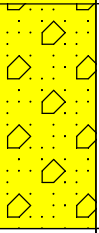
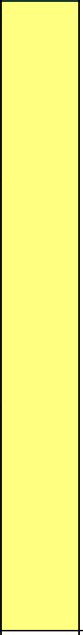
BORING NO. : DGP-231

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	52%	Light Brown	Medium Dense	odor.	SM		16	Wet 1.0
							Fine SILTY SAND. Faint naphthalene-like odor, no staining.				
-35		8	-	55%	Light Brown	Medium Dense	Fine-medium SAND, trace-little fine- coarse gravel. Faint naphthalene-like odor.	SW		1.0	0.0
-40		8	-	55%	Light Brown	Medium Dense	Fine-coarse SAND and GRAVEL, trace cobble. Faint naphthalene-like odor.	GW		1.9	0.0
-45							End of boring at 40' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-231

BORING NO. : DGP-233

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: GC Park

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 11/4/08

DIA.

2-inch

DATE FINISHED: 11/5/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

0

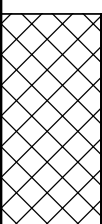
-5

-10

-15

-20

-25



1

-

100%

Brown

Medium
Dense- Dense

FILL. Fine-coarse sand, some fine-coarse gravel, trace concrete. No MGP impacts.

FILL

0.0

Dry
0.0

2

-

97%

Light
Brown

Loose

Fine-coarse SAND, some-little fine-coarse gravel. No MGP impacts.

SW

0.0

0.0

3

-

72%

0.0

0.0

4

-

70%

Orange-
Brown

Dense

0.0

0.0

5

-

N/A

Light
Brown

Loose

Fine-coarse SAND, trace fine-coarse gravel. Faint naphthalene-like odor.

SW

0.0

Wet
0-1

6

-

N/A

Light
Brown

Dense

-moderate naphthalene-like odor, brown staining and 0.5' to 1' layers of moderate-heavy NAPL coating from 22'-25.5'.

SM

78

0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-233

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 3

CLIENT: National Grid

JOB NO. :11175065.00011


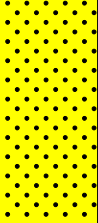

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COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-233

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%	Light Brown	Loose-Medium Dense	Fine-coarse GRAVEL, little-some cobbles. No MGP impact.	GW		56	
							Fine-medium SAND, trace coarse gravel. Faint naphthalene-like odor.	SP		58	
										37	0-1
										45	
										58	
-65		14	-	N/A		Medium Dense	Fine SAND, little silt, trace clay. Faint naphthalene-like odor.	SW-SM		5.1	0-1
										7.6	
-70							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation

TEST BORING LOG

BORING NO. : DGP-234

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: GC Park

GROUNDWATER: ~25.5' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore
------	------	-------	------	------	--	-----------

DATE STARTED: 11/6/08

				DIA.		2-inch
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DATE FINISHED: 11/6/08

				WT.		
--	--	--	--	-----	--	--

DRILLER: B. Rath

				FALL		
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GEOLOGIST: J. Harshman

				* POCKET PENETROMETER READING
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REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE	
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN
0		1	-	100%	Dark Brown	Loose	TOPSOIL.	Topsoil		0.0	Dry 0.0	
							LOAMY fine SAND, some fine-medium gravel, trace tree roots.	SM				
-5		2	-	53%	Light Brown		Fine-coarse SAND, some fine-medium gravel	SW		0.0	0.0	
-10		3	-	53%	Orange-Brown					0.0	0.0	
-15		4	-	60%	Light Brown					0.0	0.0	
-20		5	-	55%	Brown	Loose-Medium Dense	Fine-coarse SAND, trace fine gravel. Faint naphthalene-like odor, sheen.			0.1 0.0 0.1	Moist 3.0 1.0 2.0	
							Fine-medium SAND, trace fine gravel. Brown staining, light NAPL coating, faint- moderate naphthalene-like odor.			15 16	1.0 2.0	
-25		6	-	58%	Light Brown	Medium Dense- Dense		SP		17	Wet	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-234

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	52%	Light Brown	Medium Dense	Fine SAND. Faint naphthalene-like odor.	SW		3.0	1.0
										4.0	2.0
-35		8	-	47%			Fine-coarse SAND, trace fine-medium gravel. Faint naphthalene-like odor.			7.0	1.0
										6.0	3.0
										5.0	
										8.0	
-40		9	-	43%		Loose- Medium Dense	Fine-coarse SAND, little fine-coarse gravel. Faint naphthalene-like odor.			2.0	0.0
										0.0	
-45		10	-	43%	Light Brown- Orange	Loose	-light NAPL sheen from 39'-40'.				2.0
											14
-50		11	-	45%		Loose- Medium Dense	Fine-coarse SAND, trace-little fine-medium gravel. No MGP impact.			10	3.0
										0.0	0.0
-55							End of boring at 55' bgs.				

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation											TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York											BORING NO. : DGP-235				
CLIENT: National Grid											SHEET: 1 OF 2				
BORING CONTRACTOR: F + N											JOB NO. : 11175065.00011				
GROUNDWATER: ~20' bgs											BORING LOCATION: GC Park				
CAS. SAMPLER CORE TUBE											GROUND ELEVATION: N/A				
DATE TIME LEVEL TYPE TYPE Macrocore											DATE STARTED: 11/10/08				
DIA. 2-inch											DATE FINISHED: 11/10/08				
WT.											DRILLER: M. Meade				
FALL											GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING											REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE				
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN			
0		1	-	100%	Dark Brown	Medium Dense	TOPSOIL. No MGP impact. Fine-medium LOAMY SAND, trace organic material, trace fine gravel. No MGP impact.	Topsoil SM		0.0	Dry 0.0				
-5		2	-	88%	Brown-Orange	Medium Dense	Fine-coarse SAND, some well graded fine-coarse gravel. No MGP impact.	SW		0.0	0.0.				
-10		3	-	85%											
-15		4	-	N/A								Loose			
-20		5	-	45%	Light Brown	Loose-Medium	Fine-coarse SAND, trace poorly graded fine-medium gravel. No MGP impact.	SP		0.0	Wet 0.0				
-25		6	-	47%								Fine-medium SAND. No MGP impact.	SM	0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

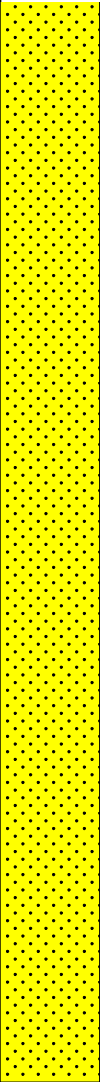
Boring handcleared from 0'-5'.

BORING NO. : DGP-235

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
						Dense					
-30		7	-	45%			Fine-coarse SAND, trace poorly graded fine-medium gravel. No MGP impact.	SP		0.0	0-2 0.0
-35		8	-	47%	Brown-Orange					0.0	0.0
-40		9	-	37%	Light Brown	Medium Dense	Fine-coarse SAND, trace well graded fine-medium gravel. No MGP impact. -trace clay at 43'.	SW		0.0	0.0
-45		10	-	N/A		Loose	Fine-coarse SAND. No MGP impact.	SP		0.0	0.0
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-236				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~20' bgs										BORING LOCATION: GC Park				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/4/08					
				DIA.		2-inch			DATE FINISHED: 11/4/08					
				WT.					DRILLER: B. Rath					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Medium Dense- Dense	FILL. Fine loamy silty sand, little fine gravel, trace mortar. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	70%	Light Brown-Orange	Medium Dense	Fine-coarse SAND, little fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	62%						0.0	0.0			
-15		4	-	63%		Loose-Medium Dense	Fine-medium SAND, trace fine gravel. No MGP impact.	SP		0.0	Moist 0.0			
-20		5	-	60%		Medium Dense				0.0	Wet 0.0			
-25		6	-	53%	Loose-Medium Dense	Fine SAND, some silt, trace coarse gravel. No MGP impact.	SM							
							Fine-coarse SAND, trace well graded	SW		0.0	0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-236														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	53%	Light Brown	Medium Dense	fine-medium gravel. No MGP impact.			0.0	0.0
-35		8	-	50%							0.0
-40		9	-	50%							0.0
-45		10	-	47%							0.0
-50					Orange- Brown		End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

<div>URS Corporation</div>										TEST BORING LOG				
										BORING NO. :		DGP-237		
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 2		
CLIENT: National Grid										JOB NO. :		11175065.00011		
BORING CONTRACTOR: F + N										BORING LOCATION:		GC Park		
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION: N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/4/08					
				DIA.		2-inch			DATE FINISHED: 11/4/08					
				WT.					DRILLER: B. Rath					
				FALL					GEOLOGIST: J. Harshman					
					* POCKET PENETROMETER READING				REVIEWED BY: K. Connare					
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	Loose-Medium Dense	TOPSOIL. No MGP impact. Fine-coarse LOAMY SAND, little fine gravel. No MGP impact.	Topsoil SM		0.0	Dry 0.0			
-5		2	-	30%	Orange-Brown	Loose	Fine-coarse SAND, some- trace fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	43%										
-15		4	-	63%										
-20		5	-	60%	Orange-Light Brown	Loose-Medium Dense				0.0	Moist 0.0			
-25		6	-	53%										

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

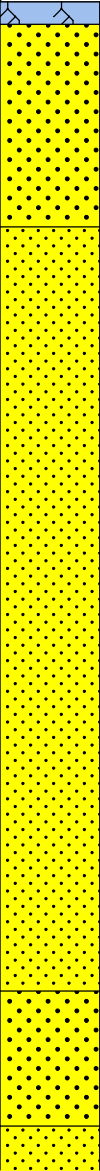

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-237

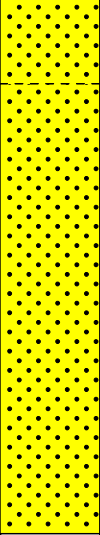
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	52%						0.0	0.0
-35		8	-	50%						0.0	0.0
-40		9	-	48%	Light Brown					0.0	0.0
-45		10	-	50%		Medium Dense				0.0	0.0
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

<div>URS Corporation</div>										TEST BORING LOG					
										BORING NO. :		DGP-238			
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 3			
CLIENT: National Grid										JOB NO. :		11175065.00011			
BORING CONTRACTOR: F + N										BORING LOCATION:		GC Park			
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION: N/A						
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:		10/27/08				
				DIA.		2-inch			DATE FINISHED:		10/27/08				
				WT.					DRILLER:		M. Meade				
				FALL					GEOLOGIST:		J. Harshman				
					* POCKET PENETROMETER READING				REVIEWED BY:		K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE				
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN			
0		1	-	100%	Dark Brown	Loose-Medium Dense	TOPSOIL. No MGP impact. Fine-coarse loamy SAND, little fine-medium gravel, trace organic material. No MGP impact.	Topsoil SP		0.0	Dry 0.0				
-5		2	-	97%	Light Gray-Light Brown		Fine-coarse SAND, little-some fine-coarse gravel, poorly graded. No MGP impact.	SW		0.0	0.0				
-10		3	-	80%	Orange-Brown	Loose				0.0	0.0				
-15		4	-	72%	Light Brown					0.0	0.0				
-20		5	-	68%		Medium Dense				0.0	Moist 0.0				
-25		6	-	93%				Fine-medium SAND. Brown staining, light-moderate NAPL coating, sheen and naphthalene-like odor.	SP		0.4	1.0			
							Fine-coarse SAND, little fine-coarse	SW	15		Wet 3.0				
									50	1.0					
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.															
										BORING NO. : DGP-238					

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	92%	Orange-Brown	Loose	gravel. Brown staining, sheen, light NAPL coating and naphthalene-like odor.			40	0.0
							Fine-coarse SAND, trace fine gravel. No MGP impact.			2.0	
										0.0	
-35		8	-	92%	Orange-Brown	Medium Dense	Fine-coarse SAND, trace-little fine-medium gravel. Moderate NAPL coating from 34'-34.25', black staining, and naphthalene-like odor.			6.0	0.0
										0.0	
										2.0	
-40		9	-	97%	Black	Loose-Medium Dense	-seams of light to moderate NAPL coating, black staining, sheen, and naphthalene-like odor from 38'-40'.	SP		30	0.0
							Fine-medium SAND. Several seams of moderate NAPL coating from 44'-44.5', sheen, and naphthalene-like odor.			20	
										10	
-45		10	-	97%	Light Brown	Loose				7.0	0.0
							-NAPL staining from 45'-49'. Trace NAPL blebs, slight naphthalene-like odor, heavy sheen.			8.0	
										20	
-50		11	-	97%	Light Gray	Loose-Medium Dense	-no staining from 49'-50'.	SW		3.0	0.0
							Fine-coarse SAND, trace fine gravel. No MGP impact.			0.0	
-55		12	-	97%	Light Gray		Fine SAND. No MGP impact.	SP		0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%		Loose	Fine-medium SAND. No MGP impact.			0.0	0.0
-65		14	-	97%	Light Brown- Yellow	Loose- Medium Dense				0.0	0.0
-70							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-239

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: GC Park

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 11/10/08

DIA. 2-inch

DATE FINISHED: 11/10/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	N/A	Fine-medium SAND and SILT, some fine-medium gravel. No MGP impact.	SM		0.0	Dry 0.0
-5		2	-	97%	Orange-Brown		Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-10		3	-	97%						0.0	0.0
-15		4	-	78%						4.2	1.0
										4.5	
										6.7	0-1
										15	
							Fine-medium GRAVEL, trace fine sand. No MGP impact.	GP			
					Light Brown		Fine SAND, trace fine gravel. No MGP impact.	SP			Moist
-20		5	-	67%	Orange-Brown		Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.	SW		1.0	Wet 0-1
-25		6	-	97%						1.0	0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-239

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%	Brown					1.0	0-1
-35		8	-	97%	Orange- Brown		Fine-coarse GRAVEL, some fine- medium sand.			1.0	0-1
								GW			
-40		9	-	97%			Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		1.0	0-1
-45		10	-	93%	Brown					0.0	0-1
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-240

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: GC Park

GROUNDWATER: ~19.5' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 11/6/08

DIA. 2-inch

DATE FINISHED: 11/7/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

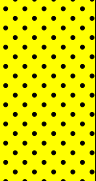

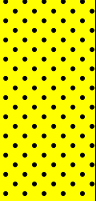

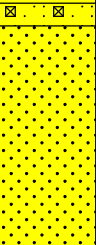

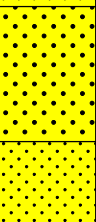

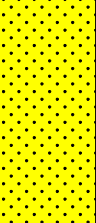

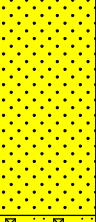

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

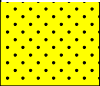


DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Black	N/A	FILL. Fine-medium sand, some silt, little fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	97%	Orange-Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0
-10		3	-	67%	Light Brown					0.0	0-1
-15		4	-	63%	Orange-Brown		Coarse GRAVEL, some fine-coarse sand. No MGP impact.	GP		0.0	0-1
-20		5	-	72%	Dark Brown		Fine-medium SAND, some-little fine-medium gravel. Faint naphthalene-like odor.			0.0	Wet 0-1
-25		6	-	97%	Light Brown		-dark brown light NAPL coating and sheen from 22.5'-23'.			8.8	
							Fine SAND. Heavy brown NAPL coating and sheen.	SP		7.2	
										124	4.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-240

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	90%			-NAPL saturation, strong naphthalene-like odor from 25'-27'.			324	6.0
										179	2.0
										90.5	1.0
										71.5	
										16.7	1.0
-35		8	-	97%			-faint naphthalene-like odor from 30'-34.5'.			20.9	
										13.5	
										16.5	
							Fine-coarse GRAVEL, some fine-medium sand. No MGP impact noted.			8.1	
										36.1	0.0
-40		9	-	97%	Brown		Fine-coarse SAND, little fine-medium gravel. Faint naphthalene-like odor.	GP SW		55.8	
										68.4	
										72.3	
										75.1	
							Fine-coarse SAND. Seams of dark brown staining and light-moderate NAPL coating, strong naphthalene-like odor.			105	1.0
-45		10	-	97%	Light Brown			SW		102	2.0
										146	3.0
							Fine-coarse SAND, trace fine-coarse gravel. Faint naphthalene-like odor.			63.7	2.0
										15.2	
										0.0	0-1
-50		11	-	97%						10.0	
										11.8	
										4.3	0.0
-55		12	-	97%			Fine-medium GRAVEL, little fine-medium sand. No MGP impact noted.	GP SW		15.3	
										3.3	0.0
							Fine-medium SAND, trace fine gravel. No MGP impact noted.			3.8	
										4.0	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%	Light Brown- Gray		Fine-medium SAND.	SP		5.5	0.0
										1.8	
										1.3	
										1.1	
-65		14	-	97%	Orange- Brown		-Faint naphthalene-like odor from 65'- 69.5'.			7.9	0.0
										8.3	
										9.1	
										10.5	
-70					White		CLAY. Faint naphthalene-like odor.	CL		11.5	
							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-241

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Adjacent to GC Park

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE

Macrocore

DATE STARTED: 11/21/08

DIA.

2-inch

DATE FINISHED: 11/26/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

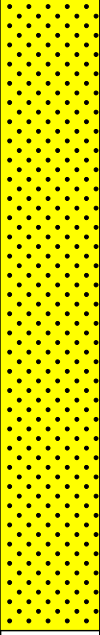
REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	N/A	FILL. Fine-medium sand, some fine-coarse gravel and silt. No MGP impact.	FILL		0.0	Dry 0.0
							Fine SANDY SILT, trace fine-coarse gravel. No MGP impact.	ML			
-5		2	-	100%	Orange-Brown		Fine-medium SAND and GRAVEL, few silt.	SW-SM		0.0	0.0
							Fine-coarse SAND, some fine-coarse gravel, trace silt and cobble. No MGP impact.	SW			Moist
-10		3	-	73%						0.0	Dry 0.0
-15		4	-	78%	Light Brown		Fine-medium SAND, trace-little fine-medium gravel. No MGP impact.			0.0	0.0
-20		5	-	68%	Orange-Brown					0.0	Wet 0.0
							Fine-coarse GRAVEL, few medium-coarse sand. No MGP impact.	GP			
-25		6	-	97%			Fine SAND, few silt, trace fine gravel.	SM			
							Fine-coarse SAND, trace fine-medium	SP		0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-241

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%			gravel. No MGP impact.			0.0	0.0
-35		8	-	97%						0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

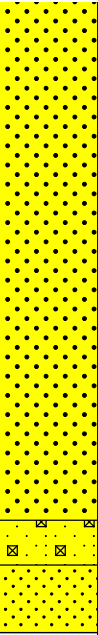
<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-242				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~18' bgs										BORING LOCATION: Near GC Park, north of Reg. station				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/24/08					
				DIA.		2-inch			DATE FINISHED: 11/24/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: M. Dascoli					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	N/A	N/A	No recovery. Preclearing was performed on 11/7/08. No soil data recorded.	NONE		N/A				
-5		2	-	7%	Dark Brown		Fine-coarse SAND, some silt, some fine-medium gravel. No MGP impact.	SM		5.2	Dry 0-1			
-10		3	-	70%	Brown		Fine-coarse SAND, some fine-coarse gravel, trace silt. No MGP impact.	SW		0.0	0.0			
-15		4	-	65%	Light Brown Brown Orange-Brown					0.0	0.0			
-20		5	-	73%	Brown		Fine-coarse SAND, trace-little fine-medium gravel. No MGP impact.	SP		0.3 2.4 0.0	Wet 0.0			
-25		6	-	88%	Orange-Brown					0.0	0.0			
<div>COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.</div>														
BORING NO. : DGP-242														

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	90%						0.0	0.0
-35		8	-	97%						0.0	0.0
-40							Fine-coarse SAND and GRAVEL. No MGP impact.	GP			
							Fine-medium SAND, some silt, trace fine-medium gravel. No MGP impact.	SW			
							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-243

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: National Grid Gas Reg. Station

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 11/21/08

DIA.

2-inch

DATE FINISHED: 11/25/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE

NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

0

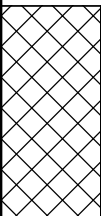
-5

-10

-15

-20

-25



1

-

100%

Dark Brown

N/A

FILL. Sand and gravel, some glass, brick, asphalt, and concrete, some clay, silt and wood chips. Faint petroleum-like odor from 3'-5'.

FILL

0.0

Dry
0.0



2

-

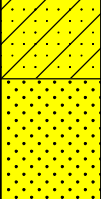
100%

Orange-Brown

Fine-medium SAND, some clay and fine-coarse gravel. No MGP impact.

SC

0.0



3

-

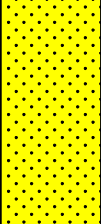
73%

Fine-coarse SAND, some-little fine-medium gravel, trace-no silt. No MGP impact.

SW

0.0

1.0
0-1



4

-

57%

Fine-coarse SANDY GRAVEL, little silt. No MGP impact.

GM

0.2

0.5

1.0

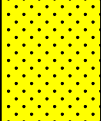
0.8

1.0

2.1

3.5

0-1



5

-

68%

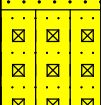
Dark Brown-Orange

Fine-coarse SAND, some fine-coarse gravel. No MGP impact.

SW

3.5

Wet
0-1



6

-

68%

Orange-Brown

Fine-coarse SANDY GRAVEL.

GP

2.5

0-1

Fine-coarse SAND, some fine-coarse gravel. No MGP impact.

SW

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

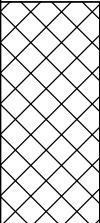
Borehole backfilled with cement-bentonite grout to grade.

Borehole precleared to 10' bgs inside regulator station.

BORING NO. : DGP-243

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%			Fine SAND, trace fine gravel.	SP		5.0	0.0
-35		8	-	97%	Orange-Brown		Fine-coarse SAND, trace silt, trace-few fine gravel.	SW		0.0	0.0
-40										1.0	
-40										1.5	
-45											
-50											
-55											
							End of boring at 40' bgs.				

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole precleared to 10' bgs inside regulator station.

URS Corporation										TEST BORING LOG				
										BORING NO. :		DGP-244		
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 2		
CLIENT: National Grid										JOB NO. :		11175065.00011		
BORING CONTRACTOR: F + N										BORING LOCATION:		On site		
GROUNDWATER: ~26' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION: N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:		9/28/08			
				DIA.		2-inch			DATE FINISHED:		9/28/08			
				WT.					DRILLER:		K. Kegel			
				FALL					GEOLOGIST:		J. Harshman			
					* POCKET PENETROMETER READING				REVIEWED BY:		K. Connare			
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Brown-Black	Loose	FILL. Fine-medium SAND, some fine-coarse gravel. No MGP impact.	FILL		0.0	Moist 0.0			
-5		2	-	78%	Light Brown-Orange	Loose	Fine-coarse SAND, little-trace fine-medium gravel. No MGP impact.	SW		0.0	Dry 0.0			
-10		3	-	73%						0.0	0.0			
-15		4	-	70%						Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	0.0	0.0	
-20		5	-	75%	0.0	0.0								
-25		6	-	65%	Orange-Brown	0.0	0.0							

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-244

PROJECT: National Grid MGP PDI, Hempstead, New York

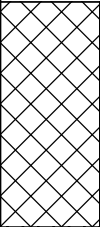
SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

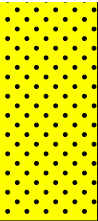

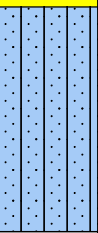
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Light Brown	Loose	Fine-coarse SAND, trace fine gravel. No MGP impact.				Wet
-30		7	-	93%		Medium Dense	Fine-medium SAND. No MGP impact.	SP		0.0	0.0
-35		8	-	93%						0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-245				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~26' bgs										BORING LOCATION: On site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 9/29/08					
				DIA.		2-inch			DATE FINISHED: 9/30/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	Loose	FILL. Fine-coarse sand, some fine-coarse gravel. No MGP impact.	FILL		0.0	Wet 0.0			
-5		2	-	82%	Orange-Light Brown	Loose-Medium Dense	Fine-coarse SAND, little-trace fine-coarse gravel. No MGP impact.	SW		0.6				
-10		3	-	93%	Dark Brown	Loose				0.2	13			
					Orange-Light Brown								0.3	
-15		4	-	72%		Loose-Medium Dense						0.0	0.0	
-20		5	-	72%		Loose						0.0	1.0	
-25	6	-	68%				0.0	0.0	0.0	Wet 0.0				
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-245														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	88%		Loose-Medium Dense				0.0	0.0
-35		8	-	93%	Light Brown					0.0	0.0
-40		9	-	92%	Orange-Brown	Loose	Medium-Coarse SAND and GRAVEL, poorly graded. No MGP impact.	SP-GP		0.0	0.0
							Fine-coarse GRAVEL, little coarse sand. No MGP impact.	GP			
							Fine-medium SAND. No MGP impact.	SP			
-45		10	-	92%	Light Brown	Medium Dense	Fine-coarse SAND, little-some fine-coarse gravel, trace clay.	SW		0.0	0.0
-50		11	-	97%		Loose	Fine-medium SAND. No MGP impact.	SP		0.0	0.0
-55		12	-	78%						0.0	0.0

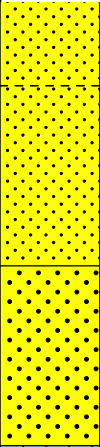
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	80%						0.0	0.0
-65					Light Brown- Orange	Medium Dense	Fine-coarse SAND, some fine- medium gravel.	SW			
		14	-	93%	Gray Orange- Light Brown		Fine SAND. No MGP impact.	SP SM		0.0	0.0
							Fine-medium SAND, trace silt and clay.				
-70											
							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Red	Dense					
-30		7	-	50%	Light Brown		Fine SAND. Trace naphthalene-like odor.			0.0	0.0
-35		8	-	60%		Loose				0.5 0.0	3.0 0-1
-40		9	-	60%	Brown- Red		Medium-coarse SAND, some-little subround gravel. Faint naphthalene-like odor from 37'-40'.	SW			
							-no MGP impact from 40'-45'.			0.0	0-2
-45		10	-	40%	Brown						
						Medium Dense	-faint naphthalene-like odor from 45'-60'.			0.0	0.0
-50		11	-	47%	Brown- Red					0.0	0.0
-55		12	-	40%						0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

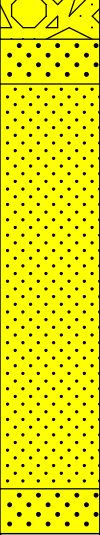
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	40%	Light Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.			0.0	0.0
-65		14	-	55%	Light Gray Light Gray- Light Brown	Loose- Medium Dense	Fine SAND. No MGP impact.	SP		0.0	0.0
-70					Brown- Orange	Dense	Fine SILTY SAND. No MGP impact.	SM			
-75							End of boring at 70' bgs.				
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

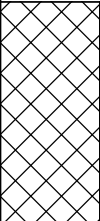
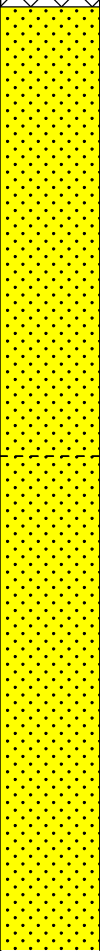
URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-247				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~26' bgs										BORING LOCATION: On site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/1/08					
				DIA.		2-inch			DATE FINISHED: 10/1/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose	TOPSOIL. No MGP impact.	TOPSOIL		0.0	Moist 0.0			
-5		2	-	88%	Light Brown-Orange		FILL. Loamy fine sand, trace gravel. No MGP impact.	FILL						
-10		3	-	87%			Fine-coarse SAND, some-little fine-medium gravel. No MGP impact.	SW		0.0	Dry 0.0			
						Dark Brown		Fine-medium SAND.	SP		0.0	0.0		
						Light Brown-Orange		Fine-coarse SAND, little fine gravel. No MGP impact.	SW		0.0	0.0		
-15		4	-	72%							0.0	0.0		
-20	5	-	67%			Loose-Medium Dense				0.0	0.0			
-25	6	-	72%							0.0	0.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.														
0'-5' interval pre-cleared with hand tools.														
Borehole backfilled with cement-bentonite grout to grade.														
BORING NO. : DGP-247														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
											Wet
-30		7	-	90%	Orange-Brown Light Brown	Loose	Fine-medium SAND. No MGP impact.	SP		0.0	0.0
-35		8	-	97%			-trace fine-coarse gravel.			0.0	0.0
-40		9	-	85%		Medium Dense				0.0	0.0
							Fine-coarse GRAVEL, trace-little fine-coarse sand.	GP			
-45		10	-	90%		Loose-Medium Dense	Fine-coarse SAND, little-trace fine gravel. No MGP impact.	SW		0.0	0.0
-50		11	-	90%						0.0	0.0
-55		12	-	92%						0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
0'-5' interval pre-cleared with hand tools.
Borehole backfilled with cement-bentonite grout to grade.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	80%			Fine-coarse SAND and GRAVEL.	SW-GW		0.0	0.0
							Fine SAND. No MGP impact.	SP			
		14	-	97%	Orange-Brown	Medium Dense	Fine-coarse SAND, trace well graded fine-medium gravel. No MGP impact.	SW			
-65						Loose-Medium Dense					
-70					Light Gray	Loose	Fine SAND. No MGP impact.	SP			
							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 0'-5' interval pre-cleared with hand tools.
 Borehole backfilled with cement-bentonite grout to grade.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-248				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~26' bgs										BORING LOCATION: On site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 10/6/08				
				DIA.		2-inch				DATE FINISHED: 10/6/08				
				WT.						DRILLER: K. Kegel				
				FALL						GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	Loose	FILL. Fine-coarse sand, little fine-coarse gravel, trace brick. No MGP impact.	FILL		0.0	Dry 0.0			
-5			2	-	85%	Light Brown-Orange	Loose-Medium Dense	Fine-coarse SAND, trace fine-medium gravel. No MGP impact.	SW	0.0	0.0			
-10			3	-	73%					0.0	0.0			
-15			4	-	68%					0.0	0.0			
-20			5	-	68%					0.0	0.0			
-25			6	-	62%					Orange-Brown	0.0	0.0		

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

0'-5' interval pre-cleared with hand tools.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-248

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
											Wet
-30		7	-	82%	Light Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.				
							Fine-coarse SAND. No MGP impact.	SP		0.0	0.0
-35		8	-	97%						0.0	0.0
-40		9	-	90%			Fine-coarse GRAVEL, little fine-coarse sand.	GP		0.0	0.0
-45		10	-	97%		Medium Dense	Fine-coarse SAND, trace fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-50		11	-	97%						0.0	0.0
-55		12	-	97%						0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
0'-5' interval pre-cleared with hand tools.
Borehole backfilled with cement-bentonite grout to grade.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%			Fine-coarse SAND, some fine-coarse poorly graded gravel. No MGP impact.	SP		0.0	0.0
-65		14	-	97%			Fine-coarse SAND, some fine-coarse well graded gravel. No MGP impact.	SW		0.0	0.0
-70							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 0'-5' interval pre-cleared with hand tools.
 Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-249

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 10/7/08

DATE FINISHED: 10/8/08

DRILLER: K. Kegel

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		CONSISTENCY					
						ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	Loose-Medium Dense	FILL. Fine-coarse sand, some gravel. No MGP impact.	FILL		0.0	Wet 0.0
-5		2	-	82%	Dark Brown-Light Brown	Medium Dense	Fine-coarse SAND, little fine-medium gravel, poorly graded. No MGP impact.	SP		0.0	0.0 Dry
-10		3	-	68%	Light Brown-Orange	Loose	Fine-medium SAND, trace fine gravel. No MGP impact.			0.0	0.0
-15		4	-	68%	Light Brown-Dark Brown		Fine-coarse SAND, some fine-coarse gravel. Slight petroleum coating and odor. Jar shake test- no sheen.	SW		1.0 2.0 3.0	0.0
-20		5	-	70%	Light Brown		Fine-coarse SAND, little fine-medium gravel, well graded.			2.0 0.0	0.0
-25		6	-	55%	Tan-Orange	Loose-Medium	-lightly coated with faint naphthalene-like odor at 24'. Jar shake test- slight sheen. Fine-coarse SAND, some-trace fine-coarse gravel.			3.0 0.0 5.0	Wet 0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

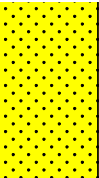

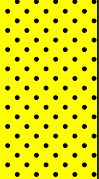















BORING NO. : DGP-249

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	90%		Dense	-brown staining, moderate NAPL coating, and moderate naphthalene-like odor from 26'-30'.			10	
										15	
-35		8	-	93%			-MGP impacted with black staining from 30'-34.5'. -moderate NAPL coating and sheen from 30'-32'.			40	0.0
							-NAPL saturation and sheen from 32'-33'. -Thin stringers of NAPL saturation from 33'-34.5'.			45	1.0
-40		9	-	97%	Brown-Orange			SP		50	2.0
										30	1.0
-45		10	-	97%	Light Brown-Tan	Loose	Fine-medium SAND. -NAPL blebs at 35'. No staining from 35.5'-38'.	GP		10	2.0
										20	1.0
-50		11	-	97%			-3" lens of NAPL saturation from 38'-38.5', moderate naphthalene-like odor. -No MGP impact from 38.5'-41'.	SW		10	2.0
										0.3	1.0
-55		12	-	97%		Medium Dense	Fine-coarse GRAVEL, trace coarse sand, poorly graded. No MGP impact.			0.0	0.0
										0.0	0.0
											
											
											
											
											
											
											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%			-Faint naphthalene-like odor.			0.0	0.0
-65		14	-	97%						0.0	0.0
-70							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-250

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~26' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/8/08

DIA. 2-inch

DATE FINISHED: 10/8/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Black-Brown	Medium Dense	FILL. Fine-coarse SAND, some fine-coarse gravel.	FILL		0.0	Dry 0.0
							-faint petroleum odor from 4'-5'.			1.0	
										2.0	
-5		2	-	77%	Light Brown		Fine-coarse SAND, trace-little fine-medium gravel.	SW		5.0	Moist-Dry 0.0
										20	
					Brown	Loose-Medium Dense	Fine-medium SAND, trace fine-medium gravel. Petroleum odor and black staining from 7'-10'.	SP		25	Dry
										30	
										35	
-10		3	-	62%		Loose	-Petroleum-like impacts, light brown staining, bands of black staining, trace sheen, and strong petroleum odor from 10'-20'. Jar shake test- trace sheen, oily residue, strong petroleum odor.			50	0.0
										45	
										50	
										55	
-15		4	-	62%		Medium Dense	Fine-medium SAND, little some fine-medium gravel. Moderate petroleum odor, thin lenses of black petroleum staining. Jar shake test: trace sheen, oily residue, strong petroleum odor.	SW		25	0.0
										30	
										50	
										55	
										60	
-20		5	-	53%	Gray-Light Brown		Fine-coarse SAND, trace fine-medium gravel. Strong naphthalene-like odor and black staining, trace sheen and coating. Gravel coated from 24'-25'.			70	0.0
										100	
										150	
										160	
										80	
-25		6	-	53%	Light Brown	Loose	Fine-coarse SAND, little fine gravel,	SP		45-60	0-3

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-250

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							poorly graded. Moderate naphthalene-like odor. Black staining from 25'-27'.				Wet
-30		7	-	43%		Loose-Medium Dense	-light brown petroleum-like staining, light coating and moderate naphthalene-like odor from 30'-35'.			10-50	1-6
-35		8	-	53%	Tan-Orange		-MGP impacted, thin lenses of heavy coating to NAPL saturation, black staining and strong naphthalene-like odor from 35'-40'.			20-200	0-1
-40		9	-	50%		Medium Dense	Fine-coarse SAND and fine-coarse GRAVEL. No MGP impact noted.	SW-GW		6.0	0.0
					Light Brown-Tan		Fine-medium SAND, trace fine gravel. No visible MGP impact.	SP			
-45		10	-	57%			Fine-coarse SAND, trace well graded fine-coarse gravel. No MGP impact.	SW		3.0	0.0
-50		11	-	72%						3.0	0.0
-55		12	-	60%						0.6	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation

TEST BORING LOG

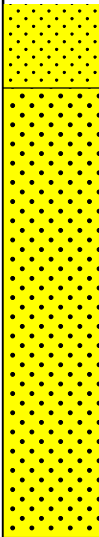
BORING NO. : DGP-250

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60											
		13	-	43%			Fine-coarse SAND, little fine-medium gravel, poorly graded. No MGP impact.	SP		2.0	0-1
										1.0	
										0.6	
-65		14	-	57%						0.6	0-1
-70							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-250

BORING NO. : DGP-251

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On-site

GROUNDWATER: ~30' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 12/29/08

DIA. 2-inch

DATE FINISHED: 12/29/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0							No Recovery. Hand cleared and filled with #2 sand. Concrete encountered at 2' bgs.	N/A		N/A	
-5		1	-	100%	Gray-Brown	Loose	Fine-coarse SAND, trace-little gravel. Slight naphthalene-like odor.	SW		0.0	Dry 0.0
		2	-	97%	White-Light Brown		Fine-coarse GRAVELLY SAND. Faint naphthalene-like odor.	SW-GW		5.3	1.0
					Orange-Brown		-moderate naphthalene-like odor, thin layers of light NAPL staining.			5.0	0.0
-10		3	-	80%	Dark Brown		Fine SAND, trace fine gravel. Moderate naphthalene-like odor, dark brown staining and heavy NAPL coating. -NAPL saturation from 11'-13'.	SW		25	1.0
										35	2.0
										72	
										84.9	
-15		4	-	77%	Tan		Fine-coarse SAND, some fine-medium gravel. Layers of slight-moderate NAPL coating from 13'-15'.			61.4	
					Black		-dark brown layers of moderate NAPL coating from 15'-16'.			48.6	2.0
							-moderate NAPL coating, and strong gasoline odor from 16'-19.5'.			48.4	
										85.4	
										171	
-20		5	-	78%	Tan		Fine-medium SAND. Trace NAPL coating.	SP		34.5	1.0
					Black			SW		131	2.0
							Fine-medium SAND, some fine-medium gravel. Black moderate petroleum coating and strong petroleum odor.			103	
					Gray					77.8	
										90.8	
										93.4	
-25		6	-	72%	Brown		-faint petroleum odor, no staining from			102	5.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-251

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							24.5'-25'. -strong petroleum odor from 25'-28'.			97.7	
										115	6.0
							Fine-coarse GRAVEL, some fine-medium sand. Moderate petroleum odor.	GW		18.7	2.0
										20.6	1.0
-30		7	-	83%	Light Brown		Fine-coarse SAND, few fine gravel. Slight petroleum odor.	SW		3.3	Wet
										2.3	
					Brown					4.1	0.0
										2.7	1.0
										4.6	4.0
-35		8	-	65%			Fine SAND. Moderate petroleum odor.	SP		1.3	0.0
										3.1	1.0
							Fine-coarse GRAVEL, some coarse sand. Moderate petroleum odor.	GW		5.8	2.0
										7.5	1.0
										7.7	
-40		9	-	87%	Light Brown		Fine-medium SAND, trace fine gravel. Faint petroleum odor.	SW		0.6	2.0
										1.1	
										1.8	
										0.3	
										0.4	
-45		10	-	97%			Fine-medium SAND. No MGP impact.			0.0	1.0
							-some fine-medium gravel.				
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-252

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/9/08

DIA. 2-inch

DATE FINISHED: 10/10/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	Medium Dense- Dense	FILL. Fine sand and clay, brick and wood fragments, gravel. No MGP impact.	FILL		0.4	Dry 0-1
-5		2	-	90%	White	Very Dense	Concrete.	CEMENT		0.0	0.0
					Light Brown	Dense-Medium Dense	Fine-coarse GRAVELLY SAND. No MGP impact.	SP		0.8	0-1
										0.5	
										0.4	
-10		3	-	80%	Orange-Brown		Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.7	0-1
										0.6	
										0.4	
										0.0	
-15		4	-	83%		Loose-Medium Dense				0.4	0-1
										0.6	
										0.8	1-2
										0.6	0-1
-20		5	-	77%	Light Brown	Loose				0.3	
										0.6	1-2
					Gray-Brown	Medium Dense	Fine-coarse SANDY GRAVEL. Naphthalene-like odor.	GW		14.3	Wet
										25.7	0-1
										42.2	1-2
-25		6	-	47%	Gray					1.0	0-1

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-252

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Gray-Brown		Fine-coarse SAND, some-trace fine-medium gravel. Naphthalene-like odor, slight sheen. Jar shake test-slight sheen, no staining, strong naphthalene-like odor.				2-3
-30		7	-	72%	Orange-Brown		-no MGP impact from 30'-35'.	SW		65.3	0.0
										4.1	0.0
										14.7	0-1
										1.9	0.0
										1.1	0-1
										0.0	
-35		8	-	97%	Light Brown		-black NAPL staining, NAPL saturation from 35'-35.5'.			14.7	0.0
										17.8	
							-thin black lenses of NAPL saturation from 38'-38.5'.			20.6	
										1.7	
-40		9	-	97%		Loose-Medium Dense	Fine-coarse SANDY GRAVEL. Pockets of black NAPL saturation from 38.5'-39'.	GP SW		0.5	0.0
							Fine-coarse SAND, little fine-medium gravel. NAPL sheen from 39'-40'. -no MGP impact noted from 40'-44.75'			0.0	
										25.5	
-45		10	-	97%			-moderate NAPL coating, dark brown staining, naphthalene-like odor from 44.75'-45'. -black NAPL saturation from 45'-45.3'.			14.1	0.0
										7.8	
							-black stringers of heavy NAPL coating from 49'-50'.			4.3	
-50		11	-	97%			Fine-coarse SAND, little fine-medium gravel. Light-moderate NAPL coating, staining, moderate naphthalene-like odor. Thin NAPL stringers throughout.			1.9	0.0
										3.1	
										4.5	
										3.0	
-55		12	-	80%			-3" seam of NAPL saturation at 54'. Fine-coarse SAND, trace fine gravel. No MGP impact.			0.1	0.0
										0.4	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-252

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

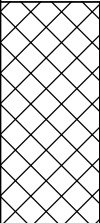

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							Fine SAND. No MGP impact.			0.1	
							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-252

<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-253				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~27' bgs										BORING LOCATION: On site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 10/9/08					
				DIA.		2-inch			DATE FINISHED: 10/10/08					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Brown	Loose	FILL. Fine-coarse sand, little-some well graded fine-coarse gravel. No MGP impact.	FILL		0.0	Moist 0.0			
-5		2	-	85%	Light Brown- Orange	Loose- Medium Dense	Fine-coarse SAND, trace-little fine-medium gravel. No MGP impact.	SW	0.0	Dry 0.0				
-10		3	-	70%										
-15		4	-	58%										
-20		5	-	58%										
-25		6	-	47%			Fine-coarse SAND, trace fine gravel.		0.0	0.0				
							-slight NAPL coating, brown staining and naphthalene-like odor from 24.5'-25'.			20				
							Fine-medium SAND. Brown NAPL	SP		10	0-1			
<div>COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.</div>														
BORING NO. : DGP-253														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							staining, slight NAPL coating, sheen and strong naphthalene-like odor. Jar shake test- heavy sheen and NAPL.			5.0	Wet
										4.0	
-30		7	-	57%		Loose	Fine-medium SAND, little fine-medium gravel. No MGP impact noted.	SW		0.0	0.0
							Fine-coarse SAND and GRAVEL. Moderate NAPL coating, sheen, and naphthalene-like odor.	SW-GW		20	
							Fine SAND. No MGP impact noted.	SP		5.0	
-35		8	-	63%	Light Brown	Loose-Medium Dense	Fine-medium SAND. No MGP impact.			0.0	0.0
-40		9	-	55%	Light Brown-Orange		Fine-coarse SAND, trace-little well graded fine-medium gravel. No MGP impact.	SW		0.0	0.0
-45		10	-	63%	Light Brown	Loose	Fine-coarse SAND. No MGP impact.			0.0	0.0
-50		11	-	53%						0.0	0.0
-55		12	-	35%			Fine-medium SAND, trace fine gravel. No MGP impact.			0.0	2.0
										0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-253

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-253

BORING NO. : DGP-254

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~29' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 10/10/08

DIA. 2-inch

DATE FINISHED: 10/13/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: J. Harshman/M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Light Brown	Loose	FILL. Mortar, brick, fine-medium sand. No MGP impact.	FILL		0.0	Moist 0.0
-5		2	-	73%	Dark Brown		Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	Dry 0.0
-10		3	-	72%	Orange-Brown		Fine-coarse SAND. Brown petroleum-like staining.			0.1	0-1
-15		4	-	63%	Light Brown Light Brown-Orange		Fine-coarse SAND, trace fine gravel. No MGP impact.			0.1	0-1
-20		5	-	58%	Light Brown	Medium Dense	Fine-coarse SAND, little-some fine-medium gravel. No MGP impact.			0.2	0.0
-25		6	-	55%			Fine-coarse SAND. Black staining and petroleum-like odor from 24.5'-			50 130 100	1.0 2-5

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-254

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							25'. -black staining and strong petroleum-like odor from 26'-27'.			150	
					Orange						Wet
-30		7	-	58%	Light Brown-Orange		Fine-coarse SAND, little fine-medium gravel. No MGP impact.			0.0	0.0
					Light Brown					0.6	
										0.9	
										1.3	
-35		8	-	68%	Light Brown-Orange					0.6	0-1
										0.9	
										2.0	
										1.3	
-40		9	-	58%	Light Brown	Dense- Very Dense	Fine-coarse GRAVELLY SAND. No MGP impact.	SP-GP		1.6	0-1
										0.6	
					Light Brown-Orange	Loose-Medium Dense	Fine-coarse SAND, trace fine-medium gravel. No MGP impact.	SW		1.0	
										0.6	
-45		10	-	55%		Loose				0.0	0.0
-50		11	-	42%		Loose-Medium Dense				0.2	0.0
										0.8	
										0.0	
-55							End of boring at 55' bgs.				

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-255

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site- Area E

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 10/9/08

DIA.

2-inch

DATE FINISHED: 10/9/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO.

BLOW
COUNT

REC%
RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE
HCN

0

-5

-10

-15

-20

-25



1

-

18%

Dark Brown

N/A

FILL. Clay, some fine-medium sand and angular gravel, ash like material. Sheen and faint naphthalene-like odor from 0'-3'.

FILL

14.1

Wet
0-1

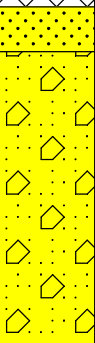
Brown

Fine-medium SAND, some fine-medium subround gravel. No MGP impact.

SW

0.7

0-1



2

-

75%

Gray

Fine-coarse SANDY GRAVEL. No MGP impact.

GW

Orange-Brown

Loose-Medium Dense

0.3

Dry

3

-

95%

Fine-coarse SAND, some-little fine-medium gravel. No MGP impact.

SW

4

-

83%

Light Brown

Loose

0.0

0.0

Light Brown-Orange

5

-

90%

Loose-Medium Dense

0.0

0.0

Orange-Brown



6

-

65%

Fine-coarse SANDY GRAVEL. No MGP impact.

GW

0.2

Wet
0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

0'-5' excavated during IRM.

BORING NO. : DGP-255

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							Fine-coarse SAND, trace-no fine gravel. -some gravel from 26.5'-27.5'.	SW		0.1	
					Light Brown						
-30		7	-	13%	Orange-Brown		Fine-coarse SANDY GRAVEL. No MGP impact.	GW		0.0	0.0
-35		8	-	97%	Brown					0.0	0.0
					Light Brown		Fine-coarse SAND, trace medium gravel. No MGP impact.	SW			
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
0'-5' excavated during IRM.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-256				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~24' bgs										BORING LOCATION: North end of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/3/08					
				DIA.		2-inch			DATE FINISHED: 11/3/08					
				WT.					DRILLER: B. Rath					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose	Fine LOAMY SAND, trace silt, trace fine gravel. No MGP impact.	SM		0.0	Dry 0.0			
-5		2	-	40%		Loose-Medium Dense	Fine-medium SAND, little-some fine-coarse gravel. No MGP impact.	SW		0.0	Moist- Dry 0.0			
-10		3	-	43%	Orange-Brown		Medium-coarse SAND and fine-medium GRAVEL. No MGP impact.	GP		0.0	Dry 0.0			
-15		4	-	58%	Orange-Light Brown		Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SP		0.0	0.0			
-20		5	-	57%	Light Brown	Loose				0.0	0.0			
-25		6	-	68%	Orange-Light					0.0	Wet 0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-256														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Brown						
					Light Brown- Gray	Loose- Medium Dense	Fine SILTY SAND. No MGP impact.	SM			
-30		7	-	53%	Light Brown	Medium Dense				0.0	0.0
							Fine-medium SAND, trace fine gravel. No MGP impact.	SP			
-35		8	-	45%		Medium Dense- Dense	Fine-coarse SAND, some fine- medium gravel. No MGP impact.	SW		0.0	0.0
-40					Gray	Dense	Fine-coarse SAND and GRAVEL. Faint naphthalene-like odor.	GP		2.0	
							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-257				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: On-site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 11/18/08				
				DIA.		2-inch				DATE FINISHED: 11/20/08				
				WT.						DRILLER: M. Mede/ B. Rath				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	N/A	FILL. Sand and silt, concrete, coal, trace glass fragments. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	62%	Brown	-trace silt from 10'-15'.	SW		0.0	0.0				
					Light Brown									
-10		3	-	63%	Brown	-trace silt from 10'-15'.	SW-GW		0.0	0.0				
-15		4	-	58%	Orange-Brown	Fine-coarse GRAVELLY SAND, trace silt. No MGP impact.	SW-GW		0.0	0.0				
	Dark Brown													
-20	5	-	52%	Light Brown	Fine-coarse SAND, some-little fine-coarse gravel, trace silt. No MGP impact.	SW		1.0	0.0	0.0				
-25	6	-	55%		Fine-coarse SANDY GRAVEL, trace silt. No MGP impact.	GW		0.0	Wet 0.0					
					Fine-coarse SAND, some-trace fine	SW								

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

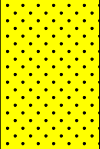
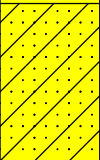
Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

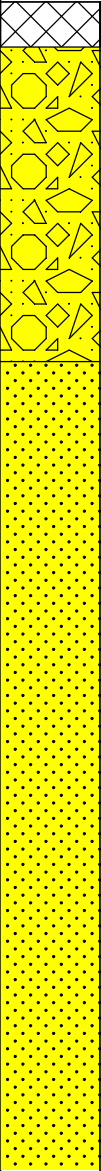
BORING NO. : DGP-257

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							gravel.				
-30		7	-	53%	Gray- Light Brown		Fine SAND. No MGP impact.	SP		0.0	0.0
-35		8	-	52%	Orange Gray- Light Brown		Fine-coarse SAND, trace-some fine- medium gravel.	SW		0.0	0.0
-40		9	-	57%	Light Brown					0.0	0.0
-45		10	-	42%	Brown Light Brown					1.7	10
-50		11	-	13%						0.5	6.0
-55		12	-	15%						1.7	3.0
										0.8	1.0
										0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	48%	Orange-Brown					0.2	
										0.0	0.0
					Light Gray		Fine SAND, few clay.	SC		0.1	
										0.0	
-65		14	-	0%			No Recovery from 65'-70'.	NONE		0.1	0.0
-70											
							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-258				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~26' bgs										BORING LOCATION: Stepout boring, North of DGP-253				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/17/08					
				DIA.		2-inch			DATE FINISHED: 11/17/08					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Black	Loose	FILL. Ash-like material, coal fragments, cinder.	FILL		0.0	Dry 0.0			
					Light Brown			SW-GW						
-5		2	-	83%			Fine-coarse SAND and GRAVEL. No MGP impact.			0.0	0.0			
-10		3	-	68%			Fine-coarse SAND, trace-little fine-coarse gravel. No MGP impact.	SW		0.7 1.3 0.0	0.0			
-15		4	-	65%						0.0	0.0			
-20		5	-	65%	Dark Brown					0.0	0.0			
-25		6	-	65%	Light Brown					0.0	0.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-258														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
											Wet
-30		7	-	92%	Light Brown-Orange					0.0	0.0
					Light Brown		Fine-medium SAND. No MGP impact.	SP			
-35		8	-	93%			-becoming fine sand from 34'-43'.			0.0	0.0
-40		9	-	92%						0.0	0.0
							Fine-coarse SAND and GRAVEL. No MGP impact.	SW-GW			
-45		10	-	93%		Medium Dense	Fine-coarse SAND, little poorly graded fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-50		11	-	93%			Fine-coarse SAND and GRAVEL.	SW-GW		0.0	0.0
							Fine-coarse SAND. No MGP impact.	SP			
-55		12	-	97%						0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Borehole backfilled with cement-bentonite grout to grade.
 Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-259				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~26' bgs										BORING LOCATION: On site, north of DGP-254.				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/18/08					
				DIA.		2-inch			DATE FINISHED: 11/18/08					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Black	Dense	FILL. Ash-like material, coal fragments, cinder, fine-coarse gravel.	FILL		0.0	Dry 0.0			
					Light Brown	Loose-Medium Dense	Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.	SW						
-5		2	-	80%	Light Brown-Orange					0.0	0.0			
-10		3	-	80%		Loose				0.0	0.0			
-15		4	-	72%						0.0	0.0			
-20		5	-	67%			Fine-coarse SAND and GRAVEL. No MGP impact.	SW-GW		0.0	0.0			
-25		6	-	65%			Fine-coarse SAND, some-little fine-	SW		0.0	Dry- Moist 0.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-259														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							coarse gravel. No MGP impact.				
							Fine-medium GRAVEL, little fine-coarse sand.	GW			Wet
							Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.	SW			
-30		7	-	67%	Light Brown-Gray					0.0	0.0
										0.7	
										1.0	
-35		8	-	93%		Loose-Medium Dense	Fine-medium SAND, trace silt. No MGP impact.	SM		0.0	0.0
										0.8	
-40		9	-	97%			Fine SAND, some-little fine-coarse gravel. No MGP impact.	SP		0.0	0.0
-45		10	-	97%	Light Brown	Medium Dense	Fine-coarse SAND. No MGP impact.	SW		0.0	0.0
					Light Brown-Orange	Dense	Fine-coarse SAND, trace-little fine gravel. No MGP impact.				
-50		11	-	78%	Light Brown	Medium Dense				0.0	0.0
-55		12	-	65%						0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-259

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-259

BORING NO. : DGP-260

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW- east of site

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 12/3/08

DIA. 2-inch

DATE FINISHED: 12/3/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

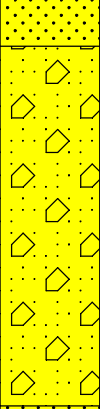
REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	N/A	ASPHALT. CLAYEY SILT, little fine-medium sand, moderate plasticity. No MGP impact.	ML/CL		0.0	Moist 0.0
-5		2	-	65%	Orange-Brown		Fine-coarse GRAVEL, some fine-coarse sand, trace silt. No MGP impact.	GW		0.0	0.0 Dry
-10		3	-	52%			Fine-coarse SAND, little fine-medium gravel, trace silt. No MGP impact.	SW		0.0	0.0
-15		4	-	65%	Light Brown		Fine-coarse SAND, some-little fine-medium gravel. No MGP impact.			0.0	0.0
-20		5	-	73%	Orange-Brown					0.0	0.0
-25		6	-	73%						0.0	Moist Wet 0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-260

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	73%	Light Brown		Fine-coarse SANDY GRAVEL. No MGP impact.	GW		0.0	0.0
-35		8	-	90%			Fine-coarse SAND, little-trace fine gravel. No MGP impact.	SW		0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation

TEST BORING LOG

BORING NO. : DGP-261

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR Row, east of MOB Parking Lot

GROUNDWATER: ~25' bgs

CAS.	SAMPLER	CORE	TUBE
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GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore
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DATE STARTED: 11/11/08

				DIA.		2-inch
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DATE FINISHED: 11/11/08

				WT.		
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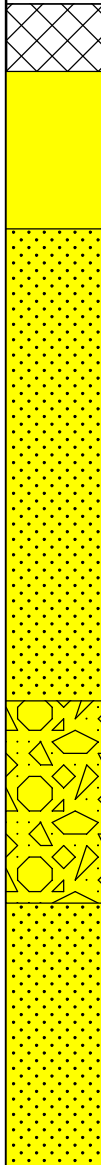
DRILLER: M. Meade

				FALL		
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GEOLOGIST: M. Dascoli

				* POCKET PENETROMETER READING
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REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE	
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN
0		1	-	100%	Dark Brown	N/A	FILL. Fine-coarse SAND, some silt, trace fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0-1	
					Light Brown		SILT, little fine-medium sand. No MGP impact.	ML				
-5		2	-	68%			Fine-coarse SAND, some-few fine-coarse gravel. No MGP impact.	SW		0.0	0-1	
-10		3	-	73%						0.0	1-2 0-1	
-15		4	-	60%	Light Brown-Orange Brown		Fine-medium GRAVELLY SAND. No MGP impact.	SW-GW		0.0	1.0 3.0 1.0 2.0 1.0	
-20		5	-	67%			Fine-medium SAND, some fine-medium gravel. No MGP impact.	SW		0.0	1.0 2.0	
-25		6	-	43%					0.9	Wet 1.0		

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-261

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

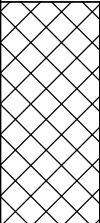
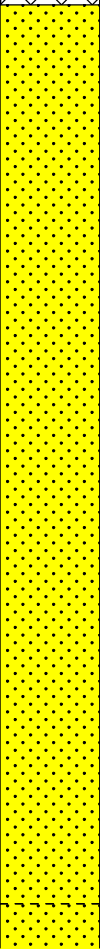

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COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Boring handcleared from 0'-5'.

BORING NO. : DGP-261

<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-262				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~37' bgs										BORING LOCATION: LIRR Row, East of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 11/12/08					
				DIA.		2-inch			DATE FINISHED: 11/12/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: M. Dascoli					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	N/A	FILL. Fine-coarse sand, few fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0.0			
					Brown		-trace fine cobbles.							
-5		2	-	80%	Light Brown		Fine-coarse SAND, some-trace fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	83%	Orange-Brown					0.0	0.0			
-15		4	-	83%						0.0	0.0			
-20		5	-	53%			-trace cobbles from 20'-25'.			0.0	0.0			
-25		6	-	42%			Fine-medium SAND, some fine-		13.5	Moist 0-1				
<div>COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.</div>														
BORING NO. : DGP-262														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							coarse gravel. Faint naphthalene-like odor, light NAPL coating on gravel.				
-30		7	-	N/A	Light Brown		Fine SAND, some silt. Moderate naphthalene-like odor.	SM		12.1	2.0
							-3" band of NAPL saturation, smaller seams of moderate NAPL coating, strong naphthalene-like odor from 32.5'-33.5'.			67.3	1.0
										1287	2.0
					Light Gray-Brown		Fine SAND, some silt. Moderate naphthalene-like odor.			97.1	3.0
-35		8	-	N/A						91.7	1.0
							Fine-coarse GRAVEL, some medium-coarse sand. Moderate naphthalene-like odor.			28	
					Light Brown			GW		19	2.0
						Loose-Medium Dense	Fine-coarse SAND, trace-little fine-medium gravel. Moderate naphthalene-like odor.	SW		15	Wet 1.0
-40		9	-	N/A						10.1	
										26.7	
										34.7	
										7.4	2.0
										2.3	1.0
-45										12.1	3.0
							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-263

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR Row, East of MOB

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 11/12/08

DIA.

2-inch

DATE FINISHED: 11/13/08

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: M. Dascoli

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

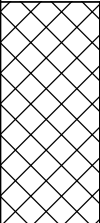
0		1	-	100%	Dark Brown	N/A	FILL. Clay, some silt and fine sand, trace fine-medium gravel and organic matter. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	65%	Light Brown		Fine-coarse SANDY GRAVEL. No MGP impact.	GW		0.0	0.0
							Fine SAND. No MGP impact.	SP			
-10		3	-	73%	Brown		Fine-coarse SAND, some-few fine-medium gravel.	SW		0.0	0.0
					Light Brown						
-15		4	-	63%	Brown		Fine-coarse GRAVELLY SAND. No MGP impact.			0.0	0.0
-20		5	-	62%	Orange-Brown		Fine-medium SAND, trace-few fine gravel.			0.0	0-1
					Light Brown		Fine-coarse GRAVELLY SAND. No MGP impact.				
					Dark Brown		Fine-medium SAND, trace-few fine gravel.	GW			
-25		6	-	33%			Fine-coarse SANDY GRAVEL. No			0.0	Wet 0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-263

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							MGP impact.				
							Fine-coarse SAND, trace fine gravel. Faint naphthalene-like odor.	SW			
-30		7	-	50%			Fine SAND, some silt, trace fine gravel. Strong naphthalene-like odor, dark brown staining, and thin lenses of NAPL coating. -no staining from 32'-33'.	SM		240	1.0
							-moderate NAPL coating from 33'-33.5'			53	2.0
							-MGP sheen from 33.5'-35'.			175	1.0
										375	4.0
-35		8	-	53%	Gray-Brown		Fine SAND, some silt. Moderate naphthalene-like odor.			53	2.0
										15.9	
										6.7	
										10.7	
					Brown		Fine-medium SAND, few fine gravel. Moderate naphthalene-like odor.	SW		15.1	3.0
-40		9	-	3%	Light Brown		Fine-medium SAND, trace silt. No MGP impact noted.	SP		18.1	5.0
										10.5	0.0
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-264				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~28' bgs										BORING LOCATION: SE corner off gas regulator station				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 12/30/08					
				DIA.		2-inch			DATE FINISHED: 12/30/08					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Brown-Dark Brown	Loose	FILL. Fine-medium silty sand, trace gravel, trace red brick. No MGP impacts.	FILL		0.0	Dry 0.0			
-5		2	-	97%	Light Brown-Orange		Fine-coarse SAND, trace-little fine-medium gravel. No MGP impacts.	SW		0.0	0.0			
-10		3	-	73%	Light Brown-Yellow					0.0	0.0			
-15		4	-	73%			Fine-coarse SAND, little fine-medium gravel. No MGP impact.			0.0	0.0			
-20		5	-	65%	Light Brown-Orange		Fine-coarse SAND, little fine-coarse gravel. No MGP impact.			0.0	0.0			
-25		6	-	60%						0.0	0.0			
<div>COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.</div>														
BORING NO. : DGP-264														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	83%	Tan Black		Fine-medium SAND. Moderate naphthalene-like odor, black and brown staining, sheen, and moderate NAPL coating. Intervals of heavy coating and NAPL saturation from 30'-34'.	SP		10 55 50	0.0 3.0 2.0
-35		8	-	75%	Light Brown		Fine SAND. Faint naphthalene-like odor. Fine SAND. No MGP impact noted.			6.0 2.0 0.0	0.0 0.0
-40		9	-	97%		Medium Dense	Fine-coarse SAND, some-few fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-265				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: On-site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 1/5/09				
				DIA.		2-inch				DATE FINISHED: 1/5/09				
				WT.						DRILLER: M. Meade				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	N/A	FILL. 3/4 stone on top layer. Fine-coarse sand and gravel, trace silt. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	75%	Orange-Brown		Fine-coarse SAND, some-few fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	70%	Brown-Dark Brown		Fine-coarse SAND, few fine gravel.			0.0	0.0			
							-faint naphthalene-like odor from 12.5'-13'.			0.6				
										8.5				
-15		4	-	72%	Orange-Brown		Fine-coarse GRAVEL, some medium-coarse sand. No MGP impact noted.	GW		3.2				
										3.5				
							Fine-coarse GRAVEL and SAND. Faint naphthalene-like odor.	SW-GW		6.5	0.0			
							Fine-coarse SAND, some fine gravel. Faint naphthalene-like odor.	SW		9.2				
										18.9				
										15.5				
										14.7				
-20		5	-	68%	Light Brown		Fine-coarse GRAVELLY SAND. No MGP impact.	SW-GW		5.5	0.0			
										6.7				
							Fine-coarse SAND, little-few fine-coarse gravel.	SW		6.1				
										6.3				
-25		6	-	67%			-faint naphthalene-like odor from 25'-30'.			1.9	Wet 0-1			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5'.														
BORING NO. : DGP-265														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	93%			Fine SAND. Moderate naphthalene-like odor.	SP		2.3	0.0
										3.1	
										3.4	
										4.1	
										1.2	0.0
										1.6	
					Dark Brown		-dark brown NAPL staining and thin lenses of moderate NAPL coating from 32.5'-33'.			26.7	2.0
										3.1	0.0
-35		8	-	97%	Light Brown		Fine-medium SAND. Faint naphthalene-like odor.	SW		3.3	
										3.4	0.0
							-little fine-medium gravel from 37'-37.5'.				
							-little fine-coarse gravel from 39'-40'.				
-40		9	-	97%	Brown		Fine-coarse GRAVEL, some medium-coarse sand. No MGP impacts.	GW		3.1	0.0
							Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		3.5	
										4.1	
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5'.

BORING NO. : DGP-266

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~24' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/5/09

DIA. 2-inch

DATE FINISHED: 1/5/09

WT.

DRILLER: M. Meade

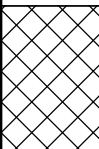

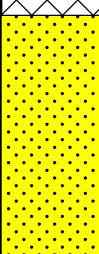

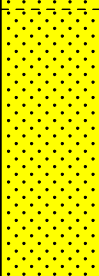

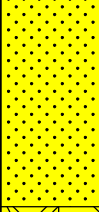

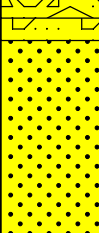




FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	N/A	FILL. 3/4 stone cover. Fine-coarse sand, some fine-coarse gravel, trace silt. -faint naphthalene-like odor from 1.5'-3.5'.	FILL		0.0	Dry
					Black					1.1	0.0
-5		2	-	77%	Gray-Light Brown	Medium-coarse SAND, some fine-medium gravel. No MGP impact. -thin lens of dark brown staining and faint naphthalene-like odor at 6'	SW		1.3		
					Brown				1.5		
									17.9	0-1	
									40.5	2.0	
-10		3	-	77%	Orange-Brown	Fine-coarse SAND, little fine-medium gravel. No MGP impact.			25.2	0.0	
									21.2		
									18.3	0-1	
									2.6		
-15		4	-	67%	Orange-Brown	-faint naphthalene-like odor from 15'-19.5'.			3.1	0.0	
										4.2	0-1
										5.8	
										6.1	
-20		5	-	63%	Gray	Coarse SAND and fine-medium GRAVEL. No MGP impact.	SW-GW		3.7		
					Orange-Brown				4.8	1-2	
					Light Brown	Fine-coarse GRAVEL, some fine-coarse sand. Faint naphthalene-like odor.	GW		7.8	0-1	
										12.1	
-25		6	-	72%	Brown	Fine SAND, trace fine-coarse gravel. Faint naphthalene-like odor.	SW		0.0	0.0	
									10.5	0-2	
						9.2			0-1		
						11.5					
	12.1										
	14.1	Wet									
	11.5	0-1									

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-70' bgs.

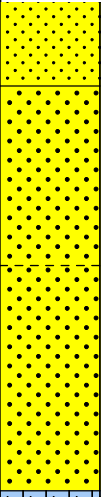
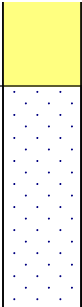

Boring handcleared from 0'-5' bgs.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-266

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	93%	Light Brown		Faint naphthalene-like odor.			9.3	
										12.6	
										5.3	1-2
										6.1	0-1
										9.5	
-35		8	-	97%						1.1	0-1
										1.3	
										1.5	
							Fine-coarse GRAVEL, some cobbles, trace coarse sand. No MGP impact noted.	GW		2.5	
-40		9	-	97%	Gray-Tan Orange-Brown		Fine-medium SAND, some fine gravel. Faint naphthalene-like odor.	SW		3.5	
							Fine-coarse GRAVEL, some fine-medium sand. Faint naphthalene-like odor.	GW		0.0	0.0
								SW		2.5	0-1
							Fine-coarse SAND, trace fine-medium gravel. Faint naphthalene-like odor.			3.8	
-45		10	-	97%	Light Brown		Fine-medium SAND, few fine-coarse gravel. No MGP impact.			0.0	0.0
							Fine-coarse GRAVEL, few fine-medium sand. No MGP impact noted.	GW			
							Fine-medium SAND, few fine-coarse gravel. No MGP impact.	SW			
-50		11	-	97%						0.0	0.0
										0.1	0-1
							Fine-coarse GRAVEL, little fine-medium sand. No MGP impact.	GW			
-55		12	-	97%			Fine-medium SAND, few fine-coarse gravel. -faint naphthalene-like odor from 55'-60'.	SW			0-1
										1.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-70' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		13	-	97%			Fine-medium SAND, trace medium gravel. Faint petroleum odor.	SP		1.1	0-1
											2.3
-65		14	-	97%			Fine SAND, very thin clay lense at 64'. Faint petroleum odor from 64'-65'. No MGP impact noted from 65'-69'.			0.0	0.0
-70					Orange-Brown		Fine SAND, some silt, trace intermittent clay lenses. No MGP impact noted.	SM			
							End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-70' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-267

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~26' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/12/09

DIA. 2-inch

DATE FINISHED: 1/12/09

WT.

DRILLER: B. Rath

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

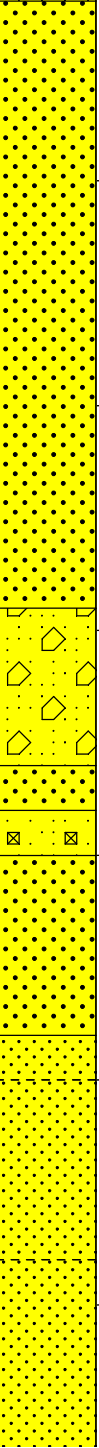
0		1	-	100%	Dark Brown	N/A	ASPHALT.	FILL		1.1	Dry 0.0
					Brown		FILL. Fine silty sand, some fine-coarse gravel. Moderate naphthalene-like odor.				
-5		2	-	97%	Light Brown		Fine-coarse SAND, some fine-coarse gravel. No MGP impact.	SW		0.0	0.0
										0.9	
										1.0	
							-moderate naphthalene-like odor from 8'-15'.			1.1	
										0.6	
-10		3	-	63%			-dark brown-colored bands from 10'-13'.			0.0	0.0
										1.1	
										0.3	0-1
										7.1	
										3.2	
-15		4	-	62%			Fine-coarse SAND, some fine-medium gravel, trace silt. Strong naphthalene-like odor.			71.3	
										196	2.0
							-black bands of tar staining at 17' and 18'.			108	
										63.3	
							-strong naphthalene-like odor.			15.1	0-1
-20		5	-	60%	Brown					50.3	1.0
										58.1	
										63.2	
										81	
										103	
-25		6	-	68%	Light Brown		Fine-medium GRAVEL, some coarse sand. Moderate naphthalene-like odor.	GW		25.9	1.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5' bgs.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-267

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	78%	Brown		Fine SAND, trace fine gravel. No MGP impact.	SP		16.7	Wet 0-1 0.0
					Gray		-fine silty sand lens at 29'.			11.1	0.0
										15.1	
										7.8	
										0.0	0.0
-35		8	-	97%						0.0	0.0
-40		9	-	83%	Light Brown		Fine-coarse GRAVEL, some-trace fine-coarse sand. No MGP impact.	GW		0.0	0.0
					Brown		Medium SAND, trace fine gravel. No MGP impact.	SP			
-45		10	-	97%	Brown		Fine-medium SAND and GRAVEL. No MGP impact.	SP-GP		0.0	0.0
							Fine SAND, trace fine gravel. No MGP impact.	SP			
-50		11	-	93%	Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0
							Fine-coarse SAND. No MGP impact.				
-55		12	-	97%	Brown		-few medium gravel from 53'-54'.				
					Light Brown		Fine SAND, trace fine gravel. No MGP impact.			0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-267

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							Fine-coarse SAND, trace medium gravel. No MGP impact.				
							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-267

URS Corporation

TEST BORING LOG

BORING NO. : DGP-268

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: N/A

GROUNDWATER: ~30' bgs

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore
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DATE STARTED: 1/6/09

				DIA.		2-inch
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DATE FINISHED: 1/7/09

				WT.		
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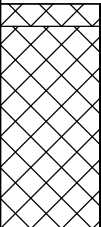

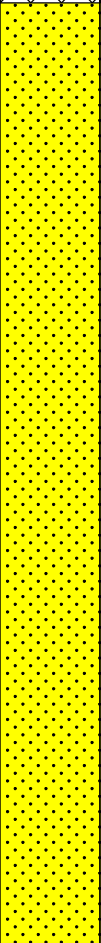
DRILLER: M. Mede

				FALL		
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GEOLOGIST: M. Dascoli

[illegible]

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE	
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN
0		1	-	100%	Gray Dark Brown	N/A	FILL. 3/4 Stone	FILL		0.0	Dry	
							FILL. Fine-coarse sand and gravel, some silt. Faint naphthalene-like odor from 0.5'-3'.			1.5	0.0	
										0.0	0.0	
-5			2	-	72%		Orange-Brown	Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.	SW		0.0	0.0
-10			3	-	78%						0.0	0.0
											0.1	
-15	4		-	72%			-trace silt from 15'-19'.			0.0	0.0	
									0.1	0-1		
-20		5	-	68%	Light Brown				0.0	0.0		
					Orange-Brown		-trace silt.					
-25		6	-	73%						0.0	0.0	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5'.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-268

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%	Brown		Fine SAND, little silt. No MGP impact.	SM		0.0	Wet 0.0
-35		8	-	72%			-little fine-medium gravel.			0.0	0.0
-40		9	-	65%	Orange- Brown		Fine-coarse GRAVEL, few medium-coarse sand. No MGP impact.	GW		0.0	0.0
-45		10	-	97%	Brown		Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.5	0.0
-50		11	-	97%	Light Brown		Fine-medium SAND, trace fine-medium gravel. No MGP impact.			0.0	0.0
-55		12	-	90%						0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5'.
Borehole backfilled with cement-bentonite grout to grade.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring handcleared from 0'-5'.
 Borehole backfilled with cement-bentonite grout to grade.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-269				
CLIENT: National Grid										SHEET: 1 OF 3				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: N/A				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 1/9/09				
				DIA.		2-inch				DATE FINISHED: 1/9/09				
				WT.						DRILLER: K. Kegel				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Dark Brown	N/A	FILL. Loamy fine sand, trace gravel. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	63%	Light Brown		Fine-coarse SAND, some fine-coarse gravel. No MGP impact.	SW		0.0	0.0			
-10		3	-	72%						0.0	0.0			
					Orange-Brown		Fine-coarse GRAVEL, some coarse sand. No MGP impact.	GW						
-15		4	-	68%	Light Brown		Fine-coarse SAND, trace-some fine-coarse gravel, trace silt. No MGP impact.	SW		0.0	0.0			
-20		5	-	70%			Fine-coarse SAND, some fine gravel, trace silt. No MGP impact.			0.0	0.0			
							Fine SAND, trace fine gravel. No MGP impact.	SP						
-25		6	-	62%			Fine-medium SAND, little fine-coarse	SW		0.0	Wet 0.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring handcleared from 0'-5'. Borehole backfilled with cement-bentonite grout to grade.														
BORING NO. : DGP-269														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	78%	Brown		gravel. No MGP impact.			0.0	0.0
-35		8	-	97%			Fine SAND, trace silt. No MGP impact.	SM			
							Fine SAND. No MGP impact.	SP		0.0	0.0
							-some medium-coarse gravel from 37'-37.5'.				
-40		9	-	97%	Orange-Brown		Fine SAND, trace silt. No MGP impact.	SM			
							Fine-coarse GRAVEL, some medium-coarse sand, trace cobbles. Faint naphthalene-like odor.	GW		0.0	0.0
-45		10	-	97%	Light Brown		Fine-medium SAND, little fine-medium gravel. No MPG impact.	SW		0.0	0.0
-50		11	-	97%						0.0	0.0
-55		12	-	N/A			Fine-coarse SAND, trace fine-medium gravel. No MGP impact.			0.0	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-269

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60							End of boring at 60' bgs.				
-65											
-70											
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-269

BORING NO. : DGP-270

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On site

GROUNDWATER: ~26' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/9/09

DIA. 2-inch

DATE FINISHED: 1/9/09

WT.

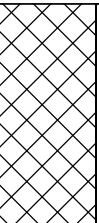

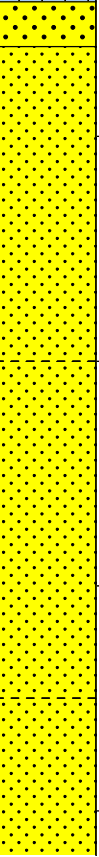

DRILLER: K. Kegel

FALL

GEOLOGIST: S. Ramrup

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

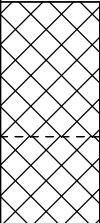

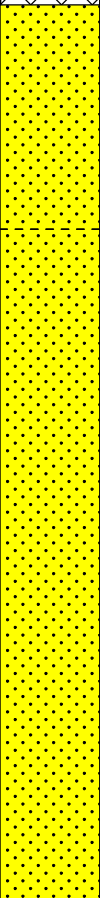


DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	Loose	FILL. Fine-medium sand, some fine-coarse gravel, trace tree roots.	FILL		0.0	Dry 0.0
					Light Brown	Stiff					
-5		2	-	93%	Dark Brown	Loose	-slight naphthalene-like odor from 5'-6'.	SM SP SW		0.0	
					Light Brown		Fine SILTY SAND. No MGP impact.				
					Brown		Fine SAND, some fine-coarse gravel. No MGP impact.				
-10		3	-	70%	Light Brown		Fine-coarse SAND. No MGP impact.			0.0	0.0
-15		4	-	58%			Fine-coarse SAND, some fine-medium gravel. No MGP impact.			0.0	Moist 0.0
-20		5	-	60%	Brown	Medium Dense				0.0	0.0
						Loose	Fine-medium SAND, some fine gravel. Faint naphthalene-like odor.				
-25		6	-	60%		Medium Dense				0.0	0.0

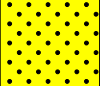

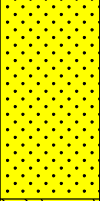

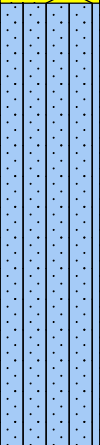
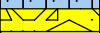

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-270

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Dark Brown	Loose					Wet
-30		7	-	83%	Gray-Brown		-slight NAPL sheen on water from 30'-31'.			0.0	0.0
					Light Brown		Fine-medium SAND, some fine-medium gravel. Faint naphthalene-like odor.				
-35		8	-	100%			Fine SILTY SAND, some fine gravel. Faint naphthalene-like odor.	SM			
							Fine-medium SAND. No MGP impact.	SW		0.0	0.0
-40		9	-	97%		Medium Dense				0.0	Moist 0.0
						Loose	Fine-coarse GRAVELLY SAND. No MGP impact.	SW-GW			
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-271				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~27' bgs										BORING LOCATION: On site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 1/12/09				
				DIA.		2-inch				DATE FINISHED: 1/12/09				
				WT.						DRILLER: K. Kegel				
				FALL						GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Black	Loose	FILL. Fine-medium sand and gravel. Black stained, tarry, slight naphthalene-like odor.	FILL		0.2	Moist 0.0			
					Brown	FILL. Fine-medium sand and gravel. No MGP impact.			0.1					
										0.0				
-5			2	-	83%		Fine-coarse SAND, some fine-medium gravel. Faint naphthalene-like odor. -black staining and light NAPL coating from 6'-7'. -no MGP impacts from 7'-10'.	SW		0.0				
										0.8				
										0.3				
-10	3		-	68%	Dark Brown	Fine-coarse SAND, trace fine-medium gravel. No MGP impact.			0.0	Dry				
-15		4	-	57%	Brown-Orange				0.0	0.0				
-20		5	-	60%	Dark Brown-Light Brown				0.0	0.0				
-25		6	-	58%	Light Brown-Orange		Fine-coarse SAND, with intervals of	SP		0.0	Moist 0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs. Boring handcleared from 0'-5' bgs. Borehole backfilled with cement-bentonite grout to grade.														
BORING NO. : DGP-271														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30	   	7	-	97%	Orange Light Brown		fine sand. No MGP impact. Coarse SAND and fine GRAVEL. No MGP impact. Fine-coarse SAND, some-little fine-medium gravel. No MGP impact.	SP-GP SW		0.0	0.0
-35	 	8	-	80%	Black Light Brown	Loose- Medium Dense	Fine-coarse SAND and fine GRAVEL. Black staining, heavy NAPL coating and few saturated lenses, sheens, blebs, and moderate naphthalene-like odor. Fine-medium SAND, trace-no silt. No MGP impact.	SW-GW SM		38 0.0	0.0
-40		9	-	87%						0.0	0.0
-45							Fine-coarse SAND and fine-medium GRAVEL. No MGP impact.	SW-GW			
							End of boring at 45' bgs.				

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-272

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Step out from DGP-234

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/14/09

DIA. 2-inch

DATE FINISHED: 1/14/09

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	N/A	TOPSOIL. (Description from DGP-234)	TOPSOIL		0.0	Dry 0.0
							LOAMY fine SAND, some fine-medium gravel, trace tree roots. No MGP impact. (Description from DGP-234)	FILL			
-5		2	-	97%			Fine-coarse GRAVEL, some fine-coarse sand, trace silt. No MGP impact.	GW		0.0	0.0
-10		3	-	70%						0.0	0.0
					Brown		Fine-coarse SAND, some fine gravel, trace silt. No MGP impact.	SW			
-15		4	-	68%	Dark Brown		Fine-medium SAND, little fine-medium gravel. No MGP impact.			0.0	0.0
					Brown						
-20		5	-	70%			Fine-medium SAND, little fine-medium gravel. Faint naphthalene-like odor and staining.			0.0	Wet 0.0
					Dark Brown		Fine-medium SAND. Faint naphthalene-like odor. -trace fine gravel. -moderate naphthalene-like odor, moderate NAPL coating and dark brown staining from 24'-25'.	SP			
-25		6	-	97%	Light Brown-			SM		3.3	0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5'.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-272

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Gray		Fine SAND, trace silt. Moderate naphthalene-like odor, sheen, blebs.				
-30		7	-	17%	Gray		Fine SAND. Faint naphthalene-like odor.	SP		0.0	0.0
-35		8	-	85%	Orange-Brown		Fine-coarse SAND, few-some fine-coarse gravel. Faint naphthalene-like odor.	SW		0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring handcleared from 0'-5'.
 Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-273

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Inside Reg. Station

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/8/09

DIA. 2-inch

DATE FINISHED: 1/13/09

WT.

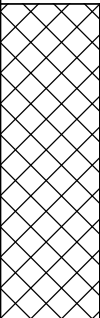
DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

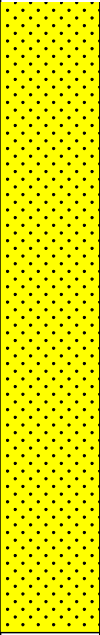
* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

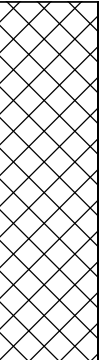
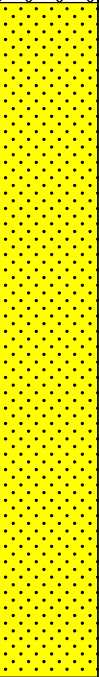
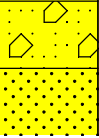
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Dark Brown	N/A	FILL. 3/4 stone with liner underneath at surface. Fine-medium sand, some silt, clay, and fine-medium gravel, trace cobbles. No MGP impact.	FILL		0.0	Dry 0.0
										0.5	
										0.9	0-1
										2.3	
-5		2	-	100%			-black layer with moderate naphthalene-like odor from 4.5'-5'.			0.9	0.0
										1.8	0-1
					Orange-Brown		Fine-coarse SAND, some fine-medium gravel, trace silt, trace cobble. No MGP impact.	SW		2.6	
										1.2	0.0
										2.1	
-10		3	-	67%						0.0	0.0
										0.4	
										0.9	
										1.0	
										1.1	
-15		4	-	60%						0.0	0.0
					Light Gray		Fine-medium SAND. No MGP impact.	SP			
-20		5	-	62%	Orange-Brown		Fine-coarse SAND, trace fine-medium gravel. No MGP impact.	SW		0.0	0.0
-25		6	-	60%	Brown					0.0	Wet 0.0

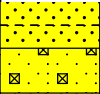

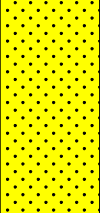
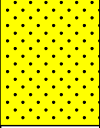
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-10' with air knife, guzzler, and hand auger.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-273

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	78%	Orange-Brown					0.0	0.0
-35		8	-	0%						0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring handcleared from 0'-10' with air knife, guzzler, and hand auger.
 Borehole backfilled with cement-bentonite grout to grade.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-274				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~23' bgs										BORING LOCATION: Inside Reg. Station				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 1/8/09				
				DIA.		2-inch				DATE FINISHED: 1/13/09				
				WT.						DRILLER: K. Kegel				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Black	N/A	FILL. 3/4 stone over geotextile fabric at surface. Fine-coarse sand, some silt and clay, some black coal fragments, some sheet metal and metal parts, few roots, trace organic soil. No MGP impact. -faint decaying odor from 3'-5'.	FILL		3.2	Dry 0-1			
-5		2	-	100%	Dark Brown					3.1				
						Brown				1.0	0-1			
-10			3	-	58%	Light Brown		Fine-coarse SAND, trace fine-medium gravel. No MGP impact. -trace silt	SW		1.5	0-2		
						Brown				2.5	0.0			
-15			4	-	58%					0.0	0.0			
-20	5		-	55%	Orange-Brown				0.0	0.0				
-25					Dark Brown		Fine-medium GRAVEL, few fine-medium sand, trace silt. No MGP impact.	GW		0.4	Wet			
		6	-	70%	Light Brown		Fine-coarse SAND, trace fine-medium gravel. No MGP impact.	SW		0.0	0.0			
COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring handcleared from 0'-10'. Borehole backfilled with cement-bentonite grout to grade.														
BORING NO. : DGP-274														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%	Brown Gray Brown Orange-Brown		Medium-coarse SAND. Heavy dark brown staining, no odor. Fine GRAVEL, some coarse sand. Light staining, no odor. Fine-medium SAND, trace fine gravel, some silt. Faint naphthalene-like odor, heavy staining. Fine SAND, little silt. No MGP impact. Fine-coarse SAND, little-trace fine-coarse gravel, trace silt. No MGP impact.	GP SW SM SW		0.4 0.9 1.1 0.1 0.0	1.0 0.0 0.0
-35		8	-	97%			Fine-coarse SAND. No MGP impact. -trace fine-medium gravel from 38'-39'.			0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-10'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-275

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Intersection of Wydler & Wendell

GROUNDWATER: ~20' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 1/8/09

DIA.

2-inch

DATE FINISHED: 1/16/09

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE

NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

0

-5

-10

-15

-20

-25

1

-

100%

Brown

N/A

FILL. Fine-coarse sand, some fine-coarse gravel, trace silt. No MGP impacts.

FILL

0.5

Dry

6.8

0-1

1.0

0.0

0.9

0.8

0.6

0.0

2

-

100%

-trace plant roots at 4'.
-trace plastic at 5'.
-trace glass at 6'.

Fine-coarse SAND, some fine-coarse gravel, trace silt. No MGP impact.

SW

0.0

0.5

1.0

0.0

0.0

3

-

60%

Orange-Brown

Loose

0.0

4

-

60%

0.0

0.0

Loose-Medium Dense

5

-

60%

Light Brown

N/A

Fine-coarse SAND, little fine-medium gravel. Faint naphthalene-like odor.

0.0

Wet

-trace silt

Dark Brown

Light Brown

6

-

77%

Brown

0.0

0.0

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-10'.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-275

BORING NO. : DGP-275

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	97%			Fine SAND, trace silt. Faint naphthalene-like odor from 26'-30'. -no MGP impact from 30'-35'.	SM		0.0	0.0
-35		8	-	85%	Dark Gray		Fine-coarse SAND. No MGP impact noted.	SW		7.3	2.0
					Orange-Brown		Fine-coarse GRAVEL, trace-little coarse sand, trace silt. Strong naphthalene-like odor from 37.25'-40'.	GW			
-40		9	-	58%	Brown		Fine-medium SAND, some fine gravel. Strong naphthalene-like odor.	SW		13.7	N/A
							Fine-coarse GRAVEL, some medium-coarse sand. Strong naphthalene-like odor.	GW			
-45							Fine-medium SAND, trace fine gravel. Strong naphthalene-like odor.	SW			
-50							End of boring at 45' bgs. -Sample submitted for BTEX and PAH analysis from 35.5'-37' bgs.				
-55											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-10'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-275

BORING NO. : DGP-276

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: West side of MOB

GROUNDWATER: ~24' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/18/09

DIA. 2-inch

DATE FINISHED: 1/18/09

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Brown	N/A	FILL. Fine-coarse sand, some fine-medium gravel, trace cobbles and silt. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	37%	Brown		Fine-coarse SAND, trace silt and fine gravel. No MGP impact.	SW		0.0	0.0
-10		3	-	50%	Dark Brown		SILTY CLAY, little fine-medium gravel. No MGP impact.	CL		0.0	0.0
-15		4	-	72%	Brown		Fine-medium SAND, some fine-coarse gravel, trace silt. No MGP impact.	SW GW			
-20		5	-	58%	Dark Brown		Fine-medium GRAVEL, some fine-coarse sand, trace silt. No MGP impact.	SW		0.0	0.0
-25		6	-	67%	Brown		Fine-coarse SAND, trace silt and fine-medium gravel. No MGP impact.	SW			
					Dark Brown		Fine GRAVEL, few fine-coarse sand, trace silt. No MGP impact.	SW			
					Brown		Fine-coarse SAND, some fine-medium gravel, trace silt. No MGP impact.	SW		0.0	0.0
					Dark Brown		Fine SAND, trace silt. No MGP impact.	SP			
					Red-Brown		Fine-medium SAND, trace fine gravel. No MGP impact.	SW GW			
					Light Brown		Fine GRAVEL, trace medium-coarse sand and silt. No MGP impact.	SW			Wet
					Brown		Fine-coarse SAND, some fine gravel, trace-no silt. No MGP impact.			0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-40' bgs.

Boring handcleared from 0'-5' bgs.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-276

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Light Brown						
-30		7	-	97%			Fine SAND, trace silt. No MGP impact.	SM		0.0	0.0
-35		8	-	97%						0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-40' bgs.
 Boring handcleared from 0'-5' bgs.
 Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-277

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: West side of MOB

GROUNDWATER: ~24' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/17/09

DIA. 2-inch

DATE FINISHED: 1/17/09

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

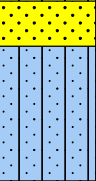
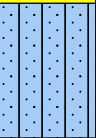

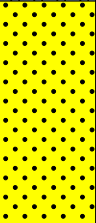




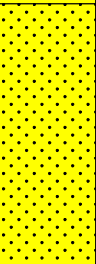
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN
0		1	-	100%	Brown	N/A	FILL. Fine-coarse sand, some fine-coarse gravel, trace silt. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	40%			Medium-coarse SAND, some silt and fine-coarse gravel. No MGP impact.	SW		1.5	0-1
					Light Brown		Fine-coarse SANDY GRAVEL. No MGP impact.	GW			
					Dark Brown		SILT, some fine sand, trace fine gravel. No MGP impact.	ML			
-10		3	-	60%	Brown		Fine-medium GRAVEL, some fine-coarse sand, trace silt. No MGP impact.	GW		0.0	0.0
					Light Brown		Fine-coarse SAND and fine GRAVEL. No MGP impact.	SP-GP			
					Dark Brown		Fine-coarse GRAVEL, some medium-coarse sand, trace silt. No MGP impact.	GW			
-15		4	-	65%			Fine-coarse SAND, trace silt and fine gravel. No MGP impact.	SW		1.5	0.0
					Orange-Brown		Fine-coarse SAND and fine GRAVEL. No MGP impact.	SW-GW			
							Fine-coarse SAND, trace fine gravel and silt. No MGP impact.	SW			
-20		5	-	67%	Dark Brown		Fine SAND, some silt. No MGP impact.	SM		3.0	0.0
					Light Brown		Fine-coarse SAND, trace fine-coarse gravel. No MGP impact.	SW			
-25		6	-	73%	Orange-Tan		Fine-medium GRAVEL, some coarse sand. No MGP impact.	GW		0.0	Wet 0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.

Boring handcleared from 0'-5' bgs.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-277

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							Fine-coarse SAND. No MGP impact.	SW			
							Fine SAND, trace silt. No MGP impact.	SM			
-30		7	-	97%	Dark Brown		Fine SAND. Strong naphthalene-like odor and heavy gray staining, NAPL blebs and sheen from 30'-31'. -sheen and strong naphthalene-like odor from 31'-35'.	SP		N/A	N/A
		8									
							Medium-coarse SAND, some fine gravel. No MGP impact.	SW			
							Fine-coarse GRAVEL, trace coarse sand. No MGP impact.	GW			
-35		9									
											
							Fine-coarse SAND, some medium-coarse gravel. Slight naphthalene-like odor. -strong naphthalene-like odor from 40'-45'.	SW			
-40					Gray						
-45							End of boring at 45' bgs.				
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.
Boring handcleared from 0'-5' bgs.
Borehole backfilled with cement-bentonite grout to grade.

<div>URS Corporation</div>										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-278				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~24' bgs										BORING LOCATION: South side of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 1/17/09					
				DIA.		2-inch			DATE FINISHED: 1/17/09					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0		1	-	100%	Brown	Loose	FILL. Fine-coarse SAND, little fine-coarse gravel. No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	68%	Black-Gray Light Brown	Medium Dense	Fine SILTY SAND, little fine-medium gravel. No MGP impact.	SM		0.0	0.0			
-10		3	-	83%	Brown	Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.0	0.0			
-15		4	-	77%	Orange-Brown	Loose	Fine-coarse SAND, little fine-medium gravel. No MGP impact.			0.0	0.0			
-20		5	-	77%	Light Brown-Orange	Loose-Medium Dense	Fine-coarse SAND, trace-little fine-medium gravel. No MGP impact.			0.0	0.0			
-25		6	-	93%	Light Brown	Medium Dense	Fine-medium SAND. NAPL sheen	SP		0.0	Wet 0.0			
<div>COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs. Boring handcleared from 0'-5' bgs. PID not working due to cold weather. Borehole backfilled with cement-bentonite grout to grade.</div>														
BORING NO. : DGP-278														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30 <											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore from 5'-45' bgs.
Boring handcleared from 0'-5' bgs. PID not working due to cold weather.
Borehole backfilled with cement-bentonite grout to grade.

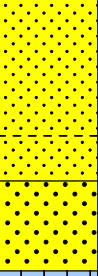

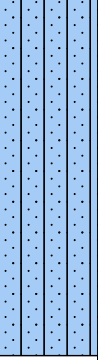
URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-279				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~28' bgs										BORING LOCATION: LIRR ROW, SE of MOB				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 1/16/09					
				DIA.		2-inch			DATE FINISHED: 1/16/09					
				WT.					DRILLER: M. Meade					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY					ROCK HARDNESS	HCN		
0		1	-	100%	Dark Brown	Loose-Medium Dense	FILL. Fine silty sand, trace gravel, little organic matter (plant roots). No MGP impact.	FILL		0.0	Dry 0.0			
-5		2	-	62%			Fine-medium SAND.	SP		0.0	0.0			
-10		3	-	60%	Light Brown-Orange	Loose	Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	0.0			
-15		4	-	70%	Orange-Brown		Fine-coarse SAND, little fine-medium gravel. No MGP impact.			0.0	0.0			
-20		5	-	70%			Fine-coarse SAND, little-some fine-medium gravel. No MGP impact.			0.0	0.0			
-25		6	-	63%	Light Brown					0.0	Moist 0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring handcleared from 0'-5'. Borehole backfilled with cement-bentonite grout to grade.														
BORING NO. : DGP-279														

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	80%	Brown Tan-Orange		Fine-coarse SAND, trace-little fine gravel. Brown staining, slight NAPL coating, faint naphthalene-like odor. Fine-medium SAND. No MGP impact.	SP		2.0 0.1 0.0	Wet 0.0
-35		8	-	93%	Brown Tan-Light Gray	Medium Dense Loose-Medium Dense	Fine SILTY SAND. No MGP impact. -trace fine-medium gravel from 35'-36.	SM		0.0	0.0
-40							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-280

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Southwest side of MOB

GROUNDWATER: ~23' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/17/09

DIA. 2-inch

DATE FINISHED: 1/17/09

WT.

DRILLER: M. Meade

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Brown	N/A	FILL. Fine-coarse sand, some fine-coarse gravel, some silt, trace brick fragments and cobbles. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	93%			Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	0.0
					Dark Brown	Hard	CLAY, some fine sand from 6'-7'. No MGP impact.	CL			
					Orange-Brown	Very Hard					
-10		3	-	63%	Brown	N/A	Fine SAND, some silt. No MGP impact.	SM		0.0	0.0
					Light Brown		Fine-coarse SAND, intermittent layers of fine gravel. No MGP impact.	SW-GW			
-15		4	-	68%	Orange-Brown		Fine-medium SAND, little fine-medium gravel, trace silt from 13'-15'. No MGP impact.	SW		1.5	0.0
					Dark Brown					0.0	0.0
-20		5	-	65%	Orange-Brown					0.0	0.0
-25		6	-	77%			Fine-coarse SAND. No MGP impact.	SP		0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5'.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-280

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Brown-Gray		Fine SAND. Faint naphthalene-like odor, black NAPL staining at 26'.				
-30		7	-	83%	Tan-Gray		-light NAPL coating from 29'-30', moderate naphthalene-like odor.			N/A	N/A
-35		8	-	85%			Coarse SAND and fine GRAVEL. Moderate naphthalene-like odor.	SP-GP		N/A	N/A
							Fine-coarse GRAVEL, trace coarse sand. Moderate naphthalene-like odor.	GW			
-40							Fine-medium SAND, trace fine-medium gravel. Moderate naphthalene-like odor.	SW			
							End of boring at 40' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring handcleared from 0'-5'.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-281

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Step out from DGP-251 & DGP-219

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 1/26/09

DIA. 2-inch

DATE FINISHED: 1/26/09

WT.

DRILLER: M. Mede

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					HCN

0		1	-	100%	Dark Brown	N/A	FILL. 1" layer of 3/4 stone at surface. Fine-coarse sand, some fine-coarse gravel. No MGP impact.	FILL		0.0	Dry 0.0
					Light Brown		CLAY, some fine sand.	CL			
-5		2	-	72%	Light Orange-Brown		Fine-coarse GRAVEL, some medium-coarse sand, trace silt. No MGP impact.	GW		0.0	0.0
							Fine-coarse SAND, some fine-coarse gravel. No MGP impact.	SW			
-10		3	-	63%	Light Brown					0.6	0-1
-15		4	-	65%						0.8	0-1
											0.0
					Black		Fine-coarse SAND, little fine gravel. Heavy staining, strong petroleum odor.			18.1	2.0
										30.5	0-2
										30.7	1.0
-20		5	-	63%						47.1	
										72.0	
										103	
							-some fine gravel.			110	
										152	
-25		6	-	60%	Brown		Fine-coarse SAND, trace-some fine-			103	Wet 1.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5'.

Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-281



TEST BORING LOG

BORING NO. : DGP-281

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring handcleared from 0'-5'.

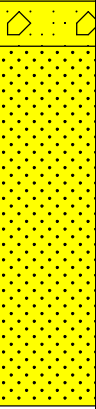





Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : DGP-281

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-282				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~20' bgs										BORING LOCATION: GC Park, step out from DGP-238				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore				DATE STARTED: 1/27/09				
				DIA.		2-inch				DATE FINISHED: 1/27/09				
				WT.						DRILLER: M. Mede				
				FALL						GEOLOGIST: M. Dascoli				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0							Boring handcleared and drilled from 0'-20'. Sampling begins at 20' bgs.							
-5														
-10														
-15														
-20		1	-	57%	Orange-Brown	N/A	Fine-coarse SAND. No MGP impact.	SW		0.0	Wet 0.0			
-25		2	-	93%			-some fine-medium gravel from 22'-24'.							
							Fine-coarse SAND, little fine-coarse			0.0	0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Boring handcleared from 0'-5', drilled from 5'-20', sampled from 20'-35'.														
BORING NO. : DGP-282														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		3	-	N/A			gravel. No MGP impact.				
-35							Fine-coarse SAND. No MGP impact. -some-trace fine-coarse gravel from 32'-35'.			0.0	0.0
-40							End of boring at 35' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Boring handcleared from 0'-5', drilled from 5'-20', sampled from 20'-35'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		3	-		Orange-Brown		<p>Moderate naphthalene-like odor, some NAPL sheen and staining 23'-25'.</p> <p>Fine-coarse SAND. Strong naphthalene-like odor, NAPL blebs and moderate coating 25'-26'.</p> <p>Fine-medium GRAVEL, some fine-medium SAND. Strong naphthalene-like odor, moderate NAPL coating 26'-27'.</p> <p>Fine-coarse SAND, trace fine gravel. Strong naphthalene-like odor & coating from 27'-30'. NAPL saturated lens from 27'-27.5'. Moderate naphthalene-like odor, NAPL coating & staining from 30'-35'. Thin NAPL saturated lenses at 33.5', 34', and 34.25'.</p> <p>End of boring at 35' bgs.</p>	GW		5.6	
					Dark Brown			SW		11.7	
										12.5	
										10.5	
										0.0	0.0
-35											
-40											
-45											
-50											
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Borehole backfilled with cement-bentonite grout to grade.
 Boring handcleared from 0'-5', drilled from 5'-20', sampled from 20'-35'.

BORING NO. : DGP-284

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~30' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/8/09

DIA. 3.5-inch

DATE FINISHED: 7/8/09

WT.

DRILLER: Jan C.

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-			No samples collected from 0'-20' bgs.						
-5												
-10												
-15												
-20		1	72%	Light Orange-Brown	N/A	Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0	0.0	
-25		2	85%			Fine-medium SAND, trace fine gravel			0.0	0.0	0.0	Wet

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-284



TEST BORING LOG

BORING NO. : DGP-284

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP	PID	HCN	H2S	MOISTURE
			RQD%					COLOR CODE				

[illegible]

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-284

BORING NO. : DGP-285

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~30' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/8/09

DIA. 2-inch

DATE FINISHED: 7/8/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0						No samples collected from 0'-20' bgs.						
-5												
-10												
-15												
-20		1	53%	Light Brown	N/A	Fine-medium SAND, some coarse sand, trace silt with trace fine gravel from 20'-21'. No MGP impact.	SM		0.0	0.0	0.0	Moist
-25		2	53%	Light Brown-		Fine-coarse SAND, trace fine gravel,	SW		0.0	0.0	0.0	Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-285



TEST BORING LOG

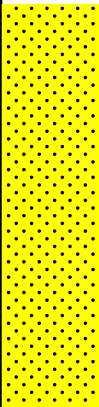
BORING NO. : DGP-285

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
-30		3	47%	Orange		trace silt. No MGP impact.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35												
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-285

BORING NO. : DGP-286

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~26' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 7/23/09

DATE FINISHED: 7/23/09

DRILLER: Evan Moriatis

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-			No samples collected from 0'-5'. Boring hand cleared from 0'-7.5' bgs.						
-5		1	97%	Dark Brown	Loose	Fine-coarse SAND, little fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
				Light Brown					0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-10		2	88%		Loose-Medium Dense				0.4	1.0	0.0	
									0.2	0.0	0.0	
									0.5	0.0	0.0	
									0.2	0.0	0.0	
									0.6	0.0	0.0	
-15		3	87%		Medium Dense	Fine-coarse SAND and GRAVEL, interval of fine silty sand from 17'- 17.5'. No MGP impact.	SW-GW		0.2	0.0	0.0	
									0.1	0.0	0.0	
									0.1	13	0.0	
									0.2	0.0	0.0	
									0.2	0.0	0.0	
-20		4	73%			Fine-coarse SAND, trace-little fine gravel. Dark brown NAPL staining, slight naphthalene-like odor from 20'- 22' and 23'-25'.	SW		3.0	0.0	0.0	
									2.5	0.0	0.0	
									10	1.0	0.0	
									16	0.0	0.0	
									12.5	4.0	0.0	
-25		5	58%			Fine-coarse SAND, trace fine gravel.			16	2.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 5' bgs. Boring hand cleared from 0'-7.5' bgs.

BORING NO. : DGP-286

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		6	55%			Slight-moderate brown NAPL staining, light NAPL coating, slight-moderate naphthalene-like odor.			9.0	9.0	0.0	Wet
									8.0	0.0	0.0	
									16	3.0	0.0	
									27	2.0	0.0	
						Fine SAND. Moderate-heavy brown NAPL staining, moderate coating and sheen, and naphthalene-like odor.	SP		40	4.0	0.0	
									60	7.0	0.0	
				Light Brown		Fine SAND. No MGP impacts. Faint naphthalene-like odor.			42	13	2.0	
									1.0	1.0	0.0	
									1.0	0.0	0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 5' bgs. Boring hand cleared from 0'-7.5' bgs.

BORING NO. : DGP-287

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 6/25/09

DIA. 2-inch

DATE FINISHED: 6/25/09

WT.

DRILLER: Evan Moriatis

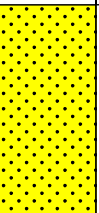

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-	N/A	N/A	No samples collected from 0'-5'.	NONE					
-5		1	55%	Dark Brown	Loose	Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	0.0	0.0	Slightly Moist
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-10		2	57%	Light Brown-Orange				0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
-15		3	50%	Orange-Brown	Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
									0.0	0.0	0.0	
									0.1	1.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-20		4	50%		Loose-Medium Dense			0.0	0.0	0.0		
								0.0	1.0	0.0		
								0.0	1.0	0.0		
								0.1	1.0	0.0		
								0.0	0.0	0.0		
-25		5	47%	Light Brown-		Fine-medium SAND, trace coarse	SP		0.0	0.0	0.0	Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 5' bgs.

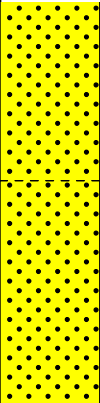
BORING NO. : DGP-287

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
-30		6	47%	Orange		sand and fine gravel. No MGP impact.			0.0	1.0	0.0	
									0.0	0.0	0.0	
									0.0	1.0	0.0	
									0.1	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35				Light Brown	Medium Dense	Fine SAND, trace silt. No MGP impact.						
-40												
-45												
-50												
-55												
						End of boring at 35' bgs.						

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with cement-bentonite grout to grade.
 Sampling begins at 5' bgs.

BORING NO. : DGP-288

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 6/24/09

DIA. 2-inch

DATE FINISHED: 6/25/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	N/A	N/A	N/A	No samples collected from 0'-15' bgs.	NONE					
-5												
-10												
-15		1	48%	Brown	Loose	Fine-coarse SAND, little-some fine-medium gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
									0.0	0.0	0.0	
									2.0	0.0	0.0	
									6.0	0.0	0.0	
						Fine-coarse SAND, little fine-medium gravel. Thin bands of black NAPL staining, faint naphthalene-like odor.			18	0.0	0.0	
-20		2	52%	Brown-Light Brown	Loose-Medium Dense	Fine-medium SAND, trace-little fine-medium gravel. Slight black NAPL staining at 20' bgs. Faint naphthalene-like odor.			18	0.0	0.0	
									20	0.0	0.0	
									22	0.0	0.0	
									20	0.0	0.0	Moist
						-black NAPL staining from 23'-25'. Faint naphthalene-like odor.			40	1.0	0.0	
-25		3	50%	Gray-Black	Loose	Fine-medium SAND, trace fine gravel.	SP		17	1.0	0.0	Moist-Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

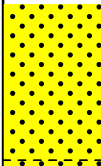

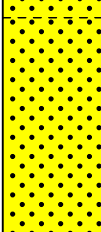

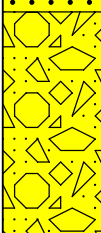
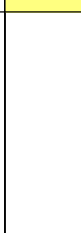
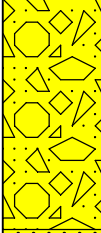
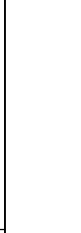
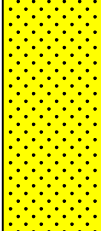
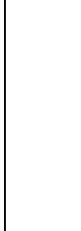
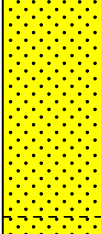
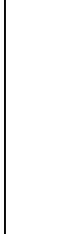
BORING NO. : DGP-288

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 3

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS			COLOR CODE				
-30		4	52%	Orange-Brown Light Brown-Orange	Medium Dense	Several thin bands of black NAPL staining. Faint naphthalene-like odor throughout. Fine-medium SAND, trace fine gravel. No MGP impact. Fine SAND, trace medium sand and silt. Faint naphthalene-like odor.			40	1.0	0.0	Wet
									10	1.0	0.0	
									6.0	1.0	0.0	
									2.0	1.0	0.0	
									1.5	0.0	0.0	
									2.0	0.0	0.0	
									3.0	0.0	0.0	
									3.0	1.0	0.0	
									3.0	1.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35		5	N/A		Loose	Fine-coarse SAND and fine-coarse GRAVEL. No MGP impact.	SW-GW		0.0	0.0	0.0	Wet
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-40		6	N/A						0.0	0.0	0.0	Wet
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-45		7	32%		Loose-Medium Dense	Fine-coarse SAND, trace-little fine-coarse gravel. No MGP impact.	SW		0.4	2.0	0.0	Wet
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.1	1.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.1	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-50		8	52%						0.0	0.0	0.0	Wet
									0.1	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.1	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-55		9	37%		Medium Dense	Fine-medium SAND, trace fine gravel. No MGP impact.			0.0	0.0	0.0	Wet
									0.1	1.0	0.0	
									0.1	1.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 15' bgs.

BORING NO. : DGP-288

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-289

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 6/26/09

DIA. 2-inch

DATE FINISHED: 6/26/09

WT.

DRILLER: Evan Moraitis

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-	N/A	N/A	No samples collected from 0'-10' bgs.	-					
-10		1	87%	Brown-Light Brown	Loose	Fine-medium SAND, trace fine gravel. Moderate brown NAPL staining with black NAPL staining from 11.5'-12'. Strong naphthalene-like odor.	SW		160	6.0	0.0	Dry
									185	1.0	0.0	
									140	0.0	0.0	
									180	0.0	0.0	
									100	0.0	0.0	
-15		2	60%	Brown	Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. Slight brown NAPL staining, moderate-strong naphthalene-like odor.			150	1.0	2.0	
									165	1.0	2.0	
									152	3.0	3.0	
									158	3.0	1.0	
									160	2.0	1.0	
-20		3	57%	Brown-Light Brown	Medium Dense	Fine-coarse SAND, little fine-medium gravel. Slight brown NAPL staining, strong naphthalene-like odor.			105	0.0	0.0	
									175	0.0	0.0	
									210	0.0	0.0	
							SP		80	0.0	0.0	
						Fine-medium SAND. Strong naphthalene-like odor.			75	0.0	0.0	
-25		4	55%			Fine-coarse SAND, little fine-medium	SW		106	0.0	0.0	Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-289

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30	Gravelly Sand	5	52%	Light Brown	Loose	gravel. Moderate naphthalene-like odor.	SP	Yellow	90	0.0	0.0	
						Fine SAND. Moderate naphthalene-like odor.	SP		60	0.0	0.0	
									125	0.0	0.0	
					Medium Dense	Fine-medium SAND, trace fine gravel. Moderate naphthalene-like odor.	SW		50	0.0	0.0	
						Fine SAND. Moderate to faint naphthalene-like odor.	SP		50	0.0	0.0	
									225	0.0	0.0	
									20	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-290

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~28' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 6/29/09

DIA.

2-inch

DATE FINISHED: 6/29/09

WT.

DRILLER: Evan Moraitis

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: J. Boyd

DEPTH
FEET

STRATA

SAMPLE
NO.

REC%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

HCN

H2S

MOISTURE

0

-5

-10

-15

-20

-25

No sampling from 0'-10' bgs.

FILL. Fine-coarse sand, some fine-medium gravel. Slight naphthalene-like odor from 10'-11'.
-fine-medium gravel, little ash-like material. Black NAPL staining from 11'-15', moderate brown/black NAPL coating from 14'-14.5', moderate naphthalene-like odor throughout.

Fine-coarse SAND, little fine-medium gravel. Black and brown NAPL staining and moderate coating, moderate naphthalene-like odor.

Fine-coarse SAND, little fine-medium gravel. Brown NAPL staining throughout, light-moderate NAPL coating from 20'-24', strong naphthalene-like odor throughout.

Fine-coarse SAND, some fine-medium gravel. Black NAPL staining and moderate coating, moderate naphthalene-like odor.

FILL

SW

75

140

70

120

210

150

325

160

140

260

230

102

450

285

145

187

0.0

0.0

0.0

0.0

2.0

0.0

4.0

6.0

3.0

2.0

0.0

2.0

4.0

6.0

29

0.0

Dry

Moist

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 10' bgs.

BORING NO. : DGP-290

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		5	53%	Brown	Medium Dense	Fine-medium SAND, trace fine-medium gravel. Slight brown NAPL staining throughout, slight NAPL coating from 28'-29'. Moderate naphthalene-like odor.			20	0.0	0.0	
						Fine-medium SAND, trace fine-medium gravel. Slight naphthalene-like odor.			230	0.0	0.0	
									185	0.0	0.0	Wet
									230	0.0	0.0	
									113	2.0	0.0	
									75	22	0.0	
							SP		300	12	0.0	
									250	25	0.0	
					Loose- Dense	Fine-medium SAND. Brown NAPL staining, moderate-heavy coating, strong naphthalene-like odor from 32'-34'. Faint naphthalene-like odor from 34'-35'.			5.0	5.0	0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-291

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~29' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 6/29/09

DIA. 2-inch

DATE FINISHED: 6/29/09

WT.

DRILLER: Evan Moraitis

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-			No sampling from 0'-15' bgs.						
-5												
-10												
-15		1	58%	Orange-Brown	Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
-20		2	75%	Orange	Loose				0.0	0.0	0.0	
				Light Brown		-little fine-medium gravel.			0.0	0.0	0.0	
-25		3	50%		Medium Dense	Fine-coarse SAND, trace-little fine			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-291

BORING NO. : DGP-292

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 6/25/09

DIA. 2-inch

DATE FINISHED: 6/25/09

WT.

DRILLER: Evan

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	100%	-	N/A	No samples collected from 0'-10'.	NONE					
-10		1	50%	Black	Dense	Fine-medium SAND, trace fine-medium gravel. Black NAPL staining, moderate NAPL coating, strong naphthalene-like odor.	SP		10	0.0	0.0	
									30	0.0	0.0	
									70	0.0	0.0	
									50	0.0	0.0	
									60	0.0	0.0	
-15		2	48%		Medium Dense	Fine-coarse SAND, some fine-coarse gravel. Black NAPL staining and slight coating, moderate naphthalene-like odor.	SW		62	0.0	0.0	
									55	0.0	0.0	
									50	0.0	0.0	
									62	0.0	0.0	
									65	0.0	0.0	
-20		3	48%	Brown-Black		Fine-coarse SAND, little-trace fine gravel. Brown NAPL staining and slight coating, slight naphthalene-like odor.	SW		37	0.0	0.0	Dry
									35	0.0	0.0	
									38	0.0	0.0	
									33	0.0	0.0	
									28	0.0	0.0	
-25		4	48%	Light Brown-		Fine-coarse SAND, trace fine-coarse	SW		4.0	0.0	0.0	Moist-Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-292



TEST BORING LOG

BORING NO. : DGP-292

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 10' bgs.

BORING NO. : DGP-292

BORING NO. : DGP-293

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~28' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 6/29/09

DATE FINISHED: 6/29/09

DRILLER: Evan Moraitis

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0						No sampling from 0'-20' bgs.						
-5												
-10												
-15												
-20		1	47%	Orange-Light Brown	Dense	Fine-coarse SAND and GRAVEL. No MGP impact.	SW-GW		0.0	0.0	0.0	Dry
-25		2	48%		Medium Dense	Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-293

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		3	27%		Loose-Medium Dense	-some fine-medium gravel. Fine-coarse SAND, little fine-medium gravel, trace cobble.			0.0	0.0	0.0	Wet
-35		4	53%	Light Brown	Medium Dense	-slight black NAPL staining, slight naphthalene-like odor at 35'. Fine SAND, trace silt. No MGP impact.	SM		2.5	1.0	0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

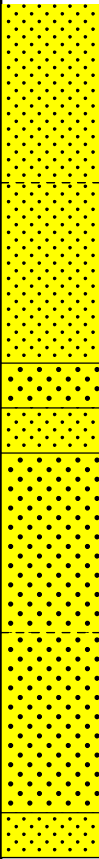


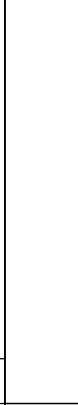
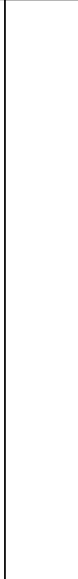
<div>URS Corporation</div>										TEST BORING LOG						
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : DGP-294						
CLIENT: National Grid										SHEET: 1 OF 2						
BORING CONTRACTOR: Zebra										JOB NO. : 11175065.00011						
GROUNDWATER: ~29-30' bgs										BORING LOCATION: N/A						
CAS.										GROUND ELEVATION:N/A						
SAMPLER										DATE STARTED: 6/30/09						
CORE										DATE FINISHED: 6/30/09						
TUBE										DRILLER: Evan Moraitis						
Macrocore										GEOLOGIST: J. Harshman						
2-inch										REVIEWED BY: J. Boyd						
WT.																
FALL																
* POCKET PENETROMETER READING																
DATE																
TIME																
LEVEL																
TYPE																
TYPE																
DIA.																
WT.																
FALL																
* POCKET PENETROMETER READING																
DEPTH FEET																
STRATA																
SAMPLE NO.																
REC%																
RQD%																
COLOR																
SOIL CONSISTENCY																
ROCK HARDNESS																
MATERIAL DESCRIPTION																
USCS																
MGP COLOR CODE																
PID																
HCN																
H2S																
MOISTURE																
0																
-5																
-10																
-15																
-20																
-25																
No samples collected from 0'-20' bgs.																
1										50%						
Brown-Orange										Medium Dense- Dense						
Fine-coarse SAND, little-some fine-medium gravel.										SW						
-slight naphthalene-like odor at 25'.																
2										47%						
Fine-coarse SAND, some fine-																
0.2										2.0						
0.2										2.0						
0.1										2.0						
0.1										2.0						
20										2.0						
30										4.0						
Dry																
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.																
Boring backfilled with cement-bentonite grout to grade.																
Sampling begins at 20' bgs.																
BORING NO. : DGP-294																

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP	PID	HCN	H2S	MOISTURE
			RQD%		CONSISTENCY			COLOR CODE				
					ROCK HARDNESS							
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		3	45%			medium gravel. Light clear NAPL coating, slight naphthalene-like odor.			10	3.0	0.0	Wet
						6.0			2.0	0.0		
		5.0	2.0			0.0						
		3.0	2.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
		0.0	0.0			0.0						
-35	4	55%	Medium Dense	Fine-medium SAND. No MGP impact.	SP		0.0	0.0	0.0			
				Fine-coarse SAND, little fine-medium gravel. Bands of black NAPL staining and heavy coating. Moderate naphthalene-like odor.	SW		0.0	0.0	0.0			
-40	5	70%	Orange-Light Brown	Medium Dense	Fine SAND. No MGP impact.	SP		20	2.0	0.0		
					0.0	0.0		0.0				
					0.0	0.0		0.0				
					0.0	0.0		0.0				
					0.0	0.0		0.0				
					0.0	0.0		0.0				
-45			Light Brown		Fine SAND, trace fine-medium gravel. No MGP impact.			0.0	0.0	0.0		
					0.0			0.0	0.0			
					0.0			1.0	0.0			
					0.0			2.0	0.0			
-45			Light Brown		Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW	0.0	1.0	0.0			
					0.0	1.0	0.0					
-50					End of boring at 45' bgs.							
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-294

BORING NO. : DGP-295

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/6/09

DIA. 2-inch

DATE FINISHED: 7/6/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0						No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	62%	Brown	N/A	Fine-coarse SAND, little fine gravel. Slight NAPL coating, slight naphthalene-like odor from 15'-16' and 19'-20'.	SW		7.2	1.0	0.0	
									5.9	0.0	0.0	
									11.3	0.0	0.0	
									12.5	0.0	0.0	
									20.9	0.0	0.0	
-20		2	57%	Dark Gray Black-Dark Gray		Fine-coarse SAND, 6" bands of fine gravel at 21' and 24'. Heavy black NAPL staining and coating, strong naphthalene-like odor.			25.7	4.0	0.0	
									52.3	2.0	0.0	
									57	0.0	0.0	
									46.8	0.0	0.0	
									42.2	0.0	0.0	
-25		3	57%	Dark Gray Orange-Brown		Fine-coarse SAND, some fine-coarse			68.4	1.0	0.0	Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-295



TEST BORING LOG

BORING NO. : DGP-295

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 15' bgs.

BORING NO. : DGP-295

BORING NO. : DGP-296

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~30' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/6/09

DIA. 2-inch

DATE FINISHED: 7/6/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	65%	Light Brown-Orange	N/A	Fine-coarse SAND, trace-few fine gravel, trace silt. No MGP impact.	SW		0.2	1.0	0.0	Dry
				Brown					0.1	1.0	0.0	
									0.1	0.0	0.0	
									0.1	0.0	0.0	
-20		2	63%			Fine-coarse SAND, trace fine gravel and silt. No MGP impact.			0.1	0.0	0.0	Moist
									0.1	1.0	0.0	
									0.2	1.0	0.0	
									0.2	1.0	0.0	
									0.2	1.0	0.0	
-25		3	62%	Light Orange-		Fine-coarse SAND, some fine-coarse			0.5	1.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-296

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		4	53%	Brown Dark Gray		gravel. -dark gray heavy petroleum staining, strong petroleum-like odor from 26.5'- 29'. Fine-medium SAND. Strong petroleum odor.	SP		11.1 35.2 44.4 36	3.0 3.0 2.0 2.0	0.0 0.0 0.0 0.0	
				Light Gray								
				Gray- Black		Fine-coarse SAND, some fine gravel. Moderate gray-black petroleum staining from 30'-31', strong petroleum-like odor from 30'-34'.	SW		54.8 52.3 60.9 20.3 56.9	2.0 1.0 1.0 2.0 5.0	0.0 0.0 0.0 0.0 0.0	Wet
				Light Brown- Gray								
-35		5	47%	Light Brown- Orange		Fine-medium SAND, trace gravel and silt. Strong petroleum-like odor. Fine-coarse SAND, some-little fine gravel, trace silt. No MGP impact.			4.1 0.1 0.0 0.0 0.0	2.0 1.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-297

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		3.5-inch		
				WT.				
				FALL				

DATE STARTED: 7/18/09

DATE FINISHED: 7/18/09

DRILLER: Jan C.

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
---------------	--------	---------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0						No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	77%	Brown-Light Brown	Loose	Fine-coarse SAND, some fine-coarse gravel.	SW		152	0	2.0	
									208	8.0	4.0	
									305	18	6.0	
						-brown NAPL staining, strong naphthalene-like odor from 18'-20'. Gray NAPL staining at 19.5'.			386	28	9.0	
									345	59	10	
-20		2	73%			Fine-coarse SAND, trace-little fine gravel. Black NAPL staining and moderate coating from 20'-21'. Strong naphthalene-like odor throughout.			65	0.0	0.0	Wet
									362	27	2.0	
						Brown NAPL coating from 23'-25'.			475	46	3.0	
									358	76	4.0	
									800	105	6.0	
-25		3	80%		Medium Dense	Fine-coarse SAND, trace-little fine gravel. Strong naphthalene-like odor. Several 2" intervals of black staining.			272	25	5.0	

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-297

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS			COLOR CODE				
1.0	CLAY	1	100	GRAY	CLAY	CLAY	CL	CLAY	1	CLAY	CLAY	CLAY
2.0	CLAY	2	100	GRAY	CLAY	CLAY	CL	CLAY	2	CLAY	CLAY	CLAY
3.0	CLAY	3	100	GRAY	CLAY	CLAY	CL	CLAY	3	CLAY	CLAY	CLAY
4.0	CLAY	4	100	GRAY	CLAY	CLAY	CL	CLAY	4	CLAY	CLAY	CLAY
5.0	CLAY	5	100	GRAY	CLAY	CLAY	CL	CLAY	5	CLAY	CLAY	CLAY
6.0	CLAY	6	100	GRAY	CLAY	CLAY	CL	CLAY	6	CLAY	CLAY	CLAY
7.0	CLAY	7	100	GRAY	CLAY	CLAY	CL	CLAY	7	CLAY	CLAY	CLAY
8.0	CLAY	8	100	GRAY	CLAY	CLAY	CL	CLAY	8	CLAY	CLAY	CLAY
9.0	CLAY	9	100	GRAY	CLAY	CLAY	CL	CLAY	9	CLAY	CLAY	CLAY
10.0	CLAY	10	100	GRAY	CLAY	CLAY	CL	CLAY	10	CLAY	CLAY	CLAY
11.0	CLAY	11	100	GRAY	CLAY	CLAY	CL	CLAY	11	CLAY	CLAY	CLAY
12.0	CLAY	12	100	GRAY	CLAY	CLAY	CL	CLAY	12	CLAY	CLAY	CLAY
13.0	CLAY	13	100	GRAY	CLAY	CLAY	CL	CLAY	13	CLAY	CLAY	CLAY
14.0	CLAY	14	100	GRAY	CLAY	CLAY	CL	CLAY	14	CLAY	CLAY	CLAY
15.0	CLAY	15	100	GRAY	CLAY	CLAY	CL	CLAY	15	CLAY	CLAY	CLAY
16.0	CLAY	16	100	GRAY	CLAY	CLAY	CL	CLAY	16	CLAY	CLAY	CLAY
17.0	CLAY	17	100	GRAY	CLAY	CLAY	CL	CLAY	17	CLAY	CLAY	CLAY
18.0	CLAY	18	100	GRAY	CLAY	CLAY	CL	CLAY	18	CLAY	CLAY	CLAY
19.0	CLAY	19	100	GRAY	CLAY	CLAY	CL	CLAY	19	CLAY	CLAY	CLAY
20.0	CLAY	20	100	GRAY	CLAY	CLAY	CL	CLAY	20	CLAY	CLAY	CLAY
21.0	CLAY	21	100	GRAY	CLAY	CLAY	CL	CLAY	21	CLAY	CLAY	CLAY
22.0	CLAY	22	100	GRAY	CLAY	CLAY	CL	CLAY	22	CLAY	CLAY	CLAY
23.0	CLAY	23	100	GRAY	CLAY	CLAY	CL	CLAY	23	CLAY	CLAY	CLAY
24.0	CLAY	24	100	GRAY	CLAY	CLAY	CL	CLAY	24	CLAY	CLAY	CLAY
25.0	CLAY	25	100	GRAY	CLAY	CLAY	CL	CLAY	25	CLAY	CLAY	CLAY
26.0	CLAY	26	100	GRAY	CLAY	CLAY	CL	CLAY	26	CLAY	CLAY	CLAY
27.0	CLAY	27	100	GRAY	CLAY	CLAY	CL	CLAY	27	CLAY	CLAY	CLAY
28.0	CLAY	28	100	GRAY	CLAY	CLAY	CL	CLAY	28	CLAY	CLAY	CLAY
29.0	CLAY	29	100	GRAY	CLAY	CLAY	CL	CLAY	29	CLAY	CLAY	CLAY
30.0	CLAY	30	100	GRAY	CLAY	CLAY	CL	CLAY	30	CLAY	CLAY	CLAY
31.0	CLAY	31	100	GRAY	CLAY	CLAY	CL	CLAY	31	CLAY	CLAY	CLAY
32.0	CLAY	32	100	GRAY	CLAY	CLAY	CL	CLAY	32	CLAY	CLAY	CLAY
33.0	CLAY	33	100	GRAY	CLAY	CLAY	CL	CLAY	33	CLAY	CLAY	CLAY
34.0	CLAY	34	100	GRAY	CLAY	CLAY	CL	CLAY	34	CLAY	CLAY	CLAY
35.0	CLAY	35	100	GRAY	CLAY	CLAY	CL	CLAY	35	CLAY	CLAY	CLAY

[illegible]

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore. Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 15' bgs.

BORING NO. : DGP-297

BORING NO. : DGP-298

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~28' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 7/20/09

DATE FINISHED: 7/20/09

DRILLER: E. Moraitis

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0						No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	63%	Light Brown	Loose	Fine-coarse SAND, trace fine gravel. No MGP impacts. -some fine gravel.	SW		0.0	0.0	0.0	Dry
-20		2	62%			Fine-coarse SAND, trace fine gravel. -black petroleum staining, thin bands of black staining, light petroleum coating, and slight petroleum like odor from 24'-25',			0.0	0.0	0.0	
-25		3	53%			Fine-coarse SAND, trace-little fine			2.0	0.0	0.0	
									5.0	0.0	0.0	
									4.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.










BORING NO. : DGP-298

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		4	60%	Light Brown- Gray	Medium Dense	gravel. Black petroleum staining, slight petroleum-like odor from 25'-27'. -liner stained with NAPL, slight naphthalene-like odor from 28'-30'. -slight brown NAPL staining from 29'- 30' Fine SAND, trace fine gravel at 30'. Brown NAPL staining, NAPL-stained liner, slight NAPL coating and moderate naphthalene-like odor from 31'-33'.	SP	        	22 25 45 48 63 110 196 106 54	0.0 1.0 1.0 2.0 0.0 2.0 2.0 8.0 8.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Wet
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-299

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~23' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/18/09

DIA. 3.5-inch

DATE FINISHED: 7/18/09

WT.

DRILLER: Jan C.

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		-	-			No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	78%	Brown-Orange	Loose	Fine-coarse SAND, little fine gravel.	SW		0.0	0.0	0.0	Dry
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									40	0.0	0.0	
-20		2	73%	Brown-Light Brown		Fine-coarse SAND, trace little fine-coarse gravel. Light clear-colored coating, moderate naphthalene-like odor.		340	1.0	0.0		
								307	4.0	0.0		
								325	12	1.0		
								425	24	2.0		Wet
								480	32	2.0		
-25		3	40%			-strong naphthalene-like odor from 25'-29', no staining noted.		390	7.0	2.0		

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-299

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		4	77%		Medium Dense	Fine SAND, trace cobbles. Slight black NAPL staining, strong naphthalene-like odor.	SP		150	8.0	2.0	
									103	12	2.0	
									480	13	3.0	
									913	39	6.0	
							SW		54	0.0	0.0	
						Fine-coarse SAND, trace fine gravel from 34.5'-35'. Slight naphthalene-like odor.			36	0.0	0.0	
									14	0.0	0.0	
									213	0.0	0.0	
									42	0.0	0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-300

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~27' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/20/09

DIA. 2-inch

DATE FINISHED: 7/20/09

WT.

DRILLER: E. Moraitis

FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0						No samples collected from 0'-15'.						
-5												
-10												
-15		1	57%	Orange-Brown	Loose-Medium Dense	Fine-coarse SAND, little fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
-20		2	63%		Loose	Fine-coarse SAND, trace fine gravel. No MGP impact.			0.0	0.0	0.0	
-25		3	63%		Loose-Medium	Fine-coarse SAND, little fine-coarse gravel.			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-300

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		4	57%	Orange- Light Brown	Dense	-stained liner, slight brown NAPL staining and naphthalene-like odor from 29.5'-30'.			0.0	0.0	0.0	Wet
						Fine-coarse SAND, trace fine gravel. Faint naphthalene-like odor.			0.0	0.0	0.0	
									5.0	0.0	0.0	
									36	0.0	0.0	
									2.0	0.0	0.0	
									15	22	0.0	
									20	25	0.0	
						-slight brown NAPL staining and stained liner from 33'-35'.			14	76	0.0	
									23	27	0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-301

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~23' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 7/19/09

DIA.

2-inch

DATE FINISHED: 7/19/09

WT.

DRILLER: Charles

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: J. Boyd

DEPTH
FEET

STRATA

SAMPLE
NO.

REC%
RQD%

COLOR

SOIL
CONSISTENCY
ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

HCN

H2S

MOISTURE

0

-5

-10

-15

-20

-25

No samples collected from 0'-20' bgs.

Fine-coarse SAND, little fine gravel.
No MGP impact.

SW

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

1.0

0.0

0.2

1.0

0.0

Wet

Fine-coarse SAND. No MGP impact.

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-301



TEST BORING LOG

BORING NO. : DGP-301

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
-30 <												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-301

BORING NO. : DGP-302

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/8/09

DIA. 2-inch

DATE FINISHED: 7/8/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-10' bgs.						
-10		1	77%	Brown	N/A	Fine-coarse SAND, some fine gravel, trace silt. No MGP impact.	SW		0.0	0.0	0.0	Moist
-15		2	67%						0.0	0.0	0.0	
-20		3	50%						0.0	0.0	0.0	
-25		4	67%	Light Brown		Fine SAND, trace silt. Moderate dark	SM		0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-302

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		5	72%			brown NAPL staining, slight naphthalene-like odor. -some fine-coarse gravel from 29.5'-30'. -slight light brown-gray staining, strong naphthalene-like odor from 30'-35'. -slight NAPL coating in 1/4" lense at 33.5'.			0.0 0.0 0.0 0.0 20.3 46.4 77.2 83.6 24.5	0.0 0.0 0.0 0.0 2.0 2.0 1.0 2.0 17	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
-35						End of boring at 35' bgs.						
-40												
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with cement-bentonite grout to grade.
 Sampling begins at 10' bgs.

BORING NO. : DGP-303

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~10' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 9/22/09

DATE FINISHED: 9/22/09

DRILLER: Luke

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0												
-5												
-10		1	70%	Orange	Loose-Medium Dense	Fine-coarse SAND, trace fine gravel. Slight black NAPL staining from 14'-14.25'. Faint naphthalene-like odor throughout.	SW		0.0	0.0	0.0	Wet
-15		2	78%	Light Brown		Fine SAND. Slight black NAPL staining, faint naphthalene-like odor.	SP		10	0.0	0.0	
-20		3	70%			Fine SAND. Faint naphthalene-like odor.			5.0	0.0	0.0	
-25		4	63%	Light Brown	Medium Dense- Dense	Fine SAND. No MGP impact.	SW-GW		0.0	0.0	0.0	
				Orange	Medium Dense	Fine-coarse SAND and GRAVEL. No MGP impact.	SP		0.0	0.0	0.0	
						Fine-medium SAND. No MGP impact.	SW		0.0	0.0	0.0	
						Fine-coarse SAND, little fine gravel.			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-303

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							

-30						No MGP impact.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35												
-40												
-45												
-50												
-55												
						End of boring at 30' bgs.						

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with bentonite grout to grade.
 Sampling begins at 10' bgs.

BORING NO. : DGP-304

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~23' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/8/09

DIA. 3.5-inch

DATE FINISHED: 7/8/09

WT.

DRILLER: Jan C.

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0						No samples collected from 0'-20' bgs.						
-5												
-10												
-15												
-20		1	72%	Orange-Brown	N/A	Fine SAND, some fine gravel from 20'-20.5'. No MGP impact.	SP		0.1	0-1	0.0	Moist
									0.1	0-2	0.0	
						Fine-coarse SAND, little fine gravel, trace silt. No MGP impact.	SW		0.1	0-1	0.0	
									0.1	0-2	0.0	Wet
									0.0	0.0	0.0	
-25		2	93%	Dark Brown		Fine-medium SAND, trace fine gravel.			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-304



TEST BORING LOG

BORING NO. : DGP-304

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-304

BORING NO. : DGP-305

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 7/22/09
 DATE FINISHED: 7/22/09
 DRILLER: Evan Moriatis
 GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0						No samples collected from 0'-25'.						
-5												
-10												
-15												
-20												
-25		1	67%	Light Brown	Loose-Medium	Fine-coarse SAND, some fine gravel.	SW		0.0	0.0	0.0	Wet

COMMENTS: Boring advanced with a 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with cement-bentonite grout to grade.
 Sampling begins at 25' bgs.

BORING NO. : DGP-305

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
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COMMENTS: Boring advanced with a 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 25' bgs.

<div>URS Corporation</div>										TEST BORING LOG						
										BORING NO. :		DGP-306				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 2				
CLIENT: National Grid										JOB NO. :		11175065.00011				
BORING CONTRACTOR: Zebra										BORING LOCATION:		N/A				
GROUNDWATER: ~30' bgs						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:N/A						
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 7/20/09							
				DIA.		2-inch			DATE FINISHED: 7/20/09							
				WT.					DRILLER: E. Moraitis							
				FALL					GEOLOGIST: J. Harshman							
				* POCKET PENETROMETER READING					REVIEWED BY: J. Boyd							
DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION			USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE		
0						No samples collected from 0'-25'.										
-5																
-10																
-15																
-20																
-25		1	60%	Orange-Brown	Medium Dense	Fine-coarse SAND, little-some fine			SW		0.0	0.0	0.0	Dry		
<div>COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with cement-bentonite grout to grade. Sampling begins at 25' bgs.</div>																
										BORING NO. : DGP-306						

URS Corporation

TEST BORING LOG

BORING NO. : DGP-306

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 25' bgs.

BORING NO. : DGP-306

BORING NO. : DGP-307

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~23' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 7/21/09

DIA.

2-inch

DATE FINISHED: 7/21/09

WT.

DRILLER: E. Moraitis

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: J. Boyd

DEPTH
FEET

STRATA

SAMPLE
NO.

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

HCN

H2S

MOISTURE

0

-5

-10

-15

-20

-25

No samples collected from 0'-20' bgs.

Fine-coarse SAND, some fine-coarse gravel. No MGP impact.

SW

0.0

0.0

0.0

0.0

0.0

0.0

0.2

0.0

0.0

0.2

0.0

0.0

0.0

0.0

0.0

0.0

0.0

0.0

Wet

Fine SAND, trace silt at 28'. No MGP

SP

0.0

0.0

0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 20' bgs.

BORING NO. : DGP-307

BORING NO. : DGP-307

BORING NO. : DGP-308

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~27' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/20/09

DIA. 2-inch

DATE FINISHED: 7/20/09

WT.

DRILLER: E. Moraitis

FALL

GEOLOGIST: J. Harshman


* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0
-5
-10
-15
-20
-25

No samples collected from 0'-25'.

25		1	57%	Brown-Light	Loose	Fine-coarse SAND, little fine-coarse	SW		0.0	2.0	0.0	
----	---	---	-----	-------------	-------	--------------------------------------	----	--	-----	-----	-----	--

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 25' bgs.

BORING NO. : DGP-308

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		2	57%	Brown Light Brown		gravel. No MGP impact. Fine SAND. No MGP impact.			0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1.0 0.0 0.0 0.0 10 0.0 4.0 10 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Wet
-35		3	53%	Gray-Dark Gray		Fine-medium SAND, trace little fine gravel. Very faint naphthalene-like odor.	SW		0.0 0.0 0.0 1.0 0.0	0.0 12 12 8.0 4.0	0.0 0.0 0.0 0.0 0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 25' bgs.

BORING NO. : DGP-309

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 7/21/09

DIA.

2-inch

DATE FINISHED: 7/21/09

WT.

DRILLER: E. Moraitis

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: J. Boyd

* POCKET PENETROMETER READING

DEPTH
FEET

STRATA

SAMPLE
NO.

REC%
RQD%

COLOR

SOIL
CONSISTENCY
ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

HCN

H2S

MOISTURE

0

-5

-10

-15

-20

-25

1

N/A

Dark
Brown

Loose

Loamy fine-coarse SAND, little fine-coarse gravel, trace silt. No MGP impact.

SW

0.0

0.0

0.0

Dry

2

27%

Fine-coarse SILTY SAND, little fine coarse gravel. No MGP impact.

SM

0.0

0.0

0.0

3

20%

Light
Brown

Fine-coarse SAND, some fine-medium gravel. No MGP impact

SW

0.0

0.0

0.0

4

77%

Light
Brown-
Orange

Fine-coarse SAND, trace-little fine gravel. No MGP impact.

0.0

0.0

0.0

5

87%

Fine-coarse SAND, little fine gravel. Black petroleum staining and light petroleum coating, moderate petroleum-like odor.

28

0.0

0.0

6

67%

Light
Gray-

Fine-medium SAND. Slight

SP

17

0.0

0.0

Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Boring hand cleared to 5' bgs.






BORING NO. : DGP-309

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		7	63%	Light Brown		petroleum-like odor.			30	0.0	0.0	
				Brown		Fine-coarse SAND and fine GRAVEL. Heavy petroleum-like staining and coating. Moderate-strong petroleum-like odor.	SW-GW		48	0.0	0.0	
									60	0.0	0.0	
									60	0.0	0.0	
				Brown-Light Brown		Fine-coarse SAND, some fine-coarse gravel. Moderate petroleum coating and brown-clear petroleum staining from 33'-35'. Moderate petroleum-like odor, and brown liner staining from 33'-35'.	SW		18	0.0	0.0	
									30	0.0	0.0	
									70	0.0	0.0	
									44	1.0	0.0	
									70	0.0	0.0	
-35		8	57%	Light Brown		Fine-coarse SAND, some fine-coarse gravel. Light clear-brown colored petroleum staining, slight-moderate petroleum-like odor.			70	0.0	0.0	
									20	1.0	0.0	
									17	0.0	0.0	
									20	1.0	0.0	
									15	0.0	0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Boring hand cleared to 5' bgs.

BORING NO. : DGP-310

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~27' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/21/09

DIA. 2-inch

DATE FINISHED: 7/21/09

WT.

DRILLER: E. Moraitis

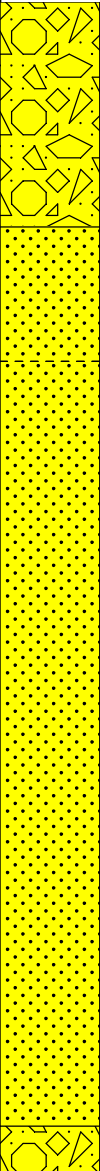
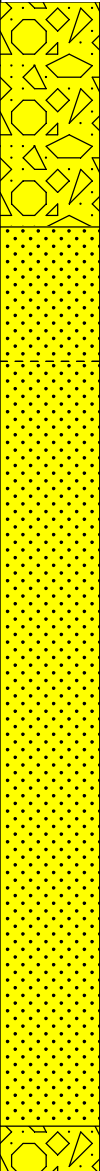
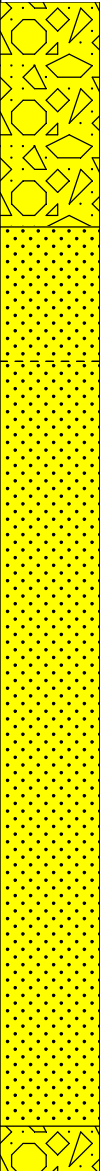
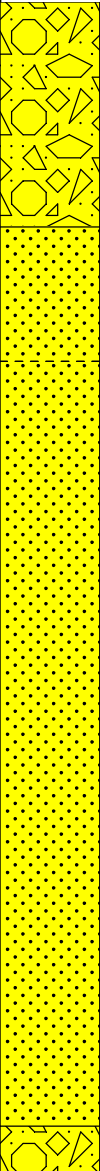
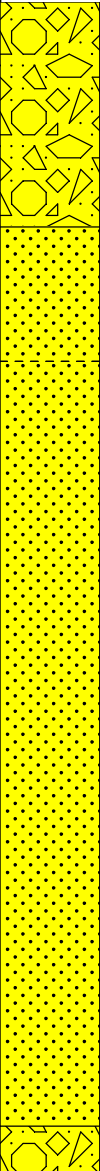
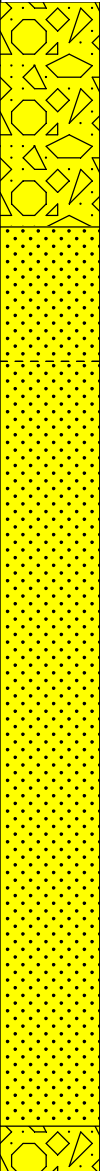
FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0 -5 -10 -15 -20 -25		1	N/A	Dark Brown	Loose	Loamy fine-coarse SAND and fine-coarse GRAVEL. No MGP impact.	SW-GW		0.0	0.0	0.0	Dry
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
		2	63%		Medium Dense	Fine-coarse SAND, some fine-coarse gravel and silt. No MGP impact.	SW		0.0	0.0	0.0	Moist
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
		3	70%	Orange-Light Brown	Loose	Fine-coarse SAND, some fine-coarse gravel. No MGP impact.			0.0	0.0	0.0	Dry
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
		4	80%						0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
		5	83%	Light Brown-Dark Brown					0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
		6	87%	Orange-Light	Loose-Medium	Fine-coarse SAND and fine GRAVEL.	SW-GW		4.0	0.0	0.0	Moist
									0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Boring hand cleared to 5' bgs.

BORING NO. : DGP-310

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
-30 <												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Boring hand cleared to 5' bgs.



TEST BORING LOG

BORING NO. : DGP-311

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 10' bgs.

BORING NO. : DGP-311

BORING NO. : DGP-312

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~34' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 7/1/09
 DATE FINISHED: 7/1/09
 DRILLER: Evan Moraitis
 GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0						No samples collected from 0'-15' bgs.						
-5												
-10												
-15		1	45%	Tan	N/A	Fine GRAVEL, little fine-coarse sand, trace silt. No MGP impacts.	GW		0.6	0.0	0.0	Dry
				Tan-Orange		Fine-coarse SAND, trace fine gravel and silt. No MGP impacts.	SW		0.8	0.0	0.0	
				Orange-Brown		Fine-coarse SAND, some fine-medium gravel, trace silt. No MGP impacts.			1.2	0.0	0.0	
-20		2	55%	Dark Brown		Fine-coarse SAND, trace silt and fine gravel. No MGP impacts.			0.5	0-1	0.0	
				Light Orange-Brown		Fine-coarse SAND and fine-medium GRAVEL, trace silt.	SW-GW		0.4	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-25		3	62%			-1.5" on black NAPL staining, strong naphthalene-like odor at 25'.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									2.6	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with cement-bentonite grout to grade.
 Sampling begins at 15' bgs.

BORING NO. : DGP-312

URS Corporation

TEST BORING LOG

BORING NO. : DGP-312

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 15' bgs.

BORING NO. : DGP-312

BORING NO. : DGP-313

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~35' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/1/09

DIA. 2-inch

DATE FINISHED: 7/1/09

WT.

DRILLER: Evan Moraitis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-	-		No samples collected from 0'-20'.						
-5												
-10												
-15												
-20		1	77%	Orange-Brown	N/A	Medium-coarse SAND, trace fine-coarse gravel, trace silt. No MGP impacts.	SW		0.0	0.0	0.0	Dry
-25		2	37%			Fine-coarse SAND, trace fine-coarse			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-313

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
---------------	--------	---------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

-30		3	45%			gravel. Faint naphthalene-like odor.			0.0	1.0	0.0	
									0.0	1.0	0.0	
									0.3	2.0	0.0	
									0.3	1.0	0.0	
									0.1	0.0	0.0	
						Fine-coarse SAND, trace fine-coarse gravel, trace silt. Faint naphthalene-like odor from 30'-31'.			0.1	1.0	0.0	
									0.0	3.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-35		4	35%	Light Brown		Fine-coarse SAND, little fine gravel, trace silt. No MGP impacts.			0.0	0.0	0.0	Wet
									0.0	0.0	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-314

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~34' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/7/09

DIA. 3.5-inch

DATE FINISHED: 7/7/09

WT.

DRILLER: Jan C.

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0
-5
-10
-15
-20
-25

No samples collected from 0' -20' bgs.

1	30%	Orange-Brown	N/A	Fine-coarse SAND, little fine gravel, trace silt. No MGP impacts.	SW	0.2	0.0	0.0
2	22%			Fine-medium SAND, little silt, trace		0.2	1.0	0.0
						0.1	1.0	0.0
						0.0	1.0	0.0
						0.0	0.0	0.0
						0.0	0.0	0.0

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-314

BORING NO. : DGP-315

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/7/09

DIA. 3.5-inch

DATE FINISHED: 7/8/09

WT.

DRILLER: Jan C.

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-10' bgs.						
-5												
-10		1	72%	Orange-Brown	N/A	Fine-coarse SAND and GRAVEL, trace silt. No MGP impacts.	SW		0.1	0.0	0.0	
				Light Orange-Brown					0.1	0.0	0.0	
									0.1	1.0	0.0	
									0.2	1.0	0.0	
									0.2	2.0	0.0	
-15		2	77%	Orange-Brown					0.1	0.0	0.0	
									0.1	0.0	0.0	
						Fine-coarse SAND, some fine gravel, trace silt. No MGP impact.			0.1	0.0	0.0	
									0.1	0.0	0.0	
									0.1	0.0	0.0	
-20		3	82%			Fine-coarse SAND, some fine gravel. No MGP impact.			0.1	1.0	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
-25		4	82%	Brown		Fine-coarse GRAVEL, some fine-coarse sand, trace silt. Faint	GW		N/A	N/A	N/A	Wet

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

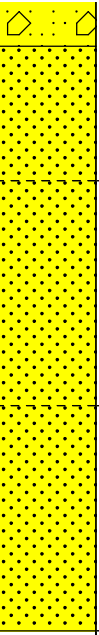
BORING NO. : DGP-315

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		5	77%	Orange-Brown		naphthalene-like odor. Fine-coarse SAND, little fine gravel. Faint naphthalene-like odor.	SW		N/A	N/A	N/A	
-35		6	77%	Light Brown		Fine-coarse SAND, little fine-coarse gravel. Faint naphthalene-like odor. Fine-coarse SAND, trace fine gravel. No MGP impact.			N/A	N/A	N/A	
-40						End of boring at 40' bgs.			0.0	0-1	0.0	
-45									0.0	0.0	0.0	
-50									0.0	0.0	0.0	
-55									0.0	0.0	0.0	

COMMENTS: Boring advanced with a 8040 DT Direct Push Geoprobe and sampled with a 3.5" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-316

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~35' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/7/09

DIA. 2-inch

DATE FINISHED: 7/7/09

WT.

DRILLER: Evan Moriatis

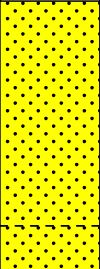
FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0						No samples collected from 0'-20' bgs.						
-5												
-10												
-15												
-20		1	63%	Orange-Brown	N/A	Fine-coarse SAND. No MGP impacts.	SW		0.0	0.0	0.0	
-25		2	53%	Dark Brown Orange-Brown		-some fine gravel. ----- Fine-coarse SAND, some fine gravel.			0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-316

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		3	57%			No MGP impacts.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.1	0-1	0.0	
									0.1	1.0	0.0	
									0.1	1.0	0.0	
									0.2	1.0	0.0	
									1.7	1.0	0.0	
-35		4	52%			Fine-coarse SAND, some fine gravel. No MGP impacts.			2.2	1.0	0.0	Wet
									1.7	0.0	0.0	
									2.1	1.0	0.0	
									2.7	1.0	0.0	
									2.5	1.0	0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-317

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~30' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/6/09

DIA. 2-inch

DATE FINISHED: 7/6/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-10' bgs.						
-10		1	82%	Orange-Brown	N/A	Fine-coarse SAND, some fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Moist
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
-15		2	72%	Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.		0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
-20		3	57%			Fine-medium SAND, trace fine gravel. No MGP impact.		0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
								0.0	0.0	0.0		
						-some fine gravel at 24'.		0.0	0.0	0.0		
-25		4	67%	Orange-Brown		Fine-coarse SAND, few fine-coarse		1.2	9.0	0.0		

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-317



TEST BORING LOG

BORING NO. : DGP-317

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 10' bgs.

BORING NO. : DGP-317

BORING NO. : DGP-318

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~28' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 7/21/09

DIA.

2-inch

DATE FINISHED: 7/22/09

WT.

DRILLER: Evan Moriatis

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: J. Boyd

DEPTH
FEET

STRATA

SAMPLE
NO.

REC%
RQD%

COLOR

SOIL
CONSISTENCY
ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

HCN

H2S

MOISTURE

0

-5

-10

-15

-20

-25

No samples collected from 0'-10'.

FILL. Bricks, mortar, sand and gravel.

Fine-coarse SAND, little fine-coarse gravel. Slight black NAPL staining at 14'-14.5', faint naphthalene-like odor from 14'-15'.

Fine-coarse SAND, trace fine gravel. Black-gray NAPL staining, slight-moderate naphthalene-like odor.

Fine-coarse SAND, some fine gravel from 21'-24'. Black-gray NAPL staining, moderate-strong naphthalene-like odor.

FILL

SW

1.0

2.0

8.0

12

20

8.0

21

26

30

26

26

32

50

61

40

2.0

0.0

0.0

0.0

0.0

0.0

1.0

1.0

1.0

2.0

2.0

0.0

0.0

0.0

0.0

0.0

0.0

Dry

COMMENTS: Boring advanced with a 6620 and 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Boring backfilled with cement-bentonite grout to grade.

Sampling begins at 10' bgs.

BORING NO. : DGP-318

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
-30 <												

COMMENTS: Boring advanced with a 6620 and 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-319

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~28' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/22/09

DIA. 2-inch

DATE FINISHED: 7/22/09

WT.

DRILLER: Evan Moriatis

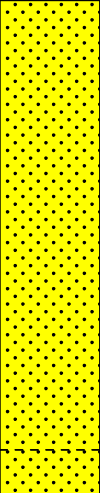
FALL

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-15'.							
-5													
-10													
-15		1	70%	Orange-Light Brown	Loose	Fine-coarse SAND, trace-little fine gravel. No MGP impact.	SW						
-20		2	70%										
-25		3	83%			Fine-coarse SAND, some fine gravel.							

COMMENTS: Boring advanced with a 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-319

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		4	97%			-lightly coated with clear petroleum-like material, slight petroleum-like odor from 29'-30'.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									16	0.0	0.0	
									25	0.0	0.0	
									40	0.0	0.0	
									12	0.0	0.0	
									8.0	0.0	0.0	
									3.0	0.0	0.0	
-35		5	80%	Light Brown		Fine-coarse SAND, trace-little fine gravel. Lightly coated with clear-oily petroleum-like material, slight petroleum-like odor.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-40						End of boring at 40' bgs.						
-45												
-50												
-55												

COMMENTS: Boring advanced with a 6610 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 15' bgs.

BORING NO. : DGP-320

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 9/28/09

DATE FINISHED: 9/28/09

DRILLER: Luke

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0		1	100%	Dark Brown	N/A	Fine-coarse SAND, trace silt and gravel. No MGP impact.	SW-SM		0.0	0.0	N/A	Moist
-5		2	45%	Light Brown		Fine-medium SAND, trace silt and fine gravel. No MGP impact.			0.4	0.0		
				Brown		Fine gravel, trace coarse sand. No MGP impact.	GP SW-SM		0.7	0.0		
-10		3	53%	Light Brown		Fine-medium SAND, trace silt and gravel. No MGP impact.			1.1	0.0		
									0.1	0.0		
									0.2	0.0		
									0.4	0.0		
									0.7	0.0		
									0.8	0.0		
-15		4	53%			Fine-medium SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0		
									0.0	0.0		
									0.0	0.0		
									0.4	0.0		
									0.6	0.0		
-20		5	53%	Light Brown-Gray		Fine GRAVEL, some fine-coarse sand. Faint burnt plastic odor.	GW		0.3	0.0		
									1.6	0.0		
									1.5	0.0		
									7.1	0.0		
									6.2	0.0		
-25		6	70%	Gray		Fine GRAVEL, trace medium-coarse sand. Moderate burnt plastic odor.	GW SW		0.2	1.0		Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.

BORING NO. : DGP-320



TEST BORING LOG

BORING NO. : DGP-320

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with bentonite grout to grade.

BORING NO. : DGP-320

BORING NO. : DGP-321

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 9/25/09

DATE FINISHED: 9/25/09

DRILLER: Evan Moriatis

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0												
-5												
-10												
-15												
-20		1	63%	Orange-Brown	Loose	Fine-coarse SAND, intervals of trace-little fine-coarse gravel. No MGP impact.	SW		0.0	0.0	0.0	Moist
-25		2	60%		Loose-Medium	Fine-coarse SAND, little fine gravel.	SW		0.1	0.0	0.0	Wet

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-321

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		3	87%	Light Brown	Dense	-petroleum-like odor from 28'-30'.	SP		1.0	0.0	0.0	
									10	0.0	0.0	
									25	0.0	0.0	
									40	1.0	0.0	
									3.0	0.0	0.0	
									96	0.0	0.0	
									404	22	0.0	
									20	8.0	0.0	
									10	2.0	0.0	
-35		4	83%	Gray	Dense- Very Dense	Fine-medium SAND, some fine gravel. Slight naphthalene-like odor.	SW		6.0	2.0	0.0	
									4.0	2.0	0.0	
					Loose- Medium Dense	Fine SAND. Faint naphthalene-like odor.	SP		5.0	1.0	0.0	
									2.0	1.0	0.0	
									2.0	0.0	0.0	
-40		5	93%	Brown- Gray	Medium Dense	Fine-coarse SAND, some fine-coarse gravel. Very faint naphthalene-like odor.	SW		0.0	0.0	0.0	
									1.0	0.0	0.0	
									2.0	0.0	0.0	
									2.0	0.0	0.0	
									2.0	0.0	0.0	
-45						End of boring at 45' bgs.						
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

<div>URS Corporation</div>										TEST BORING LOG						
										BORING NO. :		DGP-322				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 2				
CLIENT: National Grid										JOB NO. :		11175065.00011				
BORING CONTRACTOR: Zebra										BORING LOCATION:		N/A				
GROUNDWATER: ~25' bgs						CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:N/A						
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 9/24/09							
				DIA.		2-inch			DATE FINISHED: 9/24/09							
				WT.					DRILLER: Luke							
				FALL					GEOLOGIST: J. Harshman							
* POCKET PENETROMETER READING										REVIEWED BY:						
DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION			USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE		
0																
-5																
-10																
-15																
-20		1	50%	Orange-Brown	Loose	Fine-coarse SAND, little fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry				
									0.0	1.0	0.0					
									0.0	0.0	0.0					
									0.0	1.0	0.0					
									0.0	0.0	0.0					
-25		2	0%	Light Brown		Fine-medium SAND, little fine gravel	SW		0.0	0.0	0.0	Wet				
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with bentonite grout to grade. Sampling begins at 20' bgs.																
										BORING NO. : DGP-322						

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
						from 28'-29'. No MGP impact.			0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-30		3	88%		Medium Dense	Fine SAND. Moderate-heavy black NAPL staining, sheen and strong naphthalene-like odor. NAPL saturation from 31.5'-32'.	SP		50	8.0	0.0	
									285	30	1.0	
							SP		40	23	1.0	
						Fine SAND. Moderate sheen and naphthalene-like odor.			30	5.0	0.0	
									20	2.0	0.0	
-35		4	83%		Medium Dense- Dense	Fine-coarse SAND and GRAVEL. Slight sheen and naphthalene-like odor.	SW-GW		7.0	1.0	0.0	
									7.0	0.0	0.0	
									11	0.0	0.0	
					Medium Dense	Fine-coarse SAND, trace-little fine gravel. Faint naphthalene-like odor.	SW		15	0.0	0.0	
-40		5				No description noted.	NONE		7.0	0.0	0.0	
-45						End of boring at 45' bgs.						
-50												
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

<div>URS Corporation</div>										TEST BORING LOG						
										BORING NO. :		DGP-323				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 2				
CLIENT: National Grid										JOB NO. :		11175065.00011				
BORING CONTRACTOR: Zebra										BORING LOCATION:		N/A				
GROUNDWATER: ~20' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:N/A							
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 9/24/09							
				DIA.		2-inch			DATE FINISHED: 9/24/09							
				WT.					DRILLER: Luke							
				FALL					GEOLOGIST: J. Harshman							
					* POCKET PENETROMETER READING			REVIEWED BY:								
DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION			USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE		
0																
-5																
-10																
-15																
-20		1	70%	Brown-Light Brown	Loose	Fine-coarse SAND, little-some fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Wet				
-25		2	90%		Loose-Medium	Fine SAND, trace fine gravel. No	SP		0.0	0.0	0.0					
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Boring backfilled with bentonite grout to grade. Sampling begins at 20' bgs.																
										BORING NO. : DGP-323						

BORING NO. : DGP-323

BORING NO. : DGP-324

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.		Macrocore		
				2-inch				
				WT.				
				FALL				

DATE STARTED: 9/23/09

DATE FINISHED: 9/23/09

DRILLER: Luke

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
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0												
-5												
-10		1	47%	Brown- Light Brown	Loose	Fine-medium SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Dry
-15		2	58%	Orange- Light Brown		Fine-coarse SAND, trace fine gravel. No MGP impact.			0.0	0.0	0.0	Moist - Wet
-20		3	67%		Loose- Medium Dense	Fine SAND, trace medium sand and fine gravel. No MGP impact.	SP		0.0	0.0	0.0	Wet
-25		4	0%	Light Brown	Medium Dense				0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 10' bgs.

BORING NO. : DGP-324

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
			RQD%		ROCK HARDNESS							
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COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
 Boring backfilled with bentonite grout to grade.
 Sampling begins at 10' bgs.

BORING NO. : DGP-325

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 9/23/09

DATE FINISHED: 9/23/09

DRILLER: Luke

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
---------------	--------	---------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0												
-5												
-10												
-15												
-20		1	67%	Orange- Light Brown	Loose	Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Wet
-25		2	73%	Light Gray-	Loose- Medium	Fine SAND, trace fine gravel.	SP		0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-325

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		3	67%	Light Brown	Dense	-faint naphthalene-like odor from 27'-30'.			0.0	0.0	0.0	
									0.5	0.0	0.0	
									0.2	0.0	0.0	
									0.0	0.0	0.0	
							SW-GW		7.0	1.0	0.0	
						Fine-coarse SAND and GRAVEL. Faint naphthalene-like odor.			7.0	2.0	0.0	
									3.0	1.0	0.0	
									3.0	1.0	0.0	
-35		4	60%	Brown-Orange	Medium Dense	Fine-medium SAND, trace-little fine gravel. Faint naphthalene-like odor.	SW		2.0	1.0	0.0	
				Light Brown					10	1.0	2.0	
						Fine-medium SAND, some-trace fine gravel, trace silt from 36'-39'. Faint naphthalene-like odor.			12	2.0	4.0	
									7.0	1.0	3.0	
									7.0	1.0	2.0	
									6.0	1.0	1.0	
-40		5	48%						0.9	1.0	0.0	
						Fine-coarse SAND, little-trace fine gravel. Faint naphthalene-like odor.			0.9	0.0	0.0	
									1.0	0.0	0.0	
									0.7	0.0	0.0	
									0.7	0.0	0.0	
-45		6	53%						0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-50						End of boring at 50' bgs.						
-55												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : DGP-326

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 9/22/09

DATE FINISHED: 9/22/09

DRILLER: Luke

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY:

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
---------------	--------	---------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0												
-5												
-10												
-15												
-20		1	53%	Orange-Brown	Medium Dense	Fine-coarse SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0	0.0	Wet
-25		2	63%	Light Brown	Loose-Medium	Fine SAND. Moderate black NAPL	SP		0.0	0.0	0.0	
									0.3	0.0	0.0	

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

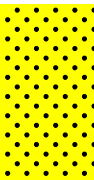








BORING NO. : DGP-326

PROJECT: National Grid MGP PDI, Hempstead, New York

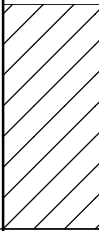
SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>		3	57%	Light Gray- Brown	Dense	staining, sheen and coating, moderate naphthalene-like odor from 26'-28'. Slight NAPL sheen and slight naphthalene-like odor from 28'-30'.			10	0.0	0.0	
					20			0.0	0.0			
								5.0	0.0	0.0		
					3.0			0.0	0.0			
			0.3	0.0	0.0							
			0.2	0.0	0.0							
			0.1	0.0	0.0							
			0.0	0.0	0.0							
		4	58%	Light Brown	Medium Dense- Dense	Fine-coarse SAND and GRAVEL. No MGP impact. -faint naphthalene-like odor from 35'- 38'.	SW-GW		0.0	0.0	0.0	
					0.0			0.0	0.0			
								0.0	0.0	0.0		
					0.0			0.0	0.0			
						Medium Dense	Fine-medium SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0	0.0
						0.0			0.0	0.0		
<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>						End of boring at 40' bgs.						

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with bentonite grout to grade.
Sampling begins at 20' bgs.

<div> <div>URS Corporation</div> <div>TEST BORING LOG</div> </div>										BORING NO. :		GC-B15		
										PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York		SHEET:		1 OF 1
CLIENT: National Grid										JOB NO. :		11175065.00011		
BORING CONTRACTOR: Zebra										BORING LOCATION:		N/A		
GROUNDWATER: N/A					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Hand Auger			DATE STARTED: 9/23/09					
				DIA.		2-inch			DATE FINISHED: 9/23/09					
				WT.					DRILLER: K. Kegel					
				FALL					GEOLOGIST: J. Harshman					
* POCKET PENETROMETER READING										REVIEWED BY:		K. Connare		
DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION			USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
0		1	100%	Brown	Medium Dense	FILL. Loamy sand. Grades to gravel and sand . No MGP impacts.		FILL		0.0	NM	NM	Dry	
		2	100%											
		3	100%											
		4	100%											
		5	100%											
-5														
-10														
-15														
-20														
-25														
<div> <div>COMMENTS: Hand Auger used to collect subsurface samples at 1' intervals and advance borehole to 5' bgs.</div> <div>Geoprobe rig used to make a hole in asphalt at surface.</div> </div>														
BORING NO. : GC-B15														

BORING NO. : GTB-101

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: LIRR ROW

GROUNDWATER: ~26' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE	HSA	Split-spoon		
				DIA.	4 1/4"	2"		
				WT.		140 lbs		
				FALL		30"		

DATE STARTED: 9/18/08

DATE FINISHED: 9/18/08

DRILLER: Charlie

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					

0		1	1 1 1 2	0%			Borehole hand-cleared from 0'-5' bgs.				
		2	1 1 1 2	0%							
-5		3	2 2 4 6	92%	Gray	Loose	Fine SILTY SAND, trace medium sand. Slight petroleum odor. Black staining from 5'-6'.	SM		50- 60	Dry 0.0
		4	5 11 16 18	92%	Black	Medium Dense				50- 80	Moist 1.0
		5	9 15 19 16	58%	Brown	Dense	Fine-coarse SAND, trace fine gravel. -petroleum odor from 6.5'-8'. -petroleum odor and light coating from 8'-14'. -some fine-coarse gravel from 8'-10'.	SW		60- 105	
-10		6	7 10 14 16	67%	Light Brown-Brown	Medium Dense				30- 70	Moist- Dry 0-1
		7	11 11 11 11	50%			-petroleum odor from 14'-16'.			50- 70	Dry 1.0
-15		8	9 7 11 10	67%						10- 50	0-1
		9	6 9 10 12	83%			Fine-coarse SAND, trace fine gravel.			2- 20	Moist
		10	5 5 6 8	75%			-thin lenses of black petroleum staining, petroleum odor from 17.5'-22'.			30- 50	Moist- Dry 0-1
-20		11	7 9 10 12	75%						50- 60	
-25		12	8 10	67%			Fine-coarse SAND, some fine-coarse			60- 90	0-2

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Soil samples collected for grain size analysis (4'-7', 7'-20', and 20'-40'). Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-4' bgs.

BORING NO. : GTB-101

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
			11 12				gravel. Some black staining and moderate naphthalene-like odor from 25'-27'.				Wet
-30		13	8 8 11 15	100%	Light Brown-Gray		Medium-coarse SAND and fine-coarse GRAVEL. Black NAPL staining and coating from 30'-31'. Black NAPL staining, slight coating, and moderate naphthalene-like odor from 31'-32'.	SW-GW		20-350	0-3
-35		14	12 9 9 15	67%	Light Gray		Fine-coarse SAND and GRAVEL. Heavy NAPL coating, blebs, strong naphthalene-like odor. NAPL saturation at 36.5'.			25-200	0-2
							Fine-coarse SAND, little fine gravel, trace cobbles. Some black NAPL staining, slight naphthalene-like odor from 36.5-37'.	SW			
-40		15	11 11 11 20	100%	Light Brown		Fine-coarse SAND and GRAVEL. Thin intervals of black NAPL staining. Slight naphthalene-like odor.	SW-GW		4- 10	0-1
							Fine-medium SAND. No MGP impact.	SP			
							End of boring at 42' bgs.				
-45											
-50											
-55											

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Soil samples collected for grain size analysis (4'-7', 7'-20', and 20'-40'). Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-4' bgs.

URS Corporation								TEST BORING LOG							
								BORING NO. :	HISB-102						
PROJECT/PROJECT LOCATION:								SHEET:	1 OF 3						
CLIENT:								JOB NO. :	11175065.00011						
BORING CONTRACTOR:								BORING LOCATION:	Smith Street						
GROUNDWATER:								CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:			N/A
DATE	TIME	LEVEL	Type	Type		Macrocore			DATE STARTED:		12/12/08				
			DIA.			2-inch			DATE FINISHED:		12/12/08				
			WT.						DRILLER:		M. Meade				
			FALL						GEOLOGIST:		J. Harshman				
*									POCKET PENETROMETER READING		REVIEWED BY:			K. Connare	
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP	PID	MOISTURE				
		NO.	BLOW COUNT	RQD%		CONSISTENCY			ROCK HARDNESS	COLOR CODE	HCN				
0						No Soil Sampling to 25' bgs.					No Sampling				
-5															
-10															
-15															
-20															
-25		1	-	67%	Light Brown-	Loose	GRAVELLY SAND. Faint	SW-GW		0.0	Moist 0.0				
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade.															
BORING NO. : HISB-102															

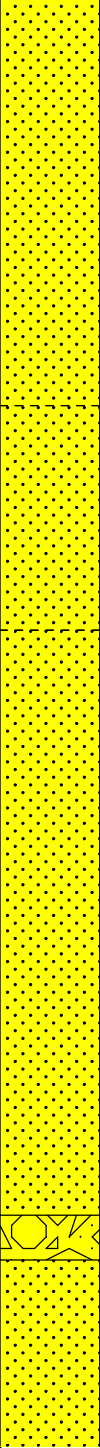
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
					Orange		naphthalene-like odor.				
-30		2	-	100%	Light Brown	Medium Dense Loose	Fine SAND. No MGP impact. -Faint naphthalene-like odor from 30'-32'.	SP		0.0 10	0.0
						Medium Dense	Fine-coarse SAND, some gravel. No MGP impact.	SW		0.1	
-35		3	-	92%	Light Brown-Gray	Loose Loose-Medium Dense	Fine-coarse SAND. Slight naphthalene-like odor. -little fine-medium gravel at 35'-39'. Slight naphthalene-like odor from 35'-40'.	SP		0.0 0.3 6.5 9.0 1.7 7.0 6.0	Wet 0.0 1.0 0.0
-40		4	-	100%	Light Gray	Loose	Fine-coarse SAND. Slight naphthalene-like odor.			4.5 3.5 5.0 6.0	0.0
-45		5	-	100%	Light Brown-Gray		Fine-coarse SAND, little fine-coarse gravel. Faint naphthalene-like odor.	SW		7.0 5.0 6.0 8.0 7.0	0.0
-50		6	-	100%	Light Brown	Loose-Medium Dense				2.0 3.0 5.0 4.0 2.0	0.0
-55		7	-	100%	Light Brown-Orange	Loose	Fine-coarse SAND, little fine-medium gravel. No MGP impact.			0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.

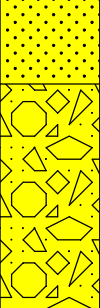
DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		8	-	100%	Light Brown	Medium Dense				1.0	0.0
-65		9	-	100%			Fine SAND, trace clay and silt. No MGP impact.	SM		0.0	0.0
-70		10	-	100%		Loose-Medium Dense	Fine SAND. No MGP impact.	SP		0.0	0.0
-75		11	-	N/A	White-Light Gray	Medium Dense	Fine SAND, trace silt. No MGP impact.	SM		0.0	0.0
-80		12	-	100%	Light Gray					0.0	0.0
-85					Orange-Brown						
-90							End of boring at 85' bgs.				

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.

<div>URS Corporation</div>										TEST BORING LOG				
										BORING NO. :		HISB-104		
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 3		
CLIENT: National Grid										JOB NO. :		11175065.00011		
BORING CONTRACTOR: F + N										BORING LOCATION:		Smith & Seely Streets		
GROUNDWATER: ~26' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION: N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 9/24/08					
				DIA.		2-inch			DATE FINISHED: 9/25/08					
				WT.					DRILLER: Kevin					
				FALL					GEOLOGIST: J. Harshman					
				* POCKET PENETROMETER READING				REVIEWED BY: K. Connare						
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0							Borehole hand cleared from 0'-5' bgs. No sample collected.							
-5														
-10														
-15														
-20		1	-	63%	Light Brown	Loose	Fine-coarse SAND, little fine-medium gravel. No MGP impact.	SW		0.0	Dry 0.0			
-25		2	-	67%		Medium Dense	Fine-coarse SAND, some fine-coarse			0.2 0.0	Wet 0.0			
<div>COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs. No samples collected until 20' bgs. Grain size sample collected from 30'-35' and 55'-60'. Discrete groundwater samples collected at 30'-34', 45'-49', and 55'-59'.</div>														
<div>BORING NO. : HISB-104</div>														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		3	-	78%		Loose-Medium Dense	gravel, trace silt at 25.5'. No MGP impact.			0.2 0.3 0.0	0.0
-35		4	-	97%			Fine-coarse SAND, intervals of fine-coarse gravel. No MGP impact.			0.0	0.0
-40		5	-	87%		Loose	Fine-coarse SAND, trace fine-medium gravel. No MGP impact.			0.0	0.0
-45		6	-	85%		Medium Dense				0.0	0.0
-50		7	-	90%						0.0	0.0
-55		8	-	80%		Loose-Medium Dense	Fine-coarse SAND, some fine-medium gravel. No MGP impact.	SW		0.0	0.0
					Black		Fine-coarse SAND and GRAVEL. No MGP impact.	SW-GW			
					Brown						

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs. No samples collected until 20' bgs. Grain size sample collected from 30'-35' and 55'-60'. Discrete groundwater samples collected at 30'-34', 45'-49', and 55'-59'.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		9	-	87%			Fine-coarse SAND and GRAVEL, subangular-subrounded. No MGP impact.	SW-GW		0.0	0.0
-65		10	-	93%			Fine-medium SAND. No MGP impact. -clay lense from 67'-67.2'.	SW		0.0	0.0
-70			-				End of boring at 70' bgs.				
-75											
-80											
-85											
-90											

COMMENTS: Boring advanced with a 7720 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs. No samples collected until 20' bgs. Grain size sample collected from 30'-35' and 55'-60'. Discrete groundwater samples collected at 30'-34', 45'-49', and 55'-59'.

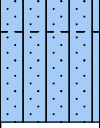
URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : HISB-106				
CLIENT: National Grid										SHEET: 1 OF 4				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: <25' bgs										BORING LOCATION: Atlantic Avenue				
CAS. HSA										GROUND ELEVATION: N/A				
SAMPLER Split-spoon										DATE STARTED: 12/17/08				
CORE										DATE FINISHED: 12/19/08				
TUBE										DRILLER: C. Gazardo				
DATE										GEOLOGIST: M. Dascoli				
TIME										REVIEWED BY: K. Connare				
LEVEL														
TYPE														
TYPE														
DIA. 4 1/4"														
WT. 140 lbs														
FALL 30"														
* POCKET PENETROMETER READING														
DEPTH FEET														
STRATA														
SAMPLE NO.														
BLOW COUNT														
REC% RQD%														
COLOR														
SOIL CONSISTENCY														
ROCK HARDNESS														
MATERIAL DESCRIPTION														
USCS														
MGP COLOR CODE														
PID														
REMARKS														
0										Borehole drilled to 25' bgs for first sample. No sample collected.				
-5														
-10														
-15														
-20														
-25														
1										1, 3				
17%										Light Brown				
Medium Dense										Fine-coarse SAND, some fine gravel.				
SW										0.0				
Wet 0.0														
COMMENTS: Boring advanced with a Canterra CT-450 Drill Rig and 6 1/4" hollow-stem augers. Sampled with 2" diameter split-spoon.														
BORING NO. : HISB-106														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
-30			9, 16				No MGP impact.				
		2	5, 7	88%							
			5, 14								
		3	5, 6	46%						1.2	0-1
-35			7, 14								
		4	12, 9	63%			Fine-coarse SAND and GRAVEL. No MGP impact.			0.0	0.0
			10, 18					SP			
		5	40, 24	63%		Dense	Fine SAND, trace fine gravel. No MGP impact.	GW			
-40			14, 15				Fine-medium GRAVEL, few fine sand. No MGP impact.	SP			
		6	3, 2	46%		Loose	Fine SAND, trace fine gravel. No MGP impact.	SW		0.0	0.0
			5, 8								
		7	2, 5	58%		Medium Dense	Fine-coarse SAND and GRAVEL. No MGP impact.				
-45			10, 22		Black		Fine-coarse SAND, trace-some fine-medium gravel. No MGP impact.	GW			
		8	8, 6	54%	Gray			SW		0.0	0.0
			10, 12								
		9	9, 3	58%		Loose	Fine-coarse GRAVEL, some fine sand. Slight naphthalene-like odor and black staining 38.5'-39'.				
-50			3, 10								
		10	2, 1	58%			Fine-coarse SAND, trace fine-coarse gravel. Burnt Plastic/naphthalene-like odor and staining.				
			4, 12								
		11	6, 12	100%	Gray-Brown	Dense	-slight burnt plastic/naphthalene-like odor.			0.0	0.0
-55			20, 25								
		12	7, 5	75%		Medium Dense					
			10, 16								
		13	21, 32	50%		Very Dense				0.0	0.0
			18, 24								
		14	14, 12	67%		Medium Dense	Fine-coarse GRAVEL, few fine sand. Slight burnt plastic/naphthalene-like odor.	GW			
			10, 25					SW			
		15	7, 3	42%	Light Brown	Loose	Fine-medium SAND, trace fine-coarse gravel. Slight burnt plastic/naphthalene-like odor.				
			3, 9								
		16	6, 4	58%			Fine SAND, trace fine gravel. Slight burnt plastic/naphthalene-like odor.	SP		0.0	0.0
			6, 12								
		17	18, 20	71%		Very Dense					

COMMENTS: Boring advanced with a Canterra CT-450 Drill Rig and 6 1/4" hollow-stem augers.
Sampled with 2" diameter split-spoon.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
-60			20, 26							0.3	0-1
		18	14, 9	58%		Medium Dense				0.8	3.0
			15, 30		Light Gray					0.4	0.0
		19	8, 6	75%			Fine-coarse SAND, trace fine gravel. Faint burnt plastic/naphthalene-like odor.			0.0	
			10, 18							0.3	
		20	12, 6	92%	Light Brown					0.0	
			6, 14								
-65		21	7, 4	100%			Fine-medium SAND. Faint burnt plastic/naphthalene-like odor.			1.9	0.0
			8, 18								
		22	20, 38	100%			-trace silt. -some fine-coarse gravel.			2.3	
			25, 36								
-70		23	12, 18	17%			Fine SAND, few silt and trace fine gravel. Faint burnt plastic/naphthalene-like odor.	SM		0.3	0.0
			38, 38								
		24	12, 22	58%			Fine SAND, trace silt from 71'-73'.			0.5	
			38, 46								
		25	3, 6	88%		Medium Dense	-burnt plastic/naphthalene-like odor from 73'-74'.			0.0	
			11, 16		Light Gray		-interbedded clay and silt layers.				
-75		26	38, 22	92%	Light Brown	Dense	Fine SAND. No MGP impact, no odors.	SP		0.0	0.0
			20, 26								
		27	17, 6	100%		Medium Dense					
			12, 25				-interbedded layers of clay and silt from 78.5'-79'.				
-80		28	6, 8	58%	Light Gray					0.0	0.0
			10, 28								
		29	8, 5	92%			-trace coarse gravel.				
			6, 16								
		30	12, 6	50%			Fine SAND. No MGP impact.				
			12, 22								
-85		31	8, 4	100%	Brown					0.0	0.0
			8, 20								
		32	7, 7	79%	Light Gray		-interbedded layers of clay and silt from 87.5'-88.5'.				
			8, 24								
-90		33	6, 7	50%	Light Brown		Fine SAND, little clay and silt. No MGP impact.	SM		0.0	0.0
			10, 23								

COMMENTS: Boring advanced with a Canterra CT-450 Drill Rig and 6 1/4" hollow-stem augers.
Sampled with 2" diameter split-spoon.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
		34	6, 6 4, 12	29%	Light Gray	Loose	Fine SAND, few silt. No MGP impact.				
-95							End of boring at 93' bgs.				
-100											
-105											
-110											
-115											
-120											

COMMENTS: Boring advanced with a Canterra CT-450 Drill Rig and 6 1/4" hollow-stem augers.
Sampled with 2" diameter split-spoon.

URS Corporation									TEST BORING LOG					
									BORING NO. :		HISB-108			
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York									SHEET:		1 OF 3			
CLIENT: National Grid									JOB NO. :		11175065.00011			
BORING CONTRACTOR: F + N									BORING LOCATION:		Mirschel Park			
GROUNDWATER: ~25' bgs					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION: N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED:		12/12/08			
				DIA.		2-inch			DATE FINISHED:		12/16/08			
				WT.					DRILLER:		K. Kegel			
				FALL					GEOLOGIST:		M. Dascoli			
					* POCKET PENETROMETER READING				REVIEWED BY:		K. Connare			
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0							No samples taken to 25' bgs. Soil hand cleared from 0'-5'.							
-5							No samples taken. Drilled from 5'-25'.							
-10														
-15														
-20														
-25		1	-	50%	Orange-Brown	N/A	Fine-coarse SAND, some fine-coarse	SW		0.0	Wet 0.0			
COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore. Borehole backfilled with cement-bentonite grout to grade.														
								BORING NO. : HISB-108						

PROJECT: National Grid MGP PDI, Hempstead, New York

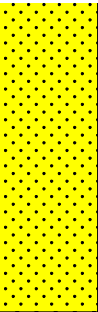
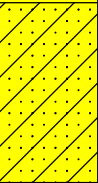
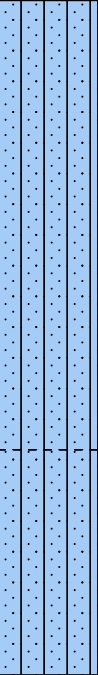
SHEET: 2 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
							gravel, trace silt. No MGP impact.				
					Brown						
-30		2	-	70%	Light Brown-Orange		Fine-coarse SAND, some-little fine-coarse gravel. No MGP impact.			0.0	0.0
-35		3	-	78%	Light Brown					0.0	0.0
-40		4	-	97%						0.1	0.0
-45		5	-	97%						0.0	0.0
-50		6	-	97%						0.0	0.0
-55		7	-	97%						0.0	0.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		8	-	75%						0.0	0.0
-65		9	-	97%			Fine-medium SAND. No MGP impact.	SP		0.0	0.0
-70		10	-	97%						4.0	0.0
-75		11	-	57%			Fine-medium SAND, trace clay lenses. No MGP impact.	SC		0.0	0.0
-80		12	-	97%			Fine-medium SAND, few-trace silt, trace clay lenses. No MGP impact.	SM		0.0	0.0
-85		13	-	97%	Brown Black Light Gray	Hard	-gray banding and some clay seams from 84'-85'.			0.0	0.0
-90							Fine SAND, some silt. No MGP impact.				
							End of boring at 90' bgs.				

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.

BORING NO. : HISB-110

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Intersection Street

GROUNDWATER: ~29' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE	TIME	LEVEL	TYPE	TYPE		Macrocore		
				DIA.		2-inch		
				WT.				
				FALL				

DATE STARTED: 10/30/08

DATE FINISHED: 10/30/08

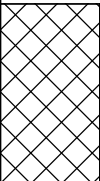
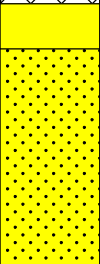
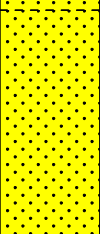
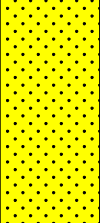
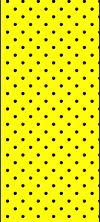
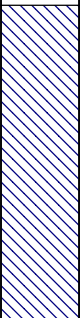

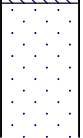


DRILLER: B. Rath

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN

0		1	-	100%	Black	Loose	FILL. Fine-coarse sand, coal fragments, fine-medium gravel. No MGP impact.	FILL		0.0	Dry 0.0
-5		2	-	80%	Brown	Stiff	SILT.	ML		0.0	Moist
-10		3	-	73%	Tan-Light Gray	Loose	Fine-coarse SAND, little-some fine-medium gravel. No MGP impact.	SW		0.0	Dry 0.0
-15		4	-	65%	Light Brown	Loose-Medium Dense	Fine-coarse SAND, trace fine-medium gravel. No MGP impact.			0.0	0.0
-20		5	-	67%	Light Gray	Loose-Medium Dense	-intervals of black petroleum staining, several thin 0.25" seams of black staining, moderate petroleum odor from 16'-20'.			50	0.0
-25		6	-	62%	Tan-Light Gray	Loose	-moderate black staining at 20'-23', moderate petroleum odor.			80	1.0
										100	
										120	1.0

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-110

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30 <											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-111

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Intersection Street

GROUNDWATER: ~28-29' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 10/30/08

DIA.

2-inch

DATE FINISHED: 10/30/08

WT.

DRILLER: B. Rath

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE

NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

0

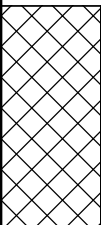
-5

-10

-15

-20

-25



1

-

100%

Dark
Brown

Loose

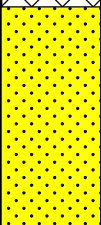
FILL. Fine-medium silty sand, some
fine-coarse gravel.

FILL

0.0

Moist
0.0

-black staining and slight petroleum
odor at 5'.



2

-

62%

Tan-
Light
Gray

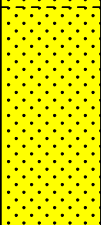
Brown

Fine-medium SAND, little fine-medium
gravel. Black staining and petroleum
odor from 5'-6'. Thin seams of black
petroleum staining with faint
petroleum odor from 7.5'-8'.

SW

1.0

Dry
0.0



3

-

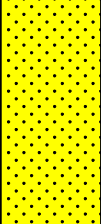
67%

Light
Brown

Fine-coarse SAND, little fine-medium
gravel. Intervals of black staining,
faint petroleum odor.

5-10

0.0



4

-

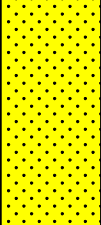
60%

Tan-
Light
Gray

-numerous thin seams of black
staining from 15'-18' with moderate
petroleum odor.

20

0.0



5

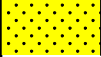
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60%

-black staining with moderate
petroleum odor from 20'-22', light
coating of grains.

100

0.0



6

-

55%

Light
Brown

-trace black staining from 25'-26',
lightly coated with strong petroleum
odor.

100-
200

0-1

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-111

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	55%			Fine-medium SAND, little fine-medium gravel. Black staining and slight coating, moderate naphthalene-like odor.			150-200	Wet 1-2
-35		8	-	52%	Light Gray	Loose-Medium Dense	Fine-coarse SAND, trace-little fine gravel. Brown staining, trace NAPL coating, faint naphthalene-like odor from 35'-37'.			250 15 10 5.0	1.0 0.0
-40		9	-	65%	Light Brown		Fine-medium SAND, trace fine-medium gravel. No MGP impact.			0.0	0-1
-45		10	-	60%						0.0	0.0
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-112

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Intersection Street

GROUNDWATER: ~28-29' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 10/31/08

DIA.

2-inch

DATE FINISHED: 10/31/08

WT.

DRILLER: B. Rath

FALL

GEOLOGIST: J. Harshman

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO.

BLOW
COUNT

REC%
RQD%

COLOR

SOIL
CONSISTENCY
ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE
HCN

0

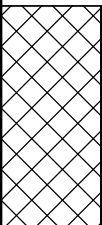
-5

-10

-15

-20

-25



1

-

100%

Dark Brown

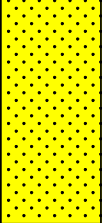
Loose-Medium Dense

FILL. Loamy fine sand, some silt. No MGP impacts.

FILL

0.0

Moist 0.0



2

-

68%

Light Brown

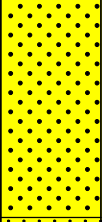
Loose

Fine-coarse SAND, some fine-medium gravel. No MGP impact.

SP

2.0

Moist- Dry 0.0



3

-

58%

Light Gray-Light Brown

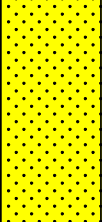
Loose

Fine-medium SAND, trace fine gravel. No MGP impact.

SW

3.0

Dry 0.0



4

-

57%

Light Gray-Light Brown

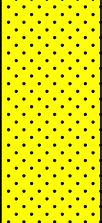
Loose

Fine-coarse SAND, trace-little fine-medium gravel. Light coating of petroleum, moderate petroleum odor from 15'-25'.

SP

70

0.0



5

-

55%

Light Gray-Light Brown

Medium Dense

-heavy coating of clear oil and strong petroleum odor from 25'-32'

SP

130

0-1



6

-

58%

Light Gray-Light Brown

Medium Dense

-heavy coating of clear oil and strong petroleum odor from 25'-32'

SP

106

0-1

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-112

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	62%			-black staining at 28'.			112	
										140	
										107	Wet
										104	
										86	0-1
										170	
							Fine-coarse SAND, little fine-medium gravel. Brown NAPL staining and slight coating.			120	
-35		8	-	N/A		Loose	Fine-coarse SAND, trace fine-medium gravel. Faint naphthalene-like odor.	SW		112	
										6.0	
										7.0	0.0
										10	
-40		9	-	N/A	Brown- Light Brown		Fine-medium SAND, trace fine-medium gravel. No MGP impact noted.			7.0	
										1.0	0.0
										2.0	
										0.0	
-45		10	-	N/A						0.0	0.0
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-113

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 2

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: Intersection Street

GROUNDWATER: ~30' bgs

CAS.

SAMPLER

CORE

TUBE

GROUND ELEVATION: N/A

DATE

TIME

LEVEL

TYPE

TYPE

Macrocore

DATE STARTED: 10/31/08

DIA.

2-inch

DATE FINISHED: 10/31/08

WT.

DRILLER: K. Kegel

FALL

GEOLOGIST: M. Dascoli

REVIEWED BY: K. Connare

DEPTH
FEET

STRATA

SAMPLE
NO.

BLOW
COUNT

REC%

RQD%

COLOR

SOIL
CONSISTENCY

ROCK
HARDNESS

MATERIAL
DESCRIPTION

USCS

MGP
COLOR
CODE

PID

MOISTURE

HCN

0

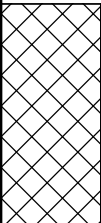
-5

-10

-15

-20

-25



1

-

100%

Dark Brown

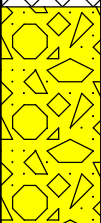
Medium Dense

FILL. Fine-medium SAND, some clay, trace fine-medium angular gravel. No MGP impacts.

FILL

0.0

Moist
0.0



2

-

82%

Light Brown

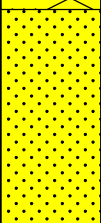
Loose-Medium Dense

Fine-coarse GRAVEL and SAND. No MGP impacts.

SW-GW

0.0

0.0



3

-

82%

Orange-Light Brown

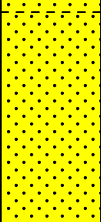
Loose

Fine-medium SAND, some fine-medium gravel, trace silt. No MGP impact.

SW

0.0

Dry
0.0



4

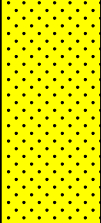
-

82%

Fine-medium SAND, some fine-medium gravel. No MGP impact.

0.0

0.0



5

-

72%

-trace silt from 22'-25'.

0.0

0.0



6

-

72%

Gray

Fine-medium GRAVEL and SAND.

SW-GW



50.6

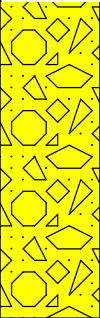


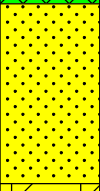
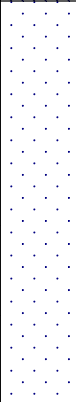
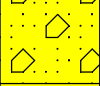
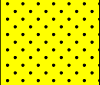
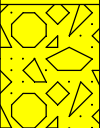

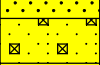
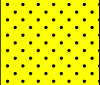
Moist

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.

Borehole backfilled with cement-bentonite grout to grade.

Borehole hand cleared from 0'-5' bgs.

BORING NO. : HISB-113

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		7	-	83%			Moderate-heavy oil coating and staining, moderate petroleum odor.			65.7	1.0
										85.4	
										111	0.0
										121	
										78	Wet
										140	
					Tan					155	1.0
						Very Stiff	CLAY, trace fine gravel. Slight petroleum odor.	CL		64	0.0
-35		8	-	83%	Light Gray	Loose	Medium-coarse SAND, little fine-medium gravel. Trace silt from 35'-38'. Moderate petroleum odor and staining to 35'. Faint petroleum odor from 35'-38'.	SW		200	
					Brown	Medium Dense				8.4	0.0
					Orange-Brown					8.7	
							Fine-coarse GRAVEL, some fine-coarse sand. Faint petroleum odor.	GW		8.4	
-40		9	-	83%		Loose-Medium Dense	Fine-medium SAND, trace fine gravel and silt. Faint petroleum odor.	SW		10.4	0.0
										3.4	
							Medium-coarse SAND and GRAVEL. No impact noted.	SW-GW		5.0	
										10	
										0.8	
-45		10	-	88%			Fine-coarse SAND, trace fine-coarse gravel. No impact.	SW		0.7	0.0
										1.1	
							Medium GRAVEL, some coarse sand. No impact.	GP		2.3	
										3.4	
							Fine-coarse SAND, trace fine-medium gravel. No impact.	SW		5.3	
-50							End of boring at 50' bgs.				
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Borehole backfilled with cement-bentonite grout to grade.
Borehole hand cleared from 0'-5' bgs.

<div>URS Corporation</div>										TEST BORING LOG				
										BORING NO. :		HISB-116		
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										SHEET:		1 OF 4		
CLIENT: National Grid										JOB NO. :		11175065.00011		
BORING CONTRACTOR: Zebra										BORING LOCATION: N/A				
GROUNDWATER: N/A					CAS.	SAMPLER	CORE	TUBE	GROUND ELEVATION:N/A					
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 6/23/09					
				DIA.		2-inch			DATE FINISHED: 6/23/09					
				WT.					DRILLER: Evan Moriatis					
				FALL					GEOLOGIST: J. Harshman					
				* POCKET PENETROMETER READING				REVIEWED BY: K. Connare						
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE			
		NO.	BLOW COUNT	RQD%		CONSISTENCY ROCK HARDNESS					HCN			
0														
-5														
-10														
-15														
-20														
-25														
<div>COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe. Groundwater sampled with Hydropunch at specified intervals. Boring backfilled with cement-bentonite grout to grade. Groundwater Plume Delineation/Design Criteria = 100 ug/L for Total BTEX and Total PAHs.</div>														
<div>BORING NO. : HISB-116</div>														

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 4

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-30		1	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = ND Total PAH = ND	-		-	Wet
-35											
-40		2	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = ND Total PAH = ND	-		-	Wet
-45											
-50		3	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 1.3 ug/L Total PAH = ND	-		-	Wet
-55											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe. Groundwater sampled with Hydropunch at specified intervals.
Boring backfilled with cement-bentonite grout to grade.
Groundwater Plume Delineation/Design Criteria = 100 ug/L for Total BTEX and Total PAHs.

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-60		4	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 103 ug/L Total PAH = 199 ug/L	-		-	Wet
-65											
-70		5	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 5.5 ug/L Total PAH = 37 ug/L	-		-	Wet
-75											
-80		6	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 90.8 ug/L Total PAH = 330 ug/L	-		-	Wet
-85											
-90											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe. Groundwater sampled with Hydropunch at specified intervals.
Boring backfilled with cement-bentonite grout to grade.
Groundwater Plume Delineation/Design Criteria = 100 ug/L for Total BTEX and Total PAHs.

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 4 OF 4

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	MOISTURE
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					HCN
-95		7	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 99.9 ug/L Total PAH = 451 ug/L	-		-	Wet
-100		8	-	-	-	-	Groundwater samples analyzed for Total BTEX and Total PAHs. Total BTEX = 291.5 ug/L Total PAH = 604 ug/L	-		-	Wet
-105											
-110											
-115											
-120											

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe. Groundwater sampled with Hydropunch at specified intervals.
Boring backfilled with cement-bentonite grout to grade.
Groundwater Plume Delineation/Design Criteria = 100 ug/L for Total BTEX and Total PAHs.

BORING NO. : IPR-30

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: Zebra

BORING LOCATION: N/A

GROUNDWATER: ~20' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE Macrocore

DATE STARTED: 7/18/09

DIA. 2-inch

DATE FINISHED: 7/18/09

WT.

DRILLER: E. Moraitis

FALL

GEOLOGIST: M. Dascoli

* POCKET PENETROMETER READING

REVIEWED BY: J. Boyd

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
------------	--------	------------	--------------	-------	---	-------------------------	------	----------------------	-----	-----	-----	----------

0		-	-			No samples collected from 0'-20'.						
-5												
-10												
-15												
-20		1	52%	Brown	N/A	Fine-medium SAND, trace fine gravel. Strong naphthalene-like odor.	SW		32.4	4.0	1.0	Wet
									15.3	3.0	1.0	
									47.8	4.0	1.0	
									247	6.0	1.0	
									340	4.0	2.0	
-25		2	50%			Fine-coarse SAND, trace fine gravel.			153	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : IPR-30

BORING NO. : IPR-30

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 2 OF 3

CLIENT: National Grid

JOB NO. :11175065.00011

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-30		3	43%	Light Brown		Fine-medium SAND. 2-inches of black NAPL staining at 27'. Black 1/4"-2" lenses of heavy NAPL coating, sheen, and strong naphthalene-like odor from 28'-29'	SP		228	42	5.0	
									243	64	7.0	
									295	82	7.0	
									395	102	8.0	
				Dark Brown		Fine SAND, little silt. Black 1/4"-2" lenses of heavy NAPL coating, sheen, and strong naphthalene-like odor from 29'-29.5'.			512	17	1.0	
									221	9.0	0-1	
									76.1	7.0	0.0	
									96.2	7.0	0.0	
-35		4	25%	Light Brown-Gray		Fine SAND, little silt. Strong naphthalene-like odor throughout. Dark brown NAPL saturation and product from 30.5'-31.25'. Dark brown NAPL saturation from 32'-32.5'. NAPL sheen from 31.25'-33'.			161	6.0	0.0	
									132	3.0	0.0	
						Fine SAND, little silt. Moderate-strong naphthalene-like odor.	SW		187	6.0	0.0	
				Brown		Fine-coarse SAND, some fine gravel. Moderate-strong naphthalene-like odor.	ML		113	7.0	0.0	
-40		5	43%	Light Brown		SILT, little fine sand. Moderate-strong naphthalene-like odor.			48.3	13	0.0	
									42.2	12	0.0	
						Fine-medium SAND. Faint naphthalene-like odor.	SW		4.3	0.0	0.0	
						-with some coarse sand, trace fine-coarse gravel from 43'-45'.			0.2	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-45		6	23%			Fine-coarse SAND, trace fine gravel. No MGP impacts noted.			0.0	0.0	0.0	
									5.7	0.0	0.0	
									1.3	0.0	0.0	
									0.3	0.0	0.0	
									0.0	0.0	0.0	
-50		7	33%		Loose				0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	
-55		8	3%			Fine SAND, some silt. No MGP impacts.	SM		0.0	0.0	0.0	
									0.0	0.0	0.0	
									0.0	0.0	0.0	

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : IPR-30

DEPTH FEET	STRATA	SAMPLE NO.	REC% RQD%	COLOR	SOIL CONSISTENCY ROCK HARDNESS	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	HCN	H2S	MOISTURE
-60		9	57%			Fine-medium SAND, trace fine gravel. Faint naphthalene-like odor.	SW		0.0	0.0	0.0	
						Fine-coarse SAND, little fine-coarse gravel. No MGP impacts.			0.0	0.0	0.0	
						Fine-medium SAND. No MGP impacts.	SP		3.4	1.0	0.0	
									1.4	1.0	0.0	
									0.4	0.0	0.0	
				Dark Brown	Very Dense		ML		0.2	1.0	0.0	
-65		10	25%			Fine SAND and SILT, little clay. No MGP impact.	SM		0.0	4.0	0.0	
				Light Brown		Fine SAND, some silt. Faint naphthalene-like odor.			14.9	1.0	0.0	
						Fine SAND, some silt. No MGP impact.			9.6	1.0	0.0	
									11.1	4.0	0.0	
									13.9	5.0	0.0	
									8.3	5.0	0.0	
-70						End of boring at 70' bgs.						
-75												
-80												
-85												
-90												

COMMENTS: Boring advanced with a 6620 DT Direct Push Geoprobe and sampled with a 2" diameter macrocore.
Boring backfilled with cement-bentonite grout to grade.
Sampling begins at 20' bgs.

BORING NO. : ISS-01

PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York

SHEET: 1 OF 3

CLIENT: National Grid

JOB NO. : 11175065.00011

BORING CONTRACTOR: F + N

BORING LOCATION: On Site

GROUNDWATER: ~25' bgs

CAS. SAMPLER CORE TUBE

GROUND ELEVATION: N/A

DATE TIME LEVEL TYPE TYPE HSA Split-spoon

DATE STARTED: 9/15/08

DIA. 4 1/4" 2"

DATE FINISHED: 9/16/08

WT. 140 lbs

DRILLER: Charlie

FALL 30"

GEOLOGIST: J. Harshman

* POCKET PENETROMETER READING

REVIEWED BY: K. Connare

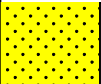



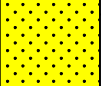







DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL CONSISTENCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD%		ROCK HARDNESS					
0							Borehole hand cleared from 0'-5' bgs.				
-5		1	5, 3 5, 10	54%	Black-Brown	Loose	FILL. Fine sand with some coal & brick fragments, fine gravel. Slight naphthalene-like odor.	FILL		3.6	Dry 1.0 Moist
		2	5, 5 3, 4	50%	Brown		-black staining from 6'-7'.			3.0	
		3	16, 22 22, 30	0%		Dense	FILL. Fine sand, trace fine gravel. No MGP impact noted.				Dry
-10		4	6, 18 24, 30	75%	Orange-Brown		Fine-coarse SAND and fine-coarse GRAVEL. No MGP impact.	SW-GW		1.7	
		5	9, 21 34, 30	67%		Very Dense	Fine-coarse SAND, trace-little gravel. No MGP impact.	SW		0.6	0-2
-15		6	20, 20 24, 25	67%		Dense				3.0	0-1
		7	8, 10 16, 22	58%		Medium Dense				1.0	0-2
-20		8	5, 10 15, 11	54%							0-1
		9	5, 8 15, 30	63%	Orange-Red					0.0	0.0
		10	3, 12 20, 16	67%	Orange-Dark Brown	Dense	Fine-coarse SAND, little-some fine-coarse gravel. No MGP impact.			1.6	0-2
-25		11	1, 3 6, 12	67%	Brown-Light Brown	Loose	Fine-coarse SAND, trace fine gravel. Slight naphthalene-like odor, light coating, and black and brown staining.			28	3.0 Wet

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers.

Sampling performed with 2" diameter split spoon samplers. Sample ISS-01/22-24 and ISS-01/44-46 collected for Moisture

Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.

BORING NO. : ISS-01

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS						
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS											
-30		12	5, 4 12, 22	75%	Brown- Light Brown	Medium Dense	-black staining, slight naphthalene-like odor, moderate NAPL coating at 27'. Fine SAND, trace fine gravel. Strong naphthalene-like odor. Thin bands of NAPL saturation from 28'-30'.	SP		10	0-0						
		13	5, 15 25, 25	83%		Dense				377							
		14	5, 4 6, 18	79%		Loose				380	3-4						
		15	4, 12 22, 30	92%		Dense				-black staining and NAPL saturation at 31'. Fine-medium SAND, trace fine gravel. Slight naphthalene-like odor.	SW		75	0.0			
		16	6, 6 6, 5	96%		Medium Dense							350	0.0			
		17	4, 2 3, 14	58%		Loose				Fine-coarse SAND, some fine-coarse gravel. Little black staining, moderate naphthalene-like odor, light NAPL sheen.			80				
		18	2, 2 9, 8	50%		Medium Dense							0.6				
		-40		19		33, 25 22, 22				67%	Light Brown	Dense	Medium-coarse GRAVEL, trace fine sand. No MGP impacts noted.	GW		0.0	0.0
				20		50, 20 16, 18				54%			Fine-medium SAND, trace gravel. No MGP impact.	SW			
													Fine-coarse SAND and GRAVEL. No MGP impact.	SW-GW			
		-45		21		22, 14 9, 9				58%		Medium Dense	Fine-medium SAND, some medium- coarse gravel. No MGP impact.	SW		0.0	0.0
				22		21, 14 10, 10				71%							
23	8, 14 16, 24			75%	Dense	-little fine-coarse gravel. Trace black NAPL staining and naphthalene-like odor from 48.5'-50'. Fine-medium SAND and GRAVEL. No MGP impact.	SW-GW		6.0								
24	49, 28 18, 15	50%		Medium Dense	-sheen from 52.5'-54'. -coarse gravel at 55'. Fine-coarse SAND, trace coarse gravel. No MGP impact.				SW		0.0	0.0					
											25	24, 9 7, 15	54%				
-55		26	21, 14 10, 10	75%	Light Brown					0.0							
		27	4, 7 18, 13	67%													

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers.
Sampling performed with 2" diameter split spoon samplers. Sample ISS-01/22-24 and ISS-01/44-46 collected for Moisture
Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.

URS Corporation

TEST BORING LOG

BORING NO. : ISS-01

PROJECT: National Grid MGP PDI, Hempstead, New York

SHEET: 3 OF 3

CLIENT: National Grid

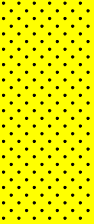

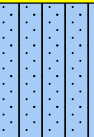


JOB NO. :11175065.00011

[illegible]

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Sample ISS-01/22-24 and ISS-01/44-46 collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.

BORING NO. : ISS-01

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : ISS-02				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: On Site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE	HSA	Split-spoon				DATE STARTED: 9/19/08				
				DIA.	4 1/4"	2"				DATE FINISHED: 9/19/08				
				WT.		140 lbs				DRILLER: Charlie				
				FALL		30"				GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS			
		NO.	BLOW COUNT	RQD%		CONSISTENCY						ROCK HARDNESS		
0							Borehole hand-cleared from 0'-5' bgs.							
-5		1	14 9 5 4	13%	Dark Brown	Medium Dense	FILL. Fine-coarse sand with little fine gravel, some brick fragments, trace coal.	FILL		0.0	Dry 0.0			
		2	5 2 3 5	50%		Loose				2.0				
		3	12 4 4 12	83%						0.4				
-10		4	5 10 17 24	100%	Light Brown-Orange	Medium Dense	Fine-coarse SAND, trace fine gravel. No MGP impact.			0.0	0.0			
		5	15 11 20 28	79%	Dark Brown	Dense								
-15		6	12 24 28 28	100%	Light Brown-Brown	Very Dense	Fine-coarse SAND, trace-little fine gravel. No MGP impact.				0.0			
		7	12 15 14 18	83%		Medium Dense	Fine-coarse SAND, little fine-medium gravel. Moderate naphthalene-like odor, brown staining and slight NAPL coating.	SW		110	1.0			
		8	9 14 22 28	79%		Dense				100-200	0-1			
-20		9	18 20 20 26	83%						150-300	1.0			
		10	12 24 24 26	83%							0-1			
-25		11	6 8 12 15	79%		Medium Dense	-slight-moderate NAPL coating from 25'-25.5', strong naphthalene-like			300-700	Wet 1-4			
COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Sample ISS-02/20-22' and ISS-02/32-34' collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.														
BORING NO. : ISS-02														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
-30		12	9 10 15 20	100%	Light Brown		odor, staining.			400-600	1-3
		13	10 20 30 40	100%		Very Dense	-slight-moderate NAPL coating from 28'-30'.			1750	1-5
		14	4 6 20 24	83%		Medium Dense	-moderate NAPL coating from 30'-31'.			1850	24
		15	8 12 12 16	92%			Fine SILTY SAND. Bands of NAPL saturation, strong naphthalene-like odor, 31'-33'. -moderate NAPL coating and blebs from 33'-34'.	SM		500	8.0
		16	9 15 18 22	100%		Dense	Fine-medium SAND. Slight naphthalene-like odor, light NAPL sheen.	SP		30-80	1.0
-35											
-40							End of boring at 36' bgs.				
-45											
-50											
-55							Drill cuttings from 10'-35' bgs collected into four 5-gallon buckets for bench scale tests.				

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers.
Sampling performed with 2" diameter split spoon samplers. Sample ISS-02/20-22' and ISS-02/32-34' collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : ISS-03				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~25' bgs										BORING LOCATION: On Site				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE	HSA	Split-spoon				DATE STARTED: 9/22/08				
				DIA.	4 1/4"	2"				DATE FINISHED: 9/22/08				
				WT.		140 lbs				DRILLER: Charlie				
				FALL		30"				GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS			
		NO.	BLOW COUNT	RQD%		CONSISTENCY						ROCK HARDNESS		
0							Interval pre-cleared with hand tools to 5' bgs.							
-5		1	27 25 14 5	38%	Black	Dense	FILL. Fine-coarse sand and gravel, some ash-like material, coal fragments to 6.5'. No MGP impact.	FILL		2.5	Dry 0.0			
		2	3 5 6 6	67%	Light Brown	Medium Dense	Fine-coarse SAND, some-trace fine-coarse gravel. No MGP impact.	SW		1.5	0-1			
		3	14 10 10 14	63%							2.0	0.0		
-10		4	10 7 12 20	79%							0-1			
		5	12 12 14 24	75%	Brown-Black	Very Dense	Fine-coarse SAND, trace fine gravel. Slight naphthalene-like odor.			6.0				
-15		6	12 24 27 28	67%						10				
		7	8 20 20 18	67%		Dense	Fine-coarse SAND, some fine-coarse gravel. Black and brown NAPL staining, moderate naphthalene-like odor. -light NAPL coating from 18'-22'.			60	1.0			
		8	8 10 12 16	67%		Medium Dense				0-1				
-20		9	10 11 12 9	67%						100	1.0			
		10	8 8 8 12	75%	Orange-Brown		Fine-coarse SAND, little fine-coarse gravel. Little black NAPL staining, slight naphthalene-like odor. Thin bands of black staining from 22.5'-24'.							
-25		11	8 10 14 14	67%							2.0			
							Fine-coarse SAND and GRAVEL. Moderate naphthalene-like odor.	SW-GW		100	Wet			
COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Sample ISS-03/18-20' and ISS-03/32-34' collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.														
BORING NO. : ISS-03														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
-30		12	5 6 7 7	83%	Light Brown	Dense	Fine-medium SAND, trace fine gravel. Slight-moderate NAPL coating, strong naphthalene-like odor at 28'. -trace silt. Slight NAPL coating, strong naphthalene-like odor, brown NAPL staining in thin bands from 28'- 30'. -brown NAPL staining, coating and naphthalene-like odor from 30'-32'. Dark brown stringers of NAPL. -brown NAPL staining, thin lenses of NAPL saturation, strong naphthalene- like odor from 32'-34'. -light NAPL coating, strong naphthalene-like odor from 34'-36', NAPL saturation in thin lens at 35'. -slight naphthalene-like odor from 36'- 38', slight NAPL coating from 36'- 36.5'.	SW		113	3.0
		13	8 14 17 25	100%							
		14	7 17 22 26	88%							
		15	4 4 14 16	100%							
-35		16	6 9 14 18	100%	Brown	Medium Dense	-light NAPL coating, strong naphthalene-like odor from 34'-36', NAPL saturation in thin lens at 35'. -slight naphthalene-like odor from 36'- 38', slight NAPL coating from 36'- 36.5'.	SW		87	2.0
		17	8 12 15 20	83%							
		18	5 9 15 24	100%							
		19	2 2 10 15	67%							
-40		20	35 16 16 16	83%	Light Brown	Dense	Fine SAND, trace gravel. DNAPL stringers from 39'-39.5'. Slight naphthalene-like odor. Fine-medium SAND, little fine-medium gravel. Thin lenses of moderate- heavy NAPL coating. Fine-coarse SAND, little fine-coarse gravel, trace cobbles. Thin lens of NAPL saturation at 42'. NAPL staining, coating, blebs, sheen, and moderate naphthalene-like odor. -several lenses of NAPL saturation, moderate naphthalene-like odor from 44'-46'.	SW		40	2.0
		21	7 9 9 20	75%							
		22	24 12 12 20	50%							
		23	7 2 2 10	50%							
-45					Light Brown- Gray	Medium Dense	Fine-coarse SAND. NAPL sheen, slight naphthalene-like odor. Fine-medium GRAVEL, trace fine- coarse sand. Light NAPL coating, blebs, and slight naphthalene-like odor. Fine-coarse SAND, trace fine-coarse gravel, trace cobble. Slight NAPL coating, sheen, slight naphthalene-like odor. End of boring at 50' bgs. Drill cuttings from 10'-50' placed into four 5-gallon buckets for bench scale tests.	SW		30	1.0
-50					Light Brown	Very Loose		GW		5.0	
-55											

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers.
Sampling performed with 2" diameter split spoon samplers. Sample ISS-03/18-20' and ISS-03/32-34' collected for Moisture
Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-5' bgs.

URS Corporation										TEST BORING LOG				
PROJECT/PROJECT LOCATION: National Grid MGP PDI, Hempstead, New York										BORING NO. : ISS-04				
CLIENT: National Grid										SHEET: 1 OF 2				
BORING CONTRACTOR: F + N										JOB NO. : 11175065.00011				
GROUNDWATER: ~22' bgs										BORING LOCATION: MOB Parking Lot				
CAS. SAMPLER CORE TUBE										GROUND ELEVATION: N/A				
DATE	TIME	LEVEL	TYPE	TYPE	HSA	Split-spoon				DATE STARTED: 10/4/08				
				DIA.	4 1/4"	2"				DATE FINISHED: 10/4/08				
				WT.		140 lbs				DRILLER: Charlie				
				FALL		30"				GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY: K. Connare				
DEPTH FEET	STRATA	SAMPLE		REC%	COLOR	SOIL	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS			
		NO.	BLOW COUNT	RQD%		CONSISTENCY						ROCK HARDNESS		
0							Borehole hand-cleared from 0'-4' bgs.							
-5		1	12 5 9 14	67%	Dark Brown	Medium Dense	Fine-coarse SAND, trace little fine-medium gravel. No MGP impact.	SW		0.0	Dry 0-1			
		2	9 25 32 34	100%	Light Brown	Very Dense				2.3	0.0			
		3	11 12 12 7	92%		Medium Dense				4.0				
-10		4	8 14 21 24	75%	Dark Brown	Dense	-faint naphthalene-like odor from 10'-16'.			8.0	0.0			
		5	10 20 30 32	75%	Light Brown	Very Dense				25				
-15		6	14 22 22 24	75%	Light Brown-Orange	Dense				85	1.0			
		7	8 14 15 22	79%		Medium Dense	-moderate naphthalene-like odor from 16'-18'.			300	0.0			
		8	7 18 34 37	75%	Light Brown	Very Dense	-trace coarse sand, moderate naphthalene-like odor and trace staining from 18'-20'.			400				
-20		9	10 12 20 25	100%		Dense	-moderate naphthalene-like odor from 20'-22'.				1.0			
		10	6 10 14 18	75%		Medium Dense	-light NAPL coating on gravel, trace NAPL sheen and brown staining, moderate naphthalene-like odor from 22'-24'.			500	Wet 0.0			
-25		11	4 9 14 4	75%			-trace NAPL coating, naphthalene-like odor and sheen from 24'-27'.				2.0			
COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers. Sampling performed with 2" diameter split spoon samplers. Sample ISS-04/18-20' and ISS-04/32-34' collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-4' bgs.														
BORING NO. : ISS-04														

DEPTH FEET	STRATA	SAMPLE		REC %	COLOR	SOIL CONSISTANCY	MATERIAL DESCRIPTION	USCS	MGP COLOR CODE	PID	REMARKS
		NO.	BLOW COUNT	RQD %		ROCK HARDNESS					
-30		12	16 5	92%			Fine SAND. NAPL staining, slight NAPL coating, sheen, strong naphthalene-like odor from 27'-28'.	SP		700	0.0
		13	12 18 21 17	100%		Dense	Fine-coarse SAND, trace fine gravel. Brown NAPL staining, sheen, strong naphthalene-like odor from 28'-29'.	SW		2000	7.0
		14	8 12 20 26	100%			Fine SAND. Lenses of NAPL saturation, strong naphthalene-like odor, sheen from 29'-30'.	SW		150	0.0
		15	7 15 20 24	100%			Fine-coarse SAND, trace coarse gravel. Moderate NAPL coating, moderate naphthalene-like odor and sheen from 30'-32'.	SP		500	
-35		16	4 5 10 14	100%		Medium Dense	Fine SAND, trace coarse gravel. Slight brown NAPL staining and light coating from 32'-33'.	SW		250	0.0
		17	4 5 9 16	100%			Fine-medium SAND. NO MGP impacts noted from 33'-34'.	SW-GW SW		100	
-40		18	5 10 12 24	79%			Fine SAND. Heavy NAPL sheen, coating from 34'-35.5'.			20	
							Fine-coarse SAND and GRAVEL. Light NAPL sheen.				
							Fine-coarse SAND. Slight naphthalene-like odor throughout. Slight NAPL staining at 37'.				
-45							End of boring at 40' bgs.				
							Drill cuttings from 20'-40' collected into four 5-gallon buckets for bench scale testing.				
-50											
-55											

COMMENTS: Boring advanced with a Cantera truck-mounted drill rig using a 4 1/4" ID hollow-stem augers.
Sampling performed with 2" diameter split spoon samplers. Sample ISS-04/18-20' and ISS-04/32-34' collected for Moisture Content. Boring backfilled with cement-bentonite grout to grade. Borehole hand cleared from 0'-4' bgs.

Test Pit Logs



77 Goodell Street
Buffalo, New York 14203
(716) 856-5636

TEST PIT LOG

PROJECT: Hempstead MGP PDI		Sheet 1 of 1	
CLIENT: National Grid		JOB NUMBER: 11175065.00011	
CONTRACTOR: Entact		LOCATION: East side of Sold Property, Hempstead, NY	
DATE STARTED: 9/17/2008		OPERATOR: Entact	
DATE COMPLETED: 9/17/2008		GEOLOGIST: J. Harshman	
TRENCH NUMBER: TP-105		WEATHER: Sunny, calm-light breeze, 70°	
DEPTH (FT)	USCS	DESCRIPTION	PID
1	Fill ↓	FILL. Dark brown loamy soil with fill material, concrete, metal pipe, ALM (ash-like material) debris, black cinder, orange sand and gravel. Dry. Slight MGP odor. -Concrete block encountered (2' X 2'). Old clay stormdrain pipe containing oil water with sheen. Limited amount of water contained in old pipe at 4' bgs. -Old clay stormdrain pipe containing oily water with sheen. Limited amount of water contained in old pipe.	0-1 ppm ↓
2			0-3 ppm ↓
3			
4			
5			
6			SP ↓
7			
8			
9		Bottom of Test Pit at 9' bgs.	
10			
11			
12			
13			
COMMENTS: -Test pit excavated with a track-mount excavator. -No sustained PID readings in ambient air. No sustained PID or CAMP readings. -Pit dimensions are approximately 20' long X 5' wide X 9' deep.			

Well Construction Diagrams

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Fenley & Nicol	
Operator: K. Kegel	
Model: Geoprobe 7720DT	
Date: 27-Jan-09	
GEOLOGIC LOG	
Depth(ft.)	Description
WELL DESIGN	

Top of Riser (Elev.) 70.43

Ground Level (Elev.) 70.79

NM Top of Casing (Elev.)

Top of Seal 20

Top of Sand Pack 22

Top of Screen 25

Bottom of Screen 35

Bottom of Sump 37

Bottom of Borehole

Well Casing
2" diameter
25 length
sch 40 pvc type

Borehole Diameter
8" inches

Well Screen
2" diameter
10 length
sch 40 pvc type

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting:
Well: 2" Sch 40 PVC	Slot Size: No. 10	SEAL MATERIAL Type 1: Cement Bentonite Grout Setting: Type 2: Bentonite Setting:
COMMENTS: NM = Not Measured		LEGEND <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background: radial-gradient(circle, black 1px, transparent 1px); background-size: 4px 4px; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: HIMW-20S

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Fenley & Nicol	
Operator: K. Kegel	
Model: Geoprobe 7720DT	
Date: 26-Jan-09	
GEOLOGIC LOG	
Depth(ft.)	Description
WELL DESIGN	

Top of Riser (Elev.) 70.30

Ground Level (Elev.) 70.94

NM Top of Casing (Elev.)

Top of Seal 57

Top of Sand Pack 59

Top of Screen 63

Bottom of Screen 73

Bottom of Sump 75

Bottom of Borehole 75

Well Casing
2" diameter
63 length
sch 40 pvc type

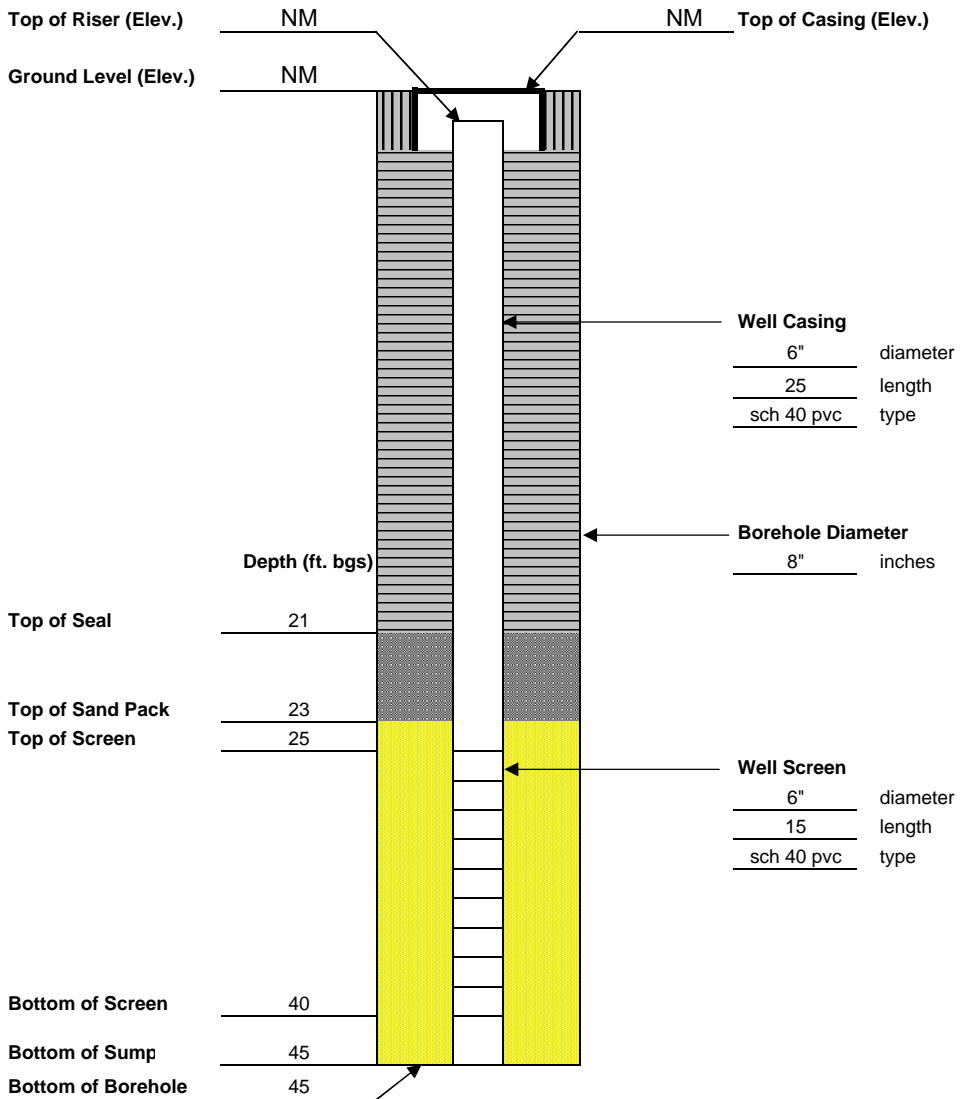
Borehole Diameter
8" inches

Well Screen
2" diameter
10 length
sch 40 pvc type

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting:
Well: 2" Sch 40 PVC	Slot Size: No. 10	SEAL MATERIAL
		Type 1: Cement Bentonite Grout Setting: Type 2: Bentonite Setting:
COMMENTS: NM = Not Measured		LEGEND
		<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> Cement/Bentonite Grout </div> <div style="text-align: center;"> Bentonite </div> <div style="text-align: center;"> Sand Pack </div> </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: HIMW-20I

DRILLING SUMMARY		
Geologist: Jeff Harshman		
Contractor: Zebra Environmental		
Operator:		
Model: Geoprobe Model 8040 DT		
Date:		
GEOLOGIC LOG		
Depth(ft.)	Description	
	No samples collected	
WELL DESIGN		
CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting: 25'-35'
Well: 6" Sch 40 PVC	Slot Size: No. 20	SEAL MATERIAL
		Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND
		<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>
Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: HIMW-21

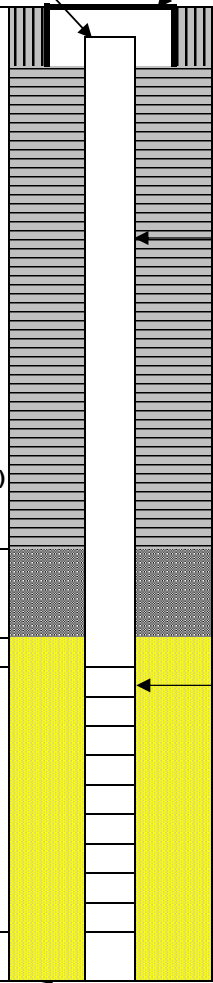
DRILLING SUMMARY		
Geologist: Jeff Harshman		
Contractor: Zebra Environmental		
Operator:		
Model: Geoprobe Model 8040 DT		
Date:		
GEOLOGIC LOG		
Depth(ft.)	Description	
	No samples collected	
		
WELL DESIGN		
CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box Well: 6" Sch 40 PVC	Type: Sch 40 PVC Slot Size: No. 20	Type: No. 2 sand Setting: 23'-45' SEAL MATERIAL Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND
		<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background: repeating-linear-gradient(-45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 30px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>
Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: IPR-26

..

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Zebra Environmental	
Operator:	
Model: Geoprobe Model 8040 DT	
Date:	
GEOLOGIC LOG	
Depth(ft.)	Description
	No samples collected
WELL DESIGN	

Top of Riser (Elev.) NM

Ground Level (Elev.) NM



The diagram shows a cross-section of a well. At the top, there is a riser and casing, both labeled 'NM' (Not Measured). Below the ground level, the well casing is shown as a grey hatched area. The borehole diameter is indicated as 8 inches. The well casing is 6 inches in diameter and 25 feet long, made of sch 40 pvc. The well screen is 6 inches in diameter and 15 feet long, also made of sch 40 pvc. The screen is located between depths of 25 and 40 feet. The bottom of the screen is at 40 feet. The bottom of the sump is at 45 feet. The bottom of the borehole is at 45 feet. The well is filled with sand pack (yellow) from 25 feet to the bottom of the screen. The casing is filled with cement/bentonite grout (grey hatched) from the top to the bottom of the screen. The borehole is filled with cement/bentonite grout (grey hatched) from the top to the bottom of the screen. The borehole is 8 inches in diameter.

Top of Casing (Elev.) NM

Well Casing
6" diameter
25 length
sch 40 pvc type

Borehole Diameter
8" inches

Well Screen
6" diameter
15 length
sch 40 pvc type

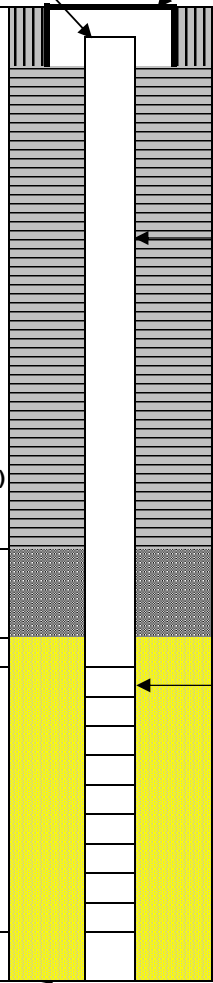
CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting: 23'-45'
Well: 6" Sch 40 PVC	Slot Size: No. 20	SEAL MATERIAL
		Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND
		<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: IPR-27

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Zebra Environmental	
Operator:	
Model: Geoprobe Model 8040 DT	
Date:	
GEOLOGIC LOG	
Depth(ft.)	Description
	No samples collected
WELL DESIGN	

Top of Riser (Elev.) NM

Ground Level (Elev.) NM



The diagram shows a cross-section of a well. At the top, there is a riser and casing, both labeled 'NM' (Not Measured). Below the ground level, the well casing is shown as a vertical cylinder. The casing has a diameter of 6 inches and a length of 25 feet, made of sch 40 pvc. The borehole diameter is 8 inches. The well screen is located at the bottom of the casing, with a diameter of 6 inches, a length of 15 feet, and made of sch 40 pvc. The screen is positioned at a depth of 25 feet from the ground level. The casing is filled with cement/bentonite grout. The screen is surrounded by sand pack. The bottom of the screen is at a depth of 40 feet. The bottom of the sump is at a depth of 50 feet. The bottom of the borehole is at a depth of 50 feet.

Top of Casing (Elev.) NM

Well Casing
6" diameter
25 length
sch 40 pvc type

Borehole Diameter
8" inches

Well Screen
6" diameter
15 length
sch 40 pvc type

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting: 23'-50'
Well: 6" Sch 40 PVC	Slot Size: No. 20	SEAL MATERIAL
		Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND
		<div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 30px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: IPR-28

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Zebra Environmental	
Operator:	
Model: Geoprobe Model 8040 DT	
Date:	
GEOLOGIC LOG	
Depth(ft.)	Description
	No samples collected
WELL DESIGN	

Top of Riser (Elev.) NM

Ground Level (Elev.) NM

The diagram shows a vertical well construction. At the top, the riser and casing are at 'NM' (Not Measured) elevation. The ground level is also at 'NM'. The casing is 6" diameter, 25' long, and made of sch 40 pvc. Below the casing is a seal. The borehole diameter is 8" inches. The screen is 6" diameter, 15' long, and made of sch 40 pvc. The screen is located between depths 23' and 25' bgs. The sand pack is located between depths 25' and 40' bgs. The bottom of the screen is at 40' bgs, the bottom of the sump is at 50' bgs, and the bottom of the borehole is at 50' bgs.

Top of Casing (Elev.) NM

Well Casing
6" diameter
25 length
sch 40 pvc type

Borehole Diameter
8" inches

Well Screen
6" diameter
15 length
sch 40 pvc type

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting: 23'-50'
Well: 6" Sch 40 PVC	Slot Size: No. 20	SEAL MATERIAL Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 20px; height: 10px; background-color: #808080; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #ffff00; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: IPR-29

DRILLING SUMMARY	
Geologist: Jeff Harshman	
Contractor: Zebra Environmental	
Operator: E. Moraitis	
Model: Geoprobe Model 8040 DT	
Date: 18-Jul-09	
GEOLOGIC LOG	
Depth(ft.)	Description
	No samples collected (0' - 20')
20	(f-m) Sand, trace (F) gravel naphthalene-like odor
25	(f-c) Sand, trace (f) gravel black NAPL staining & lenses
29	(f) Sand, little silt NAPL coatings, NAPL saturation (30.5'-31.25' & 32'-32.5')
36	(f-c) Sand, some (f) gravel
38	Silt, little (f) sand
40	(f-m) Sand, trace (F) gravel
45	As above, no MGP impacts
WELL DESIGN	

Top of Riser (Elev.) NM

Ground Level (Elev.) NM

Top of Seal 21

Top of Sand Pack 23

Top of Screen 25

Bottom of Screen 40

Bottom of Sump 50

Bottom of Borehole 80

Top of Casing (Elev.) NM

Well Casing
6" diameter
25 length
sch 40 pvc type

Borehole Diameter
8" inches

Well Screen
6" diameter
15 length
sch 40 pvc type

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel Grade Box	Type: Sch 40 PVC	Type: No. 2 sand Setting: 23'-80'
Well: 6" Sch 40 PVC	Slot Size: No. 20	SEAL MATERIAL Type 1: Cement Bentonite Grout Setting: 1'-21' Type 2: Bentonite Setting: 21'-23'
COMMENTS: NM = Not Measured		LEGEND <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> <div style="width: 30px; height: 10px; background: radial-gradient(circle, black 1px, transparent 1px); background-size: 4px 4px; border: 1px solid black; margin-right: 5px;"></div> Bentonite </div> <div style="display: flex; align-items: center;"> <div style="width: 30px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></div> Sand Pack </div>

Client: National Grid	Location: Hempstead Former MGP Site	Project No.: 11176098
URS Corporation	WELL CONSTRUCTION DETAILS	Well Number: IPR-30

APPENDIX B

ENVIRONMENTAL FORENSIC REPORT

Environmental Forensic Report

National Grid Hempstead Former MGP Site



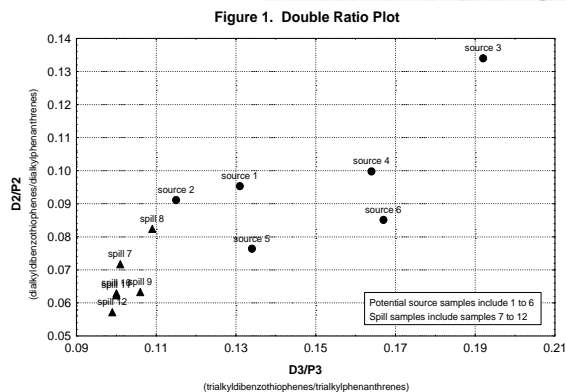
Report To:

URS Corporation
77 Goodell Street
Buffalo, New York 14203

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

May 2009



Identifying and allocating sources of pollutants in complex environments.

Environmental Forensic Report Hempstead Former MGP Site

Prepared for:

URS Corporation
77 Goodell Street
Buffalo, New York 14203

Prepared by:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

May 2009

Executive Summary

META Environmental, Inc. conducted an environmental forensic study to identify the nature and potential sources of hydrocarbon contamination near the Hempstead former manufactured gas plant (MGP) site in Hempstead New York. The study involved the laboratory chemical analysis of samples from the site and from off-site, as well as the review of documents, maps, and laboratory testing results conducted by others.

Twenty-two soil (22) samples and five (5) NAPL samples were received by META from the Hempstead former MGP site in Hempstead, New York. The samples were collected over several years and in several sample delivery groups from July 2002 to November 2008. The samples were analyzed for hydrocarbon fingerprints by GC/FID and for monocyclic aromatic hydrocarbons (MAHs), polycyclic aromatic hydrocarbons (PAHs), alkylated PAHs, and selected petroleum biomarker compounds by GC/MS.

Some samples from the Hempstead former MGP site exhibited PAH concentrations and patterns consistent with tar-like materials (TLM) generated by former MGPs. Some MGP site samples also contained petroleum products ranging from extremely weathered unidentifiable substances to a kerosene-like distillate.

In contrast, the samples collected adjacent to the Oswego Oil property, located immediately to the east of the former MGP site, exhibited GC/FID patterns and PAH patterns consistent with distillate fuel oil. Also, some samples collected just west of the Oswego Oil site in the former Long Island Railroad right-of-way contained a mixture of distillate fuel oil and elevated concentrations of PAHs. The PAH patterns in some samples were consistent with TLM generated by former MGPs. Some samples collected just East and South of the Oswego Oil site contained only distillate fuel oil at various degrees of environmental degradation (e.g., undegraded to moderately degraded). Finally, samples collected and analyzed by other consultants for the Oswego Oil Corporation indicated that gasoline was released at the Oswego Oil site. These findings are consistent with the products reportedly handled at the Oswego Oil site.

Groundwater samples collected south of the Oswego Oil property (in the downgradient groundwater flow direction) contained MTBE, indicating impacts from gasoline. The presence of MTBE and MAHs in the groundwater at the Oswego Oil site indicate gasoline impacts unrelated to the former MGP. Also, the distillate fuel oil releases at the Oswego Oil site likely contributed MAHs and PAHs to the groundwater plume that exists in this area.

Several types of distillate fuel oil were identified in samples from the study area using a combination of petroleum biomarker compounds and patterns. However, generally all of the distillate fuel oil was similar and was consistent with No. 2 fuel oil and possibly No. 4 fuel oil.

Based on the known and suspected use of petroleum products at the former MGP and at Oswego Oil, and based on the distribution of petrogenic materials found at the site, it appears that impacts by distillate fuel oils are limited to the vicinity of Oswego Oil and likely originated there. The

apparently fresh distillate fuel oil found in HIMW-10S, just east of Oswego Oil, appears to represent a relatively recent release, and could not have originated from the former MGP, which hasn't operated in many years. Oswego Oil had stored and handled fuel oils and gasoline and there have been documented releases of fuel oil and gasoline on the property.

Similarly, based on groundwater sampling by Oswego Oil's consultant, Kost Environmental, Inc., it appears that there also are gasoline impacts downgradient of the Oswego Oil site. Based on 1983 Nassau County fire Marshall records, Oswego Oil stored and handled gasoline at their facility. Further, no gasoline-like chemicals were identified in any samples from the former MGP.

Finally, MGP TLM and weathered distillate fuel oil was observed at several locations within the former Long Island Railroad right of way to the west of the Oswego Oil property and to the east of the former Hempstead MGP site, and in borings south of the former MGP site and Oswego Oil property along Intersection Street.

Table of Contents

Executive Summary	ii
Table of Contents	iv
Tables	vi
Figures	vii
List of Acronyms	viii
Introduction	1
Objectives and Approach	1
Samples Analyzed by META	3
Sources of Hydrocarbons, Including PAHs, in the Environment	3
Composition of Pyrogenic and Petrogenic Materials	5
Description of Chemical Fingerprinting Methodology	6
GC/FID Fingerprinting	6
Extended PAH Profiles (EPPs) by GC/MS	7
Specific Classification of Samples	8
Types of Common Petroleum Products	9
Types of Common Pyrogenic Substances	9
Results and Discussion	13
Qualitative Review of GC/FID and GC/MS Chromatograms	13
Evaluation of Data Presented in Earlier META Reports	14
Evaluation of Selected Data Presented in the former Hempstead MGP Remedial Investigation	15
Results of Laboratory Testing by META	19
Sample-Specific Observations	19
Summary of SDGs HC081104 and HC081107	19
Petrogenic Substances	24
Estimation of the Amounts of Petrogenic and Pyrogenic Material in Each Sample	29
Variations with depth	33
Potential sources of chemicals in geoprobe borings south of Oswego Oil	34
Summary	34
Qualifications	35
Definitions	41
Laboratory Quality Assurance for SDGs HC081104 and HC081107	42

Sample Delivery Group Narrative	43
Chain of Custody	43
Methods	43
Results	44
Quality Control	44
Analyte Flags	44
Holding Times	44
Surrogate Spikes	44
Blanks	44
Blank Spikes	44
Duplicates	45
Internal Standards	45
References	45
Appendix A	Chromatograms
Appendix B	Chains of Custody for SDG HC081104, HC081107
Appendix C	GC/FID Fingerprints for SDG HC081104, HC081107
Appendix D	Data Summary Sheets for SDG HC081104, HC081107
Appendix E	Histograms for SDG HC081104, HC081107
Appendix F	EICPs for SDG HC081104, HC081107
Appendix G	Historical Documents
Appendix H	META Letter Report August 9, 2002
Appendix I	META Letter Report December 2, 2002
Appendix J	META Environmental Forensic Report October 17, 2003
Appendix K	META Environmental Forensic Report November 25, 2003
Appendix L	META Environmental Forensic Report April 5, 2004
Appendix M	META Environmental Forensic Report January 24, 2008
Appendix N	META Environmental Forensic Report February 25, 2008
Appendix O	META Environmental Forensic Report Distillate Fuel Oil Patterns

Tables

Table 1. Sample Identification Cross-Reference for Samples Analyzed by META	4
Table 2. Summary Definitions of Common Petroleum Products	11
Table 3. Summary Descriptions and Tentative Identifications: Review of Chromatograms Generated by Other Laboratories.....	18
Table 4. Summary Descriptions and Tentative Identifications: Review of Laboratory Data Generated by META.....	20
Table 5. Selected Characteristics of the Petrogenic Material in Each Sample.....	27
Table 6. Estimated Percent of TLM and Distillate Fuel Oil in Each Sample.....	33
Table 7. Selected Source and Weathering Ratios	36

Figures

Figure 1. Environmental Forensic Sampling Locations	2
Figure 2. Common Petroleum Products Analyzed by GC/FID	10
Figure 3. Examples of Pyrogenic PAH Sources	12
Figure 4. GC/FID Fingerprints of Soil Samples with Distillate Fuel Oil Patterns of Differing Boiling Point Ranges	26
Figure 5. Quantitative Identification of Hydrocarbon Types – Samples Greater than 25’ Depth	31
Figure 6. Quantitative Identification of Hydrocarbon Types – Samples Less than 25’ Depth....	32
Figure 7. Selected Diagnostic Ratios: benzofluorenes/methylpyrenes verses fluoranthene/pyrene	37
Figure 8. Selected Diagnostic Ratios: fluoranthene/pyrene verses Total PAHs	38
Figure 9. Selected Diagnostic Ratios – Sesquiterpanes	39
Figure 10. Double Ratio Plot: Selected Sesquiterpane Biomarkers	40
Figure 11. Triple Ratio Plot – Selected Sesquiterpane Biomarker Compounds.....	41

List of Acronyms

BTEX	benzene, toluene, ethylbenzene, xylenes
CWG	carbureted water gas
CC	coal carbonization
DNAPL	dense non-aqueous phase liquid
EICP	extracted ion current profile
EPP	extended PAH profile
Fl/Py	ratio of fluoranthene/pyrene
GC/FID	gas chromatography with flame ionization detection
GC/MS	gas chromatography with mass spectrometric detection
HPAH	high molecular weight PAHs (4-, 5- and 6-ring compounds)
LPAH	low molecular weight PAHs (2- and 3-ring compounds)
LNAPL	light non-aqueous phase liquid
MAH	monocyclic aromatic hydrocarbons
MGP	manufactured gas plant
NAPL	non-aqueous phase liquid
PAH	polycyclic aromatic hydrocarbons
PAH ₁₆	EPA priority pollutant PAHs (Appendix A to 40 CFR Part 423)
SDG	sample delivery group
TLM	tar-like material
UCM	unresolved complex mixture

Introduction

META Environmental, Inc. conducted an environmental forensic study to identify the nature and potential sources of subsurface hydrocarbon contamination at and near the Hempstead former manufactured gas plant (MGP) site. The study involved the laboratory chemical analysis of samples from the site and from just off-site, as well as the review of site-specific documents, maps, and laboratory testing results conducted by others. The study focused on an off-site area located south and east of the former MGP, but also included samples taken from the MGP site proper. The locations where samples were collected are shown on Figure 1.

Objectives and Approach

The study was conducted to investigate the following:

1. If hydrocarbons observed in soil and groundwater at the site and downgradient of the site can be attributed to releases from the former MGP site and/or from bulk fuel storage facilities located south and southeast of the site;
2. the approximate age of the contaminant and non-aqueous phase liquid (NAPL) releases;
3. any similarities between the petrogenic (see definitions) materials that were detected across the study area.

The study approach involved the analysis of samples of soil and NAPL by META's laboratory followed by a critical review of the following documents:

- 1) Selected GC/FID chromatograms and GC/MS total ion chromatograms for samples analyzed by H2M Laboratory (see Appendix A),
- 2) Documents prepared by consultants for the Oswego Oil Services Company site that were included in Appendix B of the Remedial Investigation report for the Hempstead Intersection Street former MGP site, including:
 - a) Figure 1 - Site Map
 - b) Storage Tank Registration and Status Report (dated January 1994) for Spill #90-03084
 - c) October 1993 and April 1994 Sampling Results, for Well #1 to Well #5
 - d) October 2001 Geoprobe GW Results
 - e) Monitoring Well Analysis dated May 31, 2002

Appendix A provides copies of the chromatographic and other summary data that were reviewed.

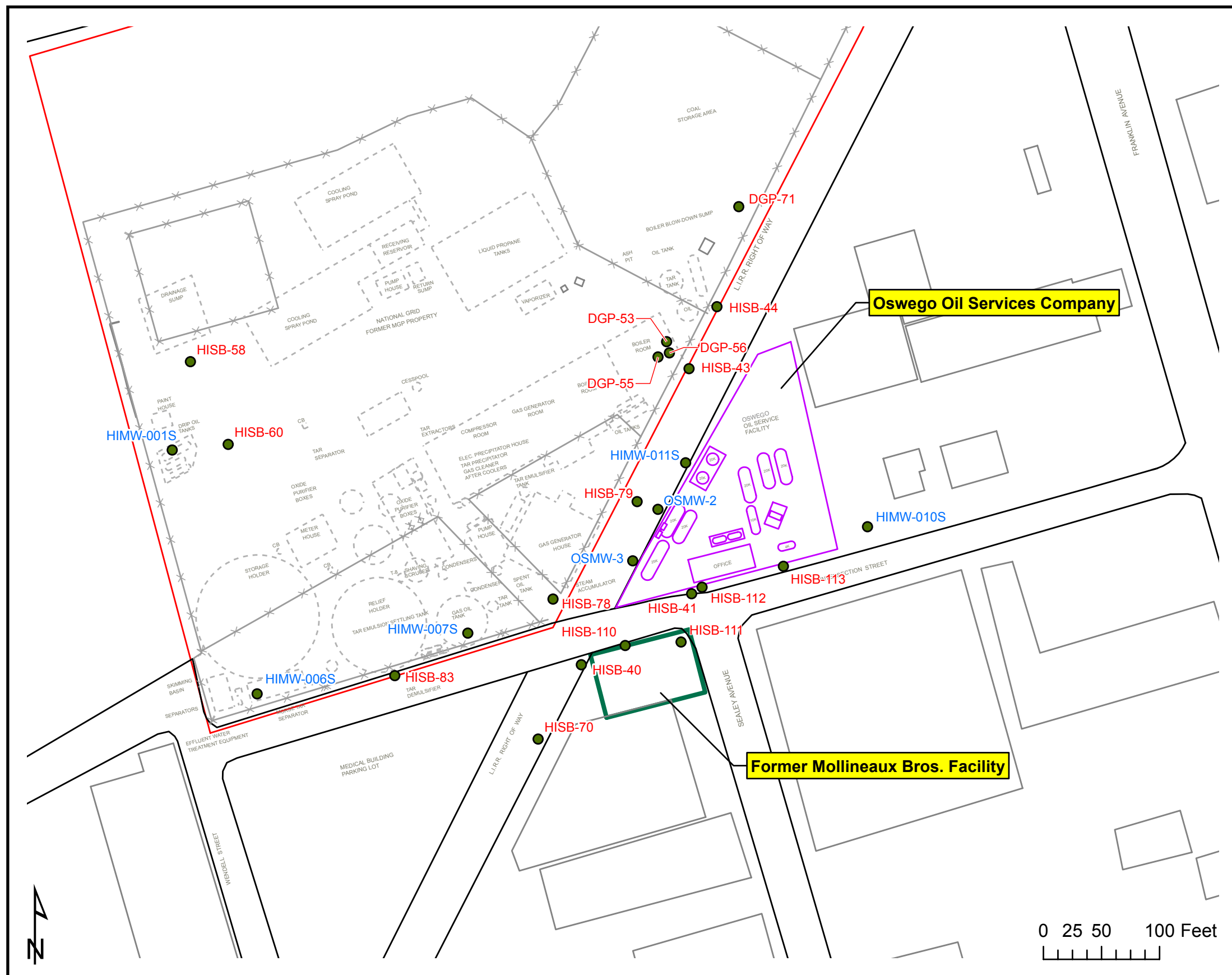


Figure 1
National Grid Hempstead
Intersection Street Former MGP Site
Hempstead/Garden City, NY
Environmental Forensics Sampling
Locations

File Name: Figure 1 Hempstead Former MGP Site
 Date: 1/27/09
 Prepared by: JO
 Client: URS Corporation

Notes:
 1 Basemap site survey data provided by Keyspan Energy Survey Division and URS Corporation.
 2 Source: Approximate locations of MGP structures based on: 1927 General Plan (File F-3706, DWG. 16863-1); 1952 site plan by the New York Fire Insurance Rating Organization; and Sanborn Fire Insurance maps.

Samples Analyzed by META

Twenty-two soil (22) samples and five (5) NAPL samples were received by META from the Hempstead former MGP site in Hempstead New York. The samples were collected over several years and in several sample delivery groups (SDGs) from July 2002 to November 2008. Table 1 provides a cross-reference of sample IDs and report dates from which the data were obtained.

Laboratory reports for all of the samples, except SDGs HC081104 and HC081107, were submitted previously on the dates shown in Table 1. Appendix A provides copies of the GC/FID fingerprints that were generated by META for all SDGs. Appendices H through N contain copies of the individual laboratory reports for each SDG.

The results of analyses of samples from SDGs HC081104 and HC081107 have not been reported previously and are included in Appendices B through F of this report.

Sources of Hydrocarbons, Including PAHs, in the Environment

This section briefly reviews the chemical differences between refined petroleum products and former MGP residuals. Also discussed are the differences among several common refined petroleum products.

The terms petrogenic and pyrogenic are used throughout this report as they apply to the classification of hydrocarbons in environmental samples, and therefore are discussed in more detail in the following paragraphs.

In general, petrogenic substances include crude oil and refined crude oil products such as gasoline, heating oil, and asphalt. Coal also is a petrogenic substance. Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. The compositions of pyrogenic substances are dominated by PAHs, whereas, while they contain PAHs, the compositions of petrogenic substances are dominated by other types of hydrocarbon compounds.

Crude petroleum, many of its refined products, coal, coal tar, and many coal tar products consist primarily of hydrocarbons. Hydrocarbons are organic molecules that are made up of only carbon and hydrogen atoms. Some simple hydrocarbons include hexane and benzene. There are several types of hydrocarbons that are commonly grouped by similar chemical structures, such as alkanes, cyclic alkanes, and aromatic hydrocarbons.

PAHs are one group of hydrocarbons that are present at high relative amounts in crude oil, coal, coal tar, and many of their products. In environmental forensic chemistry and geochemistry, PAHs are placed in subgroups according to their origins. These groups include diagenic, petrogenic, and pyrogenic.

Diagenic PAHs are formed by natural biological and chemical processes at ambient temperatures. When present, these PAHs are found at very low concentrations, typically less than a few parts per billion in soil.

Table 1. Sample Identification Cross-Reference for Samples Analyzed by META

Field ID	META Lab ID	Matrix	Analyses	META Report Date
HIMW-10S	DB020717-01	LNAPL	Fingerprint ¹	8/9/2002
HIMW-11S	DB020717-02	LNAPL	Fingerprint ¹	8/9/2002
HIMW-01S	DB020717-03	DNAPL	Fingerprint ¹	8/9/2002
HIMW-06S	DB021101-01	DNAPL	Fingerprint ¹	12/2/2002
HISB-60 (17'-19')	HT030930-01	Soil	EPP, Fingerprint	11/25/2003
HISB-58 (21'-24')	HT031006-01	Soil	EPP, Fingerprint	11/25/2003
HISB-58 (30'-32')	HT031006-02	Soil	EPP, Fingerprint	11/25/2003
HISB-70 (25'-27')	HT030913-01	Soil	EPP, Fingerprint	10/17/2003
HISB-70 (31'-33')	HT030913-02	Soil	EPP, Fingerprint	10/17/2003
HISB-78 (26'-28')	HT040308-01	Soil	EPP, Fingerprint	4/5/2004
HISB-79 (34'-35')	HT040308-02	Soil	EPP, Fingerprint	4/5/2004
DGP-71	HC071228-01	Soil	EPP, Fingerprint	1/24/2008
HISB-83 (5'-10')	HC080118-01	Soil	EPP, Fingerprint	1/24/2008
HISB-83 (10'-15')	HC080118-02	Soil	EPP, Fingerprint	1/24/2008
OSMW-2 (20'-25')	HC080209-01	Soil	EPP, Fingerprint	2/25/2008
OSMW-2 (30'-35')	HC080209-02	Soil	EPP, Fingerprint	2/25/2008
OSMW-3 (20'-25')	HC080209-03	Soil	EPP, Fingerprint	2/25/2008
HISB - 110/20-25	HC081104-02	Soil	EPP, Fingerprint	1/26/2009
HISB - 110/25-29	HC081104-03	Soil	EPP, Fingerprint	1/26/2009
HISB - 110/29-30	HC081104-04	Soil	EPP, Fingerprint	1/26/2009
HISB - 111/20-25	HC081104-05	Soil	EPP, Fingerprint	1/26/2009
HISB - 111/30-35	HC081104-06	Soil	EPP, Fingerprint	1/26/2009
HISB - 112/25-30	HC081104-07	Soil	EPP, Fingerprint	1/26/2009
HISB - 112/32-35	HC081104-08	Soil	EPP, Fingerprint	1/26/2009
HISB - 113/25-30	HC081104-09	Soil	EPP, Fingerprint	1/26/2009
HISB - 113/30-35	HC081104-10	Soil	EPP, Fingerprint	1/26/2009
HISB-112 / TW / Product	HC081107-03a,b	LNAPL	EPP, Fingerprint	1/26/2009

1 - GC/FID fingerprint

Petrogenic PAHs are formed at relatively low temperatures, during the maturation of crude oil and coal. Both crude oil and coal contain hundreds of different PAH compounds, including many that are the subject of environmental investigations and are regulated.

Finally, PAHs are formed whenever organic substances are exposed to high temperatures under low oxygen or no oxygen conditions in a process called pyrolysis. Pyrolytic processes occur intentionally, such as in the destructive distillation of coal into coke and coal tar, or the thermal cracking of petroleum residuals into lighter hydrocarbons and oil tar. Similar processes occur

unintentionally, such as the incomplete combustion of motor fuels in cars and trucks, the incomplete combustion of wood in forest fires and fireplaces, and the incomplete combustion of coal and fuel oils in heating systems. These processes occur at temperatures that range from about 350°C to more than 1200°C, and their products are called pyrogenic.

Much modern gasoline is unusual in that it contains both petrogenic substances (the light distillate of crude oil) and pyrogenic substances (the light hydrocarbons from thermal cracking of oil). For the purposes of this report, all motor gasoline is considered petrogenic.

Composition of Pyrogenic and Petrogenic Materials

Both pyrogenic and petrogenic sources of PAHs have been found to contain hundreds of individual PAH compounds in generally predictable patterns. For example, it is known that the temperature of formation of PAHs largely determines the distribution of the various parent and alkylated PAHs. The structures of parent or unsubstituted PAHs are various combinations of fused benzene rings. Naphthalene is a simple 2-ring parent PAH. In contrast, alkylated PAHs have an alkane or cyclic alkane substitution on a parent PAH. For example, 2-methylnaphthalene and 2-ethylnaphthalene are simple alkylated PAHs. The possible combinations of alkyl-substitutions on parent PAHs is very large, accounting for the many hundreds of compounds found (Boehm 2006).

Generally, petrogenic and pyrogenic substances are comprised of many of the same compounds. It is the distribution of those compounds, or relative concentrations, that distinguish them. For example, the high temperature, low oxygen conditions under which pyrogenic PAHs are formed favor the formation of parent PAHs over alkylated PAHs. Hence, parent PAHs are abundant in pyrogenic substances, not alkylated PAHs. In contrast, alkylated PAHs (and other non-aromatic hydrocarbons) are abundant in petrogenic substances, not parent PAHs.

Further, and of particular importance to environmental forensic chemistry and geochemistry is the fact that petrogenic and pyrogenic substances from different sources can have measurably different amounts of some PAHs. For example, crude oils from different reservoirs can exhibit notably different ratios of trialkylated dibenzothiophenes to trialkylated phenanthrenes. Similarly, the ratio of dialkylated chrysene to chrysene varies among certain pyrogenic sources. Consequently, the determination of PAH profiles forms an important component of environmental forensic studies where hydrocarbon releases, either petrogenic or pyrogenic, are known or suspected to be involved.

Finally, in addition to PAHs, pyrogenic and petrogenic substances contain various amounts of paraffinic hydrocarbons, olefinic hydrocarbons, naphthenic hydrocarbons, and other types of compounds. The amounts of sulfur-, oxygen-, or nitrogen-containing compounds can vary from source to source and can be used to compare samples. Therefore, in environmental forensic studies, the presence and relative amounts of these compounds also is used to identify the nature and source of hydrocarbon-based materials in environmental samples.

Description of Chemical Fingerprinting Methodology

PAHs commonly form the basis for source attribution and allocation at sites involving petrogenic or pyrogenic materials. Studies have shown that the pattern of PAHs clearly distinguishes petrogenic from pyrogenic substances and can be used to identify and classify petrogenic or pyrogenic substances of different origins. For example, ASTM Method D 5739-95 is the method used extensively by the U.S. Coast Guard to determine the source of oil spilled in public waterways. That method relies on the determination of selected PAHs in oil, soil, or water samples by gas chromatography with mass spectrometric detection (GC/MS) and the use of the qualitative patterns and quantitative ratios of those PAHs to determine which oil samples have a common origin. Similarly, work by META Environmental, Inc. (META) has shown that the same methodology can be used to identify the sources of PAHs at former MGP sites. Further, META has modified the typical sample preparation and analysis procedures for hydrocarbon fingerprinting to include MAHs as well as PAHs.

An approach based on a combination of GC/FID fingerprinting and MAH/PAH profiling has been used to investigate the sources of hydrocarbons at the Hempstead former MGP site, which is the topic of this report. Therefore, a more detailed discussion of the forensic methods used is presented in the next subsection as background.

GC/FID Fingerprinting

All soil and NAPL samples in this study were analyzed by gas chromatography with flame ionization detection (GC/FID). With GC/FID, organic compounds in a sample are vaporized and then separated in a long, narrow fused silica capillary column. Separation follows boiling point approximately with the most volatile compounds exiting the column first followed by increasingly less volatile compounds. Therefore, certain refined petroleum products, generated by the distillation of crude oil and which differ in their boiling point ranges, are distinguishable by where they appear on a chromatogram. Once they exit the column, the compounds are detected using the flame ionization technique. As the compounds exit and are detected, their responses are recorded and shown as peaks on a continuous plot. The height and area of a peak are proportional to the concentration of that compound in the sample. When done in a controlled and reproducible manner, the GC/FID method produces a “fingerprint” of a sample where the presence and relative amounts of the compounds are immediately visible as peaks of varying height appearing at different times. GC/FID fingerprints for the samples analyzed are provided in Appendices A and C.

GC/FID methods are commonly used for fingerprinting in a number of forensic fields. The patterns of individual peaks and the sizes and shapes of any baseline features are examined qualitatively for similarities and differences among samples.

The instrumental conditions for the GC/FID analyses conducted by META for this study were adjusted so that compounds with boiling points between about hexane (C6) and n-tetracontane (C40) were detectable in one analytical run. This range includes most of the VOCs and all of the SVOCs commonly measured in environmental investigations. In particular, it includes benzene, toluene, ethylbenzene, xylenes, and the 16 priority pollutant PAHs that comprise a major portion

of MGP tars and other pyrogenic substances. It also includes the range of compounds that are measurable in pyrogenic substances by gas chromatographic methods. Finally, META's GC/FID conditions detect most of the constituents of gasoline, as well as all of the constituents of higher boiling petroleum products (e.g., kerosene, diesel, refined oils).

For some samples, GC/FID fingerprinting is accurate and sufficient. However, the reliability of GC/FID fingerprinting decreases when multiple sources are present in a sample and when the sample composition becomes extensively altered by environmental weathering processes. Other testing methods, such as GC/MS, are complementary for source identification under these conditions.

Extended PAH Profiles (EPPs) by GC/MS

Samples from the Hempstead former MGP site also were analyzed by GC/MS for an expanded list of MAHs and PAHs (EPPs), and selected petroleum biomarker compounds. Separation was accomplished with gas chromatography using a method similar to the GC/FID method discussed previously. However, in GC/MS, once compounds exit the column, they are detected using a mass spectrometer. In the mass spectrometer, the molecules of each compound are ionized at high temperature and vacuum. The ionic fragments are unstable and fragment into smaller ions. The ions are then counted and the mass spectrum recorded. Thus, the mass spectrum for a compound is the pattern of ionic fragments that forms when that compound is ionized. Mass spectra vary widely and are characteristic of their source compound. For example, the mass spectrum of hexane is very different from the mass spectrum of benzene even though both compounds contain six carbon atoms plus hydrogen atoms.

In GC/MS, one obtains both a chromatogram of peaks and additional compound-specific information in the mass spectrum. When executed in a controlled and reproducible manner, the GC/MS method produces multiple "fingerprints" of a sample when specific fragment ions are isolated.

GC/MS is utilized in two general ways in environmental forensic chemistry. First, samples are analyzed under the conditions required by various standard methods, particularly EPA Methods 8260 and 8270 (U.S. EPA SW-846). The concentrations of certain target compounds are determined and the mass spectrum of each peak in the chromatogram is generated and stored. These mass spectra can be used to identify non-target compounds or to generate extracted ion current profiles (EICPs). Second, various specialty methods are utilized where the GC/MS operating conditions are setup to measure only certain groups of compounds. For example, the method described in 40 CFR Subchapter J Part 300 Subpart L Appendix C for PAHs, alkylated PAHs, and biomarkers is used extensively in oil spill and UST release analyses. This method is similar to ASTM Method D 5739-95, "Standard Practice for Oil Spill Source Identification by Gas Chromatography and Positive Ion Electron Impact Low Resolution Mass Spectrometry."

GC/MS data are commonly used for calculating the concentrations of selected compounds, for comparing peak area ratios, or for applying chemometric or pattern recognition techniques to the raw or adjusted data. These data analysis methods are used extensively with extended PAH profiles (MAHs, PAHs and alkylated PAHs) and with biomarker compound data. Various

degrees of statistical confidence can be achieved by examining chemical concentrations and compound ratios or patterns from multiple samples and replicate samples. This characteristic of GC/MS quantitative data is particularly valuable when assessing the degree of similarity or difference between samples, particularly when multiple sources of hydrocarbons are present in the sample or when environmental weathering has altered the original distributions of hydrocarbons.

Finally, the mass spectra of selected compounds also can be examined to determine whether any diagnostic or indicator chemicals are present in the sample. For example, the PAH retene (1-methyl-7-isopropylphenanthrene) is present in significant concentrations in coal, but at much lower concentrations in coal tar or petroleum products. Thus, the ratio of retene to chrysene can be used to determine whether coal fines are present in a soil sample and to explain some of the hydrocarbon patterns observed at sites where coal was used extensively. Further, unknown compounds can be identified and their presence used as clues to the source(s) of the chemicals.

The GC/MS data generated by META for the Hempstead former MGP site study were reported and utilized both qualitatively and quantitatively. First, the concentrations of MAHs, PAHs and alkylated PAHs were calculated and included in Appendix D. These concentrations were utilized to estimate contaminant levels in samples, to generate bar graphs (Appendix E) and compare compound ratios. The ratios were used to generate plots for identifying samples with similar compositions.

The GC/MS data also were used qualitatively by generating extracted ion current profiles (EICs) for selected compounds and compound groups of forensic value (Appendix F). For example, the EICs for selected “biomarker” compounds including normal alkanes, isoprenoid hydrocarbons, alkylcyclohexanes, hopanes and steranes are shown on the first page of the EIC report for each sample. These compound groups are commonly used in hydrocarbon source identifications and weathering evaluations. For example, the estimated boiling point range of a refined petroleum product, as indicated by the location of the alkanes and unresolved complex mixture (UCM) on the chromatogram, can be used to determine whether the material is kerosene, diesel, No. 6 fuel oil, or some other product. Similarly, hopanes and steranes are known to be present in crude oils and some refined petroleum products, but not found in coke oven tars and rarely found in MGP tars. Therefore, the presence of hopanes and steranes is monitored to confirm and refine the petrogenic versus pyrogenic assessment conducted with the PAH profiles.

Specific Classification of Samples

Sometimes it is important to classify samples more narrowly than just petrogenic or pyrogenic. For example, within the petrogenic group, samples may contain gasoline, heating oil, or lubricating oil. Even more precise classifications may be necessary, such as grouping samples by type of gasoline. These classifications are determined by matching the composition and resulting chromatographic patterns to those of known materials using the methods described above. Similarly, within the pyrogenic group, samples may contain coal tar from a coke plant, oil tar from a refinery, oil tar from an MGP, or combustion-derived PAHs from any number of sources. As with the petrogenic substances, pyrogenic substances are classified using combinations of GC/FID fingerprints, PAH ratios, diagnostic compound evaluations, physical

properties, and other information.

Types of Common Petroleum Products

There are many different products derived from petroleum (10). Generally, they can be broken down into gasoline and gasoline-range products, kerosene and kerosene-range products, distillate fuel oils, heavy fuel oils and residual oils, highly refined oils (e.g., lubricating and hydraulic), and asphalt. For the purpose of identifying these materials in the environment, these general categories are separated by their chemical and physical properties. Figure 2 shows some examples of common petroleum products.

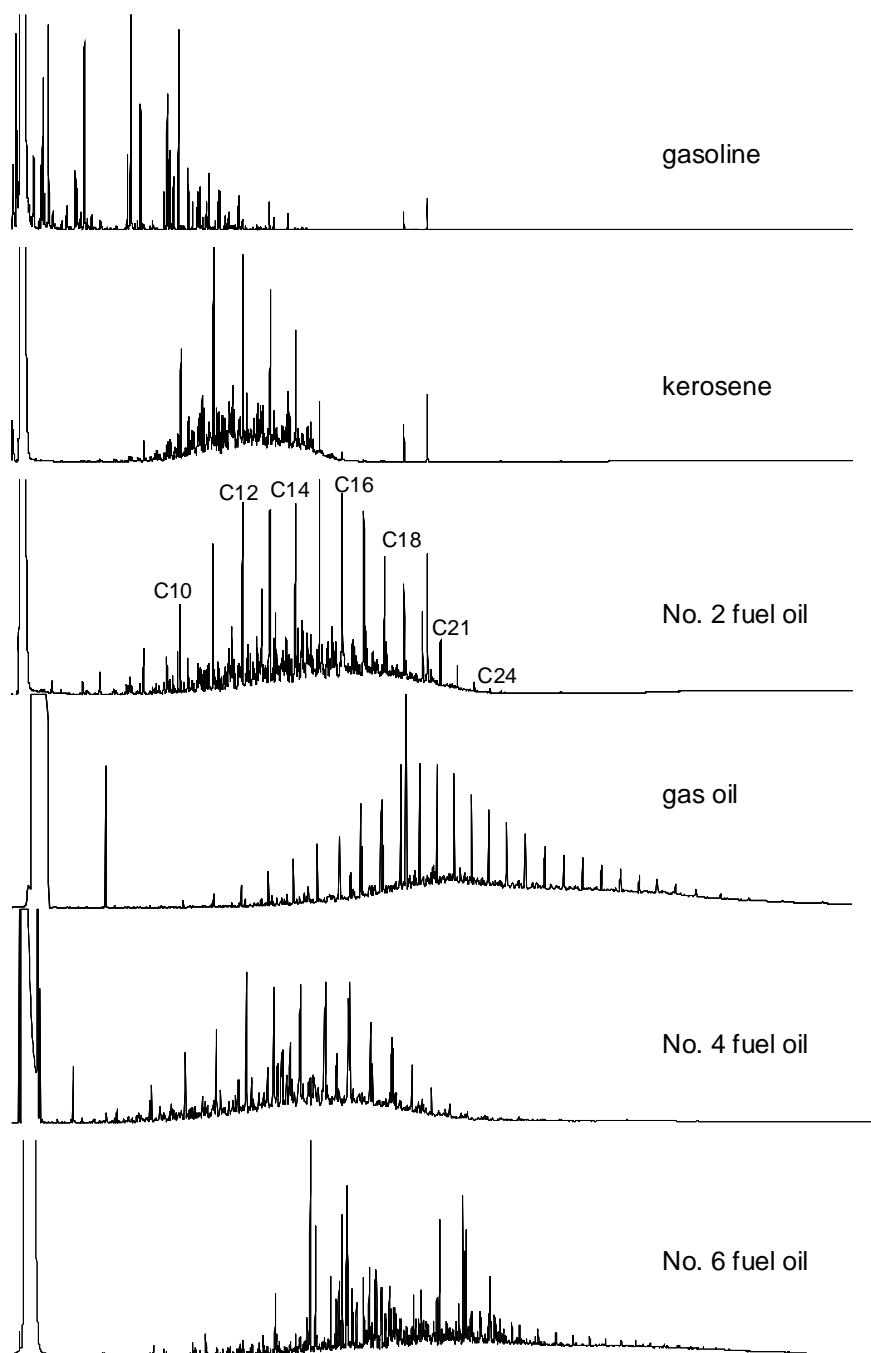
It is important to note that the chemical compositions vary within each type of petroleum product. For example, not all No. 2 fuel oils are the same. Table 2 lists the general definitions of the various common petroleum products as provided by the American Petroleum Institute (7).

Generally, distinguishing gasoline from kerosene, or gasoline from diesel fuel is straightforward using a qualitative assessment of the results of GC/FID and GC/MS analyses discussed above. Distinguishing different sources of No. 2 fuel oil, or distinguishing No. 2 fuel oil from some gas oils and No. 4 fuel oils relies on careful comparisons of such characteristic information as PAH ratios and petroleum biomarker patterns (3,11).

Types of Common Pyrogenic Substances

As discussed above, pyrogenic substances principally consist of PAHs. They originate from two broad sources: coal tar and coal tar products (creosote, road tar, building materials) or incomplete combustion. The most common methods for assessing the source of pyrogenic substances uses PAH ratios and chemical fingerprints. A discussion of the various techniques can be found in numerous references, including (1) and (2). Figure 3 illustrates some examples of common pyrogenic substances.

Figure 2. Common Petroleum Products Analyzed by GC/FID

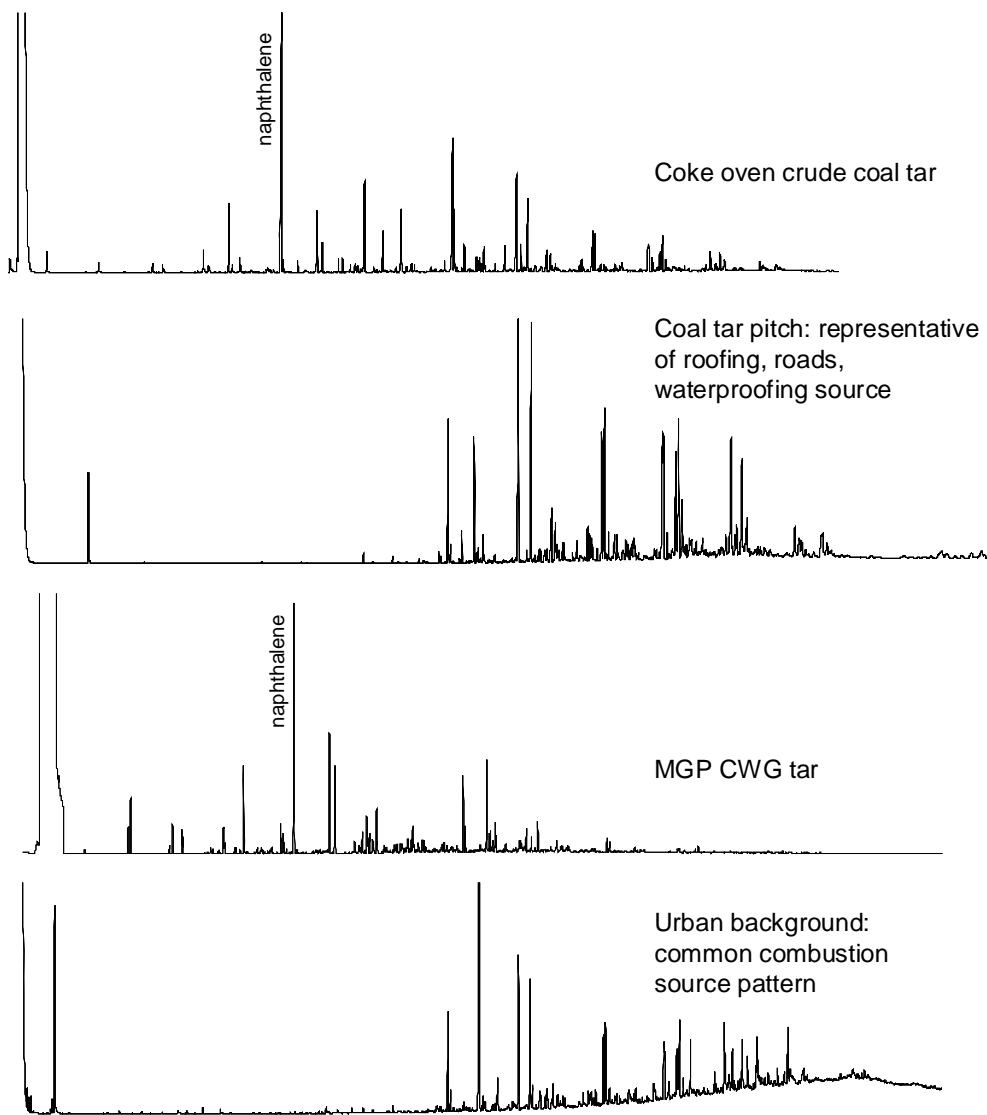


Notes: petrogenic substances contain complex mixtures of aliphatic and aromatic hydrocarbons of varying boiling point ranges; their patterns are characterized by a regular series of normal alkanes (individual peaks) and an unresolved complex mixture (UCM) of other compounds.

Table 2. Summary Definitions of Common Petroleum Products

Petroleum Product	Definition/Description (7)
Motor Gasoline	<p>A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives. Motor gasoline, as given in ASTM Specification D4814, includes a range in distillation temperatures from 122° to 158° F at the 10 percent recovery point from 365° to 374°F at the 90 percent recovery point.</p> <p>In terms of gas chromatography by GC/FID, motor gasoline consists of a complex mixture of compounds between about pentane (C5) and undecane (C11). However, some portion of gasoline is more volatile than pentane, and some portion is less volatile than undecane.</p>
Kerosene	<p>A refined petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent recovery point, and a final boiling point of 572° F.</p> <p>There are several kerosene-based products, including jet fuel, stove oil, and lamp oil. They are similar in boiling point range but vary in specific composition. By GC/FID kerosene consists of a complex mixture of compounds between about decane (C10) and hexadecane (C16).</p>
Distillate Fuel Oil	<p>A general definition for one of the petroleum fractions produced in conventional distillation of crude oil. Included are products known as No.1, No.2, and No.4 fuel oils, as well as diesel fuel. The boiling points of the various distillate products vary by purpose, and can vary from a 10% recovery point of 420°F to a 90% recovery point of 640°F.</p> <p>The boiling point range of No. 2 distillate fuel oil includes dodecane (C12) to about eicosane (C20). However, as stated above, some of the distillate fuel oil is lower boiling than dodecane and some is higher boiling than eicosane, as illustrated in Figure 2.</p>
No. 4 Fuel Oil	<p>There are two general types of No. 4 fuel oil. One type is a heavy distillate or blend of heavy distillate and residual fuel oil for low and medium speed diesel engines (e.g., stationary engines).</p> <p>A second common type of No. 4 fuel oil is refined for commercial burners. It is a blend of distillate fuel oil and residual fuel oil stocks. As such, No. 4 burner fuel contains both a heavy distillate component and a residual oil component, usually at much lesser relative amounts.</p> <p>By GC/FID, No. 4 fuel oil is similar to No. 2 distillate fuel oil; however, some may contain detectable amounts of heavier oil.</p>
Gas Oil	<p>A petroleum distillate having a viscosity between kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas.</p> <p>Light gas oils are similar to No. 2 fuel oils in composition and were the feedstock of choice for gas making at MGPs for many years. Heavy gas oils contained hydrocarbons between about eicosane (C20) and triacontane (C40), and is similar to No. 6 fuel oil.</p>
No. 6 Fuel Oil	<p>A high viscosity fuel oil for commercial and industrial heating and power generation. No. 6 fuel oils contain a substantial amount of heavy-grade residual fuel oil. Residual fuel oils are the heavy oils that remain after the distillate fuel oils and lighter hydrocarbons (gasoline and kerosene) are removed in a refinery.</p> <p>The range of compositions, and therefore the range of GC/FID fingerprints of No. 6 fuel oil is large. Figure 2 illustrates one No. 6 fuel oil used for power generation. No. 6 fuel oils can contain hydrocarbons ranging from about dodecane (C12) to greater than tetracontane (C40).</p>

Figure 3. Examples of Pyrogenic PAH Sources



Notes: the hydrocarbon patterns of pyrogenic sources are dominated by parent PAHs; coal tar, creosote, MGP tar, and related materials have substantially more low molecular weight PAHs, especially naphthalene, than do common coal tar products, weathered tar, and combustion sources.

Results and Discussion

This section presents the combined forensic interpretation of selected data from the former Hempstead MGP remedial investigation (RI) report and NAPL and soil samples analyzed by META between July 2002 and November 2008. The section is broken into subsections that separately discuss the RI data and the META analyses. General interpretations and conclusions based on all the available data are provided in the last section of this report.

Qualitative Review of GC/FID and GC/MS Chromatograms

The GC/FID and GC/MS data generated by META were reviewed and the nature of the hydrocarbons in each sample assessed. The samples were categorized as containing tar-like material (TLM), distillate fuel oil, mixtures of TLM and distillate fuel oil, or other unidentified material, as per the definitions summarized in Table 2. Samples classified as distillate fuel oil could contain No. 2 fuel oil, No. 4 fuel oil, gas oil, or mixtures of these. However, whenever possible, a specific identification of the type of distillate fuel oil was made. Samples classified as other unidentified material typically contained unidentifiable patterns or the quality of the chromatogram was not sufficient to make a clear identification.

Then, META's data were compared to available data and reports generated by others (Appendices A and G), and the following observations were made.

In the context of the former Hempstead MGP site, *petrogenic* refers to various refined petroleum products that may have been used, handled and stored at the former Hempstead MGP, or at the Oswego Oil Service Corp (Oswego Oil), or by other nearby non-MGP operations, such as the former Mollineaux Bros. facility.

According to a 1983 County of Nassau, New York fire marshal storage tank registration, Oswego Oil handled and stored gasoline, kerosene, and fuel oil (Appendix G). As stated above, the designation, "fuel oil," is somewhat ambiguous because it is unclear whether it refers to No. 2, No. 4 or No. 6 fuel oil.

In a May 31, 2002 letter, Oswego Oil, through its consultant Kost Environmental Services, Inc., states that No. 2 fuel oil is "its only product of distribution." This conflicts with the fire marshal report. However, for the purpose of this forensic study, it was assumed that Oswego Oil stored and handled gasoline, kerosene, and distillate fuel oil, possibly No. 2 or No. 4. Given the records, the presence of No. 6 fuel oil was also possible.

The greatest amount of petroleum-derived material used by the MGP was the carburetion oil for the carbureted water gas portion of the plant. The types of oil used for carburetion varied among the many MGPs in the U.S., as well as over time at a single MGP. No specific information was available on the types of oil used at the Hempstead former MGP, however, based on general MGP operations, the carburetion oils could have included naphtha (gasoline-range), gas oil (a middle distillate), residual oil (similar to No. 6 oil), or crude oil. The 1965 Gas Engineers

Handbook (12) states that:

“for many years the oil used for making carbureted water gas and for other enriching purposes was known as gas oil. It has the same characteristics as diesel oil” [No. 2 fuel oil]

This basic model of oil use at the Hempstead former MGP was considered during the review and interpretation of the forensic data.

Evaluation of Data Presented in Earlier META Reports

NAPL and subsurface soil samples were analyzed by META from July 2002 until February 2008 and reported previously (Appendices H-N). Those data were reviewed in the context of additional information from the RI and from more recent analyses of samples from the site and updated observations regarding the data are as follows. The relative amounts of fuel oil and TLM were estimated using the method described later in this report and the results are shown graphically on Figure 5 and Figure 6.

1. Samples of LNAPL were collected from monitoring wells HIMW-10S (just east of the Oswego Oil property) and HIMW-11S (just west of the Oswego Oil property). Samples HIMW-10S and HIMW-11S were analyzed by META for GC/FID fingerprint only (Appendix H). The boiling point range and other features of the chromatograms indicated that both samples contained distillate fuel oil, likely No. 2 fuel oil or diesel fuel.
 - a. The distillate fuel oil in HIMW-10S appeared unweathered, more likely than not released within a few years of sample collection. There were no indications of other petroleum products or other chemicals in the sample. It is highly unlikely that the fuel oil in HIMW-10S originated at the former MGP.
2. Sample HIMW-11S contained a similar distillate fuel oil; however the oil was substantially weathered (as indicated by the lack of normal alkanes). The HIMW-11S oil was likely in the ground for more than 10 years and possibly more than 20 years. Based on the GC/FID fingerprint, the distillate fuel oil in HIMW-11S appeared to be the same as HIMW-10S, but older. The site plan for the Oswego Oil facility shows several fuel storage tanks located near HIMW-11S.
 - a. HIMW-11S also contained polycyclic aromatic hydrocarbons (PAHs) in a pyrogenic pattern including naphthalene, phenanthrene, pyrene, benzo(a)pyrene and others. These compounds in this distribution are not found in distillate fuel oils and came from another source. It is likely that a majority of sample HIMW-11S contained fuel oil while the remaining mass was a tar-like substance. The comingling may have occurred in the subsurface soil or prior to release. There were insufficient data to confirm a mechanism.
 - b. The distillate fuel oils in samples HIMW-10S and HIMW-11S were similar, except for the degree of weathering. They could not be compared further, using

for example, weathering-resistant chemical ratios and biomarker compound patterns because those data were not available. Samples HIMW-10S and HIMW-11S were analyzed by META in July 2002 for GC/FID fingerprint only.

3. Soil samples HISB-60 (17'-19') and HISB-58 (21'-24') were collected on the western portion of the former MGP site near the former drip oil tanks and paint house. Both samples contained petrogenic substances (Appendix K). The petrogenic substances could not be identified specifically, but were similar to some petroleum solvents and other specialty petroleum-derived products. The substances likely were not carbureted water gas (CWG) oil because they were not similar to the major historic carburetion oils, including naphtha, gas oil, and residual oils. The petrogenic matter in samples HISB-60 and HISB-58 also was not the same as in HIMW-10S or HIMW-11S. Further, because borings HISB-60 and HISB-58 were a substantial distance cross-gradient from the Oswego Oil site, it is unlikely that the substances found at those locations originated at the Oswego Oil site or impacted the Oswego Oil site.
4. Soil samples HISB-70 (25'-27') and HISB-70 (31'-33') were collected south of the former MGP site and southwest of Oswego Oil in the LIRR right-of-way. Both samples contained a weathered distillate fuel oil from an unknown source mixed with pyrogenic PAHs indicative of former MGP TLM (Appendix J). The relative amount of petrogenic to pyrogenic matter in the two samples varied suggesting that the petrogenic and pyrogenic substances were released at different times and comingled. Also, the petrogenic material in HISB-70 was similar to, but not the same as, the petrogenic substance in HIMW-11S; however, the lack of GC/MS data for sample HIMW-11S and the confounding influence of relatively high concentrations of pyrogenic hydrocarbons prevented a quantitative comparison.
5. Samples OSMW-2 (20-25'), OSMW-2 (30-35'), and OSMW-3 (20-25') contained mixtures of petrogenic and pyrogenic hydrocarbons with more pyrogenic matter in sample OSMW-2 (20-25') and OSMW-2 (30-35') than in sample HIMW-11S, collected nearby. The petrogenic portions of samples OSMW-2 (20-25'), OSMW-2 (30-35'), and OSMW-3 (20-25') were somewhat similar and consisted of a distillate fuel oil. Both were severely weathered, indicating a residence time in the ground of many years. Small differences in the boiling point range, and alkylcyclohexane and sesquiterpane distributions suggest that the petrogenic hydrocarbons in samples OSMW-2 and OSMW-3 were somewhat different and may represent different batches of oil over time or some comingling of different oils in the subsurface. The petrogenic material in OSMW-2 and OSMW-3 appeared to be different from HIMW-10S and HIMW-11S.

Evaluation of Selected Data Presented in the former Hempstead MGP Remedial Investigation

In addition to samples analyzed by META's laboratory, the GC/FID or GC/MS chromatograms for some samples analyzed by other laboratories for the RI were reviewed by META, and the following observations made based on a qualitative review of the chromatograms, as summarized in Table 3. Copies of the chromatograms for the samples discussed below are provided in Appendix A to this forensics report.

1. Soil sample HISB-40 (18'-20') collected southwest of Oswego Oil contained distillate fuel oil. No TLM was present. The fuel oil appeared substantially weathered based on the lack of normal alkanes.
2. Soil sample HISB-40 (26'-28') also collected southwest of Oswego Oil contained weathered distillate fuel oil. No TLM was present.
3. Soil sample HISB-40 (32'-34') contained weathered TLM with little or no petrogenic component, indicated by a wide range of parent PAHs, including naphthalene, phenanthrene, and higher molecular weight PAHs.
4. Soil sample HISB-41 (26'-28'), collected adjacent to and just south of Oswego Oil contained a weathered distillate fuel oil similar to HIMW-11S and HIMW-10S. The sample also showed some pyrogenic PAHs, particularly naphthalene, not expected in distillate fuel oil.
5. Soil sample HISB-43 (0-2') was a surface soil sample collected along the former Long Island Railroad (LIRR) right of way, just east of the former MGP, and northwest of the Oswego Oil property. The sample appeared to contain a mixture of severely weathered heavy oil and TLM (as indicated by the presence of naphthalene, methylnaphthalenes, and other PAHs). In contrast, sample HISB-43 (16-18') contained a distinct unresolved mass (UCM) with no significant individual peaks. Based on the shape and estimated boiling point range of the UCM, the sample could contain one or more refined oils (lubricating and/or hydraulic) or extremely weathered fuel oil. The degree of weathering suggests that if the original source was fuel oil, it has been in the environment for many years, likely decades, and is more severely weathered than any other fuel oil found at the site. The exact nature and source of the UCM could not be determined with just the chromatogram. No TLM was present in the sample.
6. Sample HISB-43 (26-28') and HISB-43 (61-63') contained no indentifiable pattern in either chromatogram.
7. Soil samples HISB-44 (6'-8') and HISB-44 (16'-18') were collected just east of the former MGP site along the former LIRR right of way. Sample HISB-44 (6-8') contained a wide boiling point range distillate fuel oil at an intermediate degree of weathering. Assuming expected alkane weathering rates (13), the fuel in the samples may have been released within the last 20 years or so. Alternatively, the samples at HISB-44 could contain a mixture of older and more modern petroleum products. Both samples also contained lesser amounts of PAHs from unidentified sources.
8. Soil sample HISB-44 (24-26') contained TLM, indicated by a wide range of parent PAHs, including naphthalene, phenanthrene, and higher molecular weight PAHs.
9. Samples DGP-53/S-1/0-4, DGP-55/S-1/0-5, and DGP-56/S-1/0-4 were collected on the former Hempstead MGP site in the vicinity of the former MGP boiler room. Samples DGP-53 and DGP-55 appeared to contain relatively low levels of unidentified, severely

weathered, petroleum. Sample DGP-56 had no detectable pattern.

The qualitative identification of petrogenic or pyrogenic material at each location for which data were available suggest various tar-like and distillate fuel oil-like substances adjacent to and immediately downgradient of the former MGP. The data also show distillate fuel oil and TLM adjacent to the Oswego Oil property. There appeared to be some variability in the composition of the distillate fuel oil, suggesting that two or more types were present in the area. In addition, the samples exhibited a range of states of environmental degradation from slight to extreme, suggesting that the fuel oil at the site ranges in age from relatively fresh to very old. This is consistent with reported releases of fuel oil at Oswego Oil.

The qualitative evaluations of the chromatograms from the RI are summarized in Table 3.

Table 3. Summary Descriptions and Tentative Identifications: Review of Chromatograms Generated by Other Laboratories

Field ID	Description	Total BTEX (mg/kg)	Total PAH ₁₆ (mg/kg)	Classification	Tentative Identification
HISB-40 (18'-20')	Broad UCM from about dodecane (C12) to greater than about tricontane (C30), with isoprenoids (pristane and phytane) present; few individual peaks	NA	NA	petrogenic	Weathered distillate fuel oil
HISB-40 (26'-28')	Broad UCM from about dodecane (C12) to greater than tricontane (C30), with isoprenoids (pristane and phytane) present	NA	NA	petrogenic	Weathered distillate fuel oil
HISB-40 (32'-34')	Wide range parent PAHs, including naphthalene	NA	NA	pyrogenic	Weathered TLM
HISB-41 (26'-28')	Broad UCM from about decane (C10) to greater than about eicosane (C20), with isoprenoids (pristane and phytane) present; parent PAHs including naphthalene present	NA	NA	Petrogenic/ pyrogenic	Weathered distillate fuel oil plus TLM
HISB-43 (0'-2')	Broad heavy weight UCM with high molecular weight PAHs (HPAHs)	NA	NA	Petrogenic/ pyrogenic	Unknown
HISB-43 (16'-18')	Broad UCM with few distinct peaks	NA	NA	petrogenic	Unknown
HISB-43 (26'-28')	No identifiable chromatographic pattern	NA	NA		
HISB-43 (61'-63')	No identifiable chromatographic pattern	NA	NA		
HISB-44 (6'-8')	Broad UCM from about C12 to greater than C30 with a regular series of normal alkanes present; HPAHs also present	NA	NA	Petrogenic/ pyrogenic	Weathered distillate fuel oil plus unknown source PAHs
HISB-44 (16'-18')	Same as HISB-44 (6'-8')	NA	NA	Petrogenic/ pyrogenic	Weathered distillate fuel oil plus unknown source PAHs
HISB-44 (24'-26')	Wide range parent PAHs, including naphthalene, phenanthrene, and higher molecular weight PAHs	NA	NA	pyrogenic	TLM
DGP-53/S-1/0-4	Unknown	NA	NA		Unknown
DGP-55/S-1/0-5	Unknown	NA	NA		Unknown
DGP-56/S-1/0-4	Unknown	NA	NA		Unknown

NA – not available



Results of Laboratory Testing by META

META received nine soil samples and one LNAPL sample from the former Hempstead MGP site on November 4 and November 7, 2008, respectively. The sample delivery group numbers for those samples were HC081104 and HC081107. Those data were combined with the results of earlier analyses and are discussed in this section.

All together, META received and analyzed twenty-two soil (22) samples and five (5) NAPL samples. The samples were collected over several years and in several sample delivery groups (SDGs) from July 2002 to November 2008. Table 1 provides a cross-reference of sample IDs and report dates from which the data were obtained.

Laboratory reports for all of the samples, except SDGs HC081104 and HC081107 were submitted previously on the dates shown in Table 1. Appendices H through N contain copies of each of those individual laboratory reports.

The results of analyses of samples from SDGs HC081104 and HC081107 are included in Appendices B through F of this report.

Sample-Specific Observations

The GC/FID chromatograms, chemical concentration data, and EICPs for all samples analyzed by META were reviewed and sample-specific descriptions of the nature of the hydrocarbons presented in Table 4.

Summary of SDGs HC081104 and HC081107

As shown in Table 4, all soil samples in SDGs HC081104 and HC081107, except HISB-113/25-30 and HISB-113/30-35, exhibited both pyrogenic and petrogenic characteristics. Similarly, the NAPL sample, HISB-112/TW/Product exhibited both pyrogenic and petrogenic characteristics (App B; App D).

The pyrogenic material in all of the samples that contained pyrogenic PAHs exhibited a range of degrees of weathering. However, the values of weathering-resistant diagnostic ratios, such as fluoranthene/pyrene (Fl/Py) and benzofluorenes/methylpyrenes (BF/MP), were similar suggesting that the pyrogenic material had a common source. Further, as seen in Table 5 and Figure 7 and Figure 8, the pyrogenic material had characteristics similar to TLM in META's reference library obtained from former carbureted water gas (CWG) MGPs. The mean Fl/Py ratio of the 8 samples from SDGs HC081104 and HC081107 with pyrogenic character (not including duplicate analyses) was 0.649 with a percent relative standard deviation of 7.3% (within the range commonly seen for TLM from CWG plants (Mauro 2000)). Some of the Fl/Py ratio variability can be attributed to the petrogenic material in the samples which skews the Fl/Py ratios to lower values. A similar correlation is seen in the BF/MP and other ratios.

Table 4. Summary Descriptions and Tentative Identifications: Review of Laboratory Data Generated by META

Field ID	Lab ID	Description	Total BTEX (mg/kg)	Total PAH ₁₆ (mg/kg)	Classification	Tentative Identification
HIMW-10S	DB020717-01	Regular series of normal alkanes from C8 (octane) to C25 (pentacosane) with UCM (Fl/Py – NC)	NC	NC	petrogenic	distillate fuel oil
HIMW-11S	DB020717-02	Similar to HIMW-10S; also contains wide range parent PAHs (Fl/Py – NC)	NC	NC	petrogenic/ pyrogenic	Mix weathered distillate fuel oil and TLM
HIMW-01S	DB020717-03	Wide range parent PAHs, naphthalene most abundant; MAHs also present (Fl/Py – NC)	NC	NC	pyrogenic	TLM
HIMW-06S	DB021101-01	Similar to HIMW-01S (Fl/Py – NC)	NC	NC	pyrogenic	TLM
HISB-78 (26'-28')	HT040308-01	Broad UCM that elutes from about C9 (nonane) to more than C26 (hexacosane) with a maximum at about C18 (octadecane) in the GC/FID chromatogram; isoprenoid, steranes, and terpanes/hopane hydrocarbons present; normal alkanes absent; also, low levels parent PAHs; Fl/Py = 0.670	8.35	54	petrogenic/ pyrogenic	Weathered distillate fuel oil plus unidentified PAH source
HISB-79 (34'-35')	HT040308-02	Wide range of parent and alkylated PAHs, naphthalene most abundant; broad UCM and isoprenoid hydrocarbons; Fl/Py = 0.641	90.1	410	pyrogenic/ petrogenic	Mix TLM, likely CWG and weathered distillate fuel oil
HISB-70 (25'-27')	HT030913-01	Wide range of parent and alkylated PAHs, naphthalene most abundant; broad UCM and isoprenoid hydrocarbons; Fl/Py = 0.637	20.1	147	pyrogenic/ petrogenic	Mix TLM, likely CWG and weathered distillate fuel oil
HISB-70 (31'-33')	HT030913-02	Wide range of parent and alkylated PAHs, naphthalene most abundant; broad UCM and isoprenoid hydrocarbons; Fl/Py = 0.700	9.26	80	pyrogenic/ petrogenic	Mix TLM, likely CWG and weathered distillate fuel oil
HISB-60 (17'-19')	HT030930-01	Narrow UCM from about C10 (decane) to C20 (eicosane), with substantial normal alkanes; low level HPAHs; Fl/Py = 0.526	10.6	124	petrogenic/ pyrogenic	Kerosene-range; possible wash oil plus unidentified PAH source

Field ID	Lab ID	Description	Total BTEX (mg/kg)	Total PAH ₁₆ (mg/kg)	Classification	Tentative Identification
HISB-58 (21'-24')	HT031006-01	Similar to HISB-60 (17'-19'); FI/Py = 0.520	8.61	87	petrogenic/ pyrogenic	Kerosene-range; possible wash oil plus unidentified PAH source
HISB-58 (30'-32')	HT031006-02	Wide range primarily parent PAHs; naphthalene most abundant; FI/Py = 0.512	13.1	443	pyrogenic	Probable CWG TLM
DGP-71	HC071228-01	Wide range of primarily parent PAHs, naphthalene most abundant; low level UCM and isoprenoid hydrocarbons; FI/Py = 0.604	14.0	702	pyrogenic/ petrogenic	Mix TLM, likely CWG and low levels of unidentified petrogenic material
DGP-71 dup	HC071228-01DUP	Same as DGP-71	14.8	771		
HISB-83 (5-10')	HC080118-01	Wide range of primarily parent PAHs, naphthalene most abundant; low level UCM and isoprenoid hydrocarbons; FI/Py = 0.474	2.24	33.5	pyrogenic/ petrogenic	Mix TLM, likely CWG and low levels of weathered distillate fuel oil
HISB-83 (10-15')	HC080118-02	Similar to HISB-83 (5-10); FI/Py = 0.637	38.3	211	pyrogenic/ petrogenic	Mix TLM, likely CWG and low levels of weathered distillate fuel oil
HISB-83 (10-15') dup	HC080118-02DUP	Same as HISB-83 (10-15)	36	210	pyrogenic/ petrogenic	Mix TLM, likely CWG and low levels of weathered distillate fuel oil
OSMW-2 (20-25')	HC080209-01	Wide range of primarily parent PAHs, relatively low level naphthalene; broad UCM and isoprenoid hydrocarbons, sesquiterpanes; FI/Py = 0.638	26.8	284	petrogenic/ pyrogenic	Mix weathered TLM, likely CWG and weathered distillate fuel oil
OSMW-2 (20-25') dup	HC080209-01DUP	Same as OSMW-2 (20-25'); FI/Py = 0.638	24.4	277	petrogenic/ pyrogenic	Mix weathered TLM, likely CWG and weathered distillate fuel oil

Field ID	Lab ID	Description	Total BTEX (mg/kg)	Total PAH ₁₆ (mg/kg)	Classification	Tentative Identification
OSMW-2 (30-35')	HC080209-02	Wide range of primarily parent PAHs, relatively low level naphthalene; broad UCM and isoprenoid hydrocarbons, sesquiterpanes; FI/Py = 0.634	49.2	383	pyrogenic/ petrogenic	Mix weathered TLM, likely CWG and weahtered distillate fuel oil
OSMW-3 (20-25')	HC080209-03	Broad UCM with isoprenoid, sesquiterpane, sterane, and terpane/hopane hydrocarbons present; normal alkanes absent; also, wide-range parent PAHs at much lower relative amounts; FI/Py = 0.607	5.54	64.5	petrogenic/ pyrogenic	Weathered distillate fuel oil plus weathered TLM, likely CWG
HISB - 110/20-25	HC081104-02	Broad UCM; isoprenoid, sesquiterpane, steranes, and terpanes/hopanes hydrocarbons present; normal alkanes absent; also, wide-range parent PAHs; FI/Py = 0.647	20.8	73.8	petrogenic/ pyrogenic	Weathered distillate fuel oil plus weathered TLM, likely CWG
Duplicate of HISB - 110/20-25	HC081104-02DUP	Same as HISB-110/20-25; FI/Py = 0.646	24.1	83.1	petrogenic/ pyrogenic	Weathered distillate fuel oil plus weathered TLM, likely CWG
HISB - 110/25-29	HC081104-03	Same as HISB-110/20-25; FI/Py = 0.687	17.1	125	petrogenic/ pyrogenic	Weathered distillate fuel oil plus weathered TLM, likely CWG
HISB - 110/29-30	HC081104-04	Wide range of primarily parent PAHs, relatively low level naphthalene; low level broad UCM and isoprenoid hydrocarbons, sesquiterpanes present; steranes and triperpanes absent; FI/Py = 0.732	46.5	917	pyrogenic/ petrogenic	Mix weathered TLM, likely CWG and weathered distillate fuel oil
HISB - 111/20-25	HC081104-05	Broad UCM; isoprenoid, sesquiterpane, steranes, and terpanes/hopanes hydrocarbons present; normal alkanes absent; also, wide-range parent PAHs; FI/Py = 0.662	22.8	116	pyrogenic/ petrogenic	Mix weathered distillate fuel oil plus weathered TLM, likely CWG
HISB - 111/30-35	HC081104-06	Wide range of primarily parent PAHs, relatively low level naphthalene; low level broad UCM and isoprenoid hydrocarbons, sesquiterpanes present; steranes and triperpanes absent; FI/Py = 0.652	47.2	417	pyrogenic/ petrogenic	Mix weathered TLM, likely CWG and weathered distillate fuel oil

Field ID	Lab ID	Description	Total BTEX (mg/kg)	Total PAH ₁₆ (mg/kg)	Classification	Tentative Identification
HISB - 112/25-30	HC081104-07	Broad UCM that elutes from about 10 min (C9 - nonane) to about 40 min (C24 - tetracosane) with a maximum at about 26 min (C16 - hexadecane); isoprenoid and sesquiterpane hydrocarbons present; normal alkanes, steranes, terpanes/hopanes absent; also wide-range parent PAHs; FI/Py = 0.586	10.6	141	petrogenic/ pyrogenic	Mix weathered distillate fuel oil; plus weathered TLM; possible CWG
HISB - 112/32-35	HC081104-08	Wide-range parent and alkylated PAHs; 2- and 3-ring PAHs most abundant; UCM that elutes from about 10 min (C9 - nonane) to about 40 min (C24 - tetracosane) with a maximum at about 26 min (C16 - hexadecane); isoprenoid and sesquiterpane hydrocarbons present; normal alkanes, steranes, terpanes/hopanes absent; FI/Py = 0.685	13.4	293	pyrogenic/ petrogenic	Mix weathered distillate fuel oil; plus weathered TLM; possible CWG
HISB - 113/25-30	HC081104-09	Soil sample dominated by a UCM that elutes from about 10 min (C9 - nonane) to about 40 min (C24 - tetracosane) with a maximum at about 26 min (C16 - hexadecane); isoprenoid and sesquiterpane hydrocarbons present; normal alkanes, steranes, terpanes/hopanes absent; FI/Py = 0.183	0.34	13.3	petrogenic	Weathered distillate fuel oil
HISB - 113/30-35	HC081104-10	Same as HISB-113/25-30; FI/Py = 0.211	1.47	21.2	petrogenic	Weathered distillate fuel oil
HISB-112 / TW / Product	HC081107-03	NAPL sample dominated by a UCM that elutes from about 10 min (C9 - nonane) to about 40 min (C24 - tetracosane) with a maximum at about 26 min (C16 - hexadecane) in the GC/FID chromatogram and by the GC/MS alkane and alkylcyclohexane extracted ion current profiles (EICPs); isoprenoid and sesquiterpane hydrocarbons present; normal alkanes, steranes, terpanes/hopanes absent; low levels of HPAHs; FI/Py = 0.596	463	6,400	petrogenic/ pyrogenic	Mix weathered distillate fuel oil plus TLM
Duplicate of HISB-112 / TW / Product	HC081107-03DUP	Same as HISB-112/TW/Product; FI/Py = 0.598	628	9,960	petrogenic/ pyrogenic	Mix weathered distillate fuel oil plus TLM

NC – not calculated



Figure 8 shows that the Fl/Py ratios remained relatively constant over a wide range of total PAH concentrations, indicating the same TLM source.

No samples exhibited PAH ratios characteristic of coal tars or creosote.

Petrogenic Substances

As discussed above, the potential sources of petrogenic substances identified at the site include, but are not limited to,

- Refined petroleum products handled at the Oswego Oil Property; these include gasoline, kerosene, and fuel oils,
- Railroad diesel and other oils associated with former railroad operations in the LIRR right-of-way,
- Coal, gas oil and other petroleum products utilized by the former MGP, and
- Petroleum products stored and handled by other operations in the vicinity of the former Hempstead MGP site such as the former Mollineaux Bros. facility located at the corner of Intersection Street and Sealey Avenue.

As discussed in the introduction to this forensic report, the compositions of many of these types of petroleum products are similar. This was especially true for the distillate fuel oils which include such products as No. 1 diesel, No. 2 diesel, No. 2 fuel oil, No. 4 fuel oil, and gas oil (7). Further, alteration of the chemical composition of these products observed at the site ranged from slight to extreme after they were released to the environment. A wide range of degrees of weathering was observed in the petrogenic components of samples from the former Hempstead MGP site. Also, none of the samples contained heavy or residual fuel oils, such as No. 6 oil, with the possible exception of samples HISB-43 (0-2') and HISB-43 (16'-18'). Therefore, whenever the data in this study indicated the presence of middle to heavy weight distillate fuel oil or its residues, it was classified as distillate fuel oil.

The locations where distillate fuel oil was found below 25 feet below ground surface are shown on Figure 5. The locations where distillate fuel oil was found above 25 feet bgs are shown on Figure 6.

Additional discrimination within the distillate fuel oil category was made using selected biomarker patterns as discussed below.

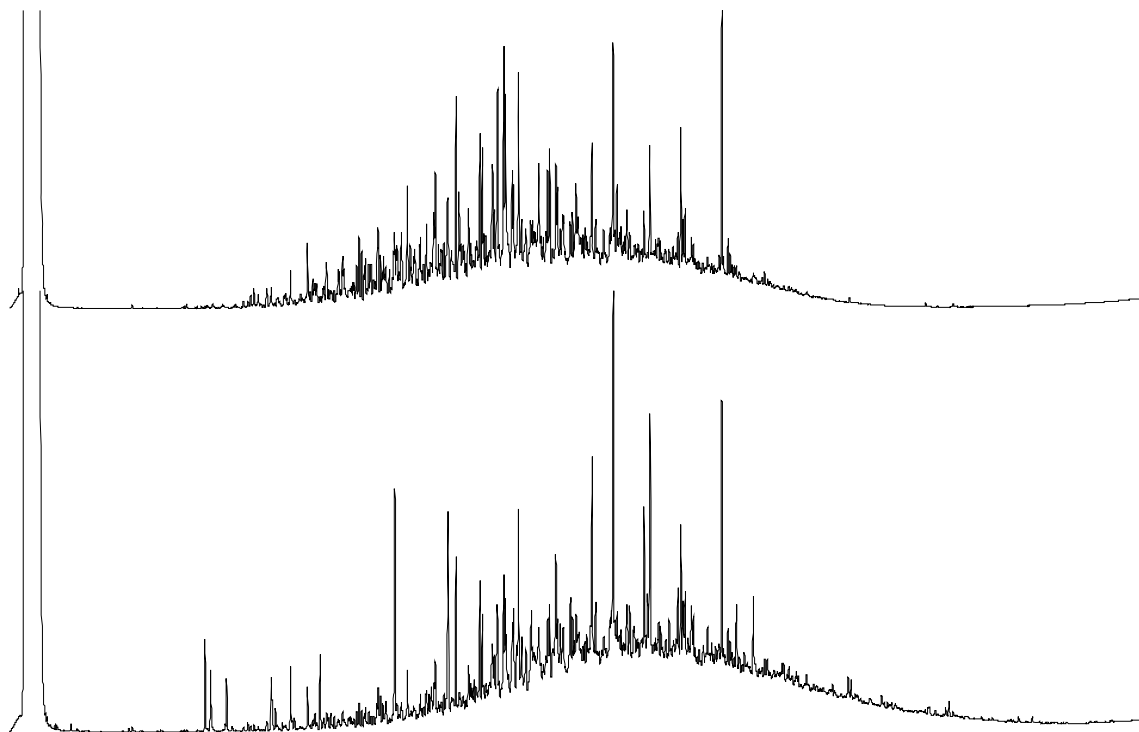
A combination of GC/FID fingerprints, PAH ratios, and biomarker patterns were used to compare the distillate fuel oil among the samples for which those data were available. The GC/FID fingerprints and GC/MS EICPs were examined for the boiling point range and UCM profiles. For example, Figure 4 illustrates the differences between the lighter and heavier petroleum products found. Specifically, the patterns of alkylcyclohexanes, sesquiterpane biomarkers (weathering-resistant components of distillate fuel oils), and the presence or not of

terpanes and sterane biomarkers were examined (Appendix O).

The differences among the petrogenic materials are illustrated by the EICPs in Appendix O, by double ratio plots, Figure 9, Figure 10, and Figure 11, and discussed in the following bullets. The data are summarized in Table 5.

- Sample OSMW-3 (20-25'), a soil sample collected adjacent to the former Oswego Oil Property, contained primarily petrogenic material characterized by a broad UCM, isoprenoid hydrocarbons, a regular series of alkylcyclohexanes, sesquiterpane biomarkers, and low levels of higher molecular weight biomarkers including terpanes and steranes. The ratio of pristane to phytane was 1.425; the alkylcyclohexane series peaked at n-decylcyclohexane (CH-10); the ratio of C15-sesquiterpane/8 β (H)-homodrimane (3/10) was 0.997 and the ratio of 8 β (H)-drimane/8 β (H)-homodrimane (5/10) was 0.785; and the sample contained low level triterpanes and steranes. This pattern of biomarkers was labeled "A" in Table 5. Several other samples exhibited the "A" characteristics. Samples with A-character appeared to be severely weathered heavy distillate or a blend of heavy distillate and low levels of residual oil.
- Sample DGP-71, a soil sample from the former MGP site, contained small amounts of petrogenic material within a much greater mass of TLM. The petrogenic material was indicated by a regular series of normal alkanes and the presence of sesquiterpane biomarkers. It is not uncommon for TLM from former MGP sites to have some petrogenic character, apparently due to carryover of the feedstock coal or oil. The pattern of sesquiterpanes, listed as B in Table 5, was unlike that of any other sample except HISB-110 (29-30') (also a sample comprised of mostly TLM). This suggests that the petrogenic material in DGP-71 and HISB-110 (29-30') was not the source or a major source of the petrogenic material found in other samples because, as a minor component of TLM, all samples with this petrogenic material would necessarily have TLM. That was not observed. Also, the biomarker patterns in DGP-71 did not match those observed in majority of other samples with petrogenic substances at the site.

Figure 4. GC/FID Fingerprints of Soil Samples with Distillate Fuel Oil Patterns of Differing Boiling Point Ranges



- Sample HISB-112/TW/Product, an LNAPL sample from a boring down gradient of the Oswego Oil Property, exhibited characteristics similar to samples with A-character. However, the pristane/phytane ratio was higher, at 1.987; the alkylcyclohexane maximum was heptacyclohexane (CH-7); the 3/10 ratio was 1.292 and the 5/10 ratio was 0.904; and the sample did not contain detectable triterpanes and steranes. This pattern was labeled “C” in Table 5. Several samples exhibited C-character. The sample appeared to contain a different distillate fuel oil. The lack of terpanes and steranes suggests that the petrogenic material in HISB-112/TW-Product was weathered diesel, No.2 fuel oil, or No. 4-D fuel oil.
- Soil sample OSMW-2 (20-25’) collected from just west of the former Oswego Oil Property also exhibited characteristics similar to samples with A-character, except that the 5/10 sesquiterpane ratio was higher at 1.163 and there were no triterpanes or steranes detectable. This appeared to have been a fourth type of petrogenic material and was labeled “D” in Table 5. Sample OSMW-2 (20-25’) was the only sample with D-character. Samples with D-character were consistent with weathered diesel, No.2 fuel oil, or No. 4-D fuel oil.

Table 5. Selected Characteristics of the Petrogenic Material in Each Sample

Field ID	Lab ID	Pristane/Phytane	Alkylcyclohexane Maximum	S3/S10	S5/S10	Terpanes & Steranes	Pattern
HISB-78 (26'-28')	HT040308-01	1.86	CH-8	NA	NA	present	A
HISB-70 (25'-27')	HT030913-01	1.639	CH-10	NA	NA	trace	A
HISB-83 (5-10')	HC080118-01	1.575	CH-11	0.985	0.667	trace	A
HISB-83 (10-15')	HC080118-02	1.578	CH-9	1.095	0.791	present	A
HISB-83 (10-15') dup	HC080118-02DUP	1.576	CH-10	1.105	0.812	present	A
OSMW-3 (20-25')	HC080209-03-D	1.425	CH-10	0.977	0.785	trace	A
HISB - 110/20-25	HC081104-02	1.616	CH-10	0.964	0.759	present	A
Duplicate of HISB - 110/20-25	HC081104-02DUP	1.602	CH-10	0.984	0.728	present	A
HISB - 110/25-29	HC081104-03	1.642	CH-10	1.009	0.742	present	A
HISB - 111/20-25	HC081104-05	1.651	CH-10	1.006	0.765	present	A
mean		1.62		1.02	0.76		
DGP-71	HC071228-01-D2	1.477	none	0.679	1.109	none	B
DGP-71 dup	HC071228-01DUP-D2	1.525	none	0.634	0.961	none	B
HISB - 110/29-30	HC081104-04	1.722	CH-7	0.688	0.992	none	B
mean		1.57		0.67	1.02		
HISB-79 (34'-35')	HT040308-02	2.196	CH-7	NA	NA	none	C
HISB-70 (31'-33')	HT030913-02	1.751	CH-10	NA	NA	none	C
OSMW-2 (30-35')	HC080209-02-D	1.947	CH-7	1.73	0.953	none	C
HISB - 111/30-35	HC081104-06	2.072	CH-7	1.325	0.847	none	C
HISB - 112/25-30	HC081104-07	1.961	CH-7	1.235	0.883	none	C
HISB - 112/32-35	HC081104-08	2.102	CH-7	1.346	0.895	none	C
HISB - 113/25-30	HC081104-09	1.931	CH-7	1.168	0.935	none	C
HISB - 113/30-35	HC081104-10	2.08	CH-7	1.313	0.92	none	C
HISB-112 / TW / Product	HC081107-03	1.987	CH-7	1.292	0.904	none	C
Duplicate of HISB-112 / TW / Product	HC081107-03DUP	2.03	CH-7	1.299	0.936	none	C
mean		2.01		1.34	0.91		
OSMW-2 (20-25')	HC080209-01-D	1.498	CH-10	0.935	1.163	none	D
OSMW-2 (20-25') dup	HC080209-01DUP-D	1.484	CH-10	0.922	1.17	none	D
mean		1.49		0.93	1.17		
HISB-60 (17'-19')	HT030930-01	3.279	CH-8	NA	NA	present	E
HISB-58 (21'-24')	HT031006-01	3.698	none	NA	NA	none	E
HISB-58 (30'-32')	HT031006-02	2.298	CH-10	NA	NA	none	E
mean		3.09					
S3/S10 C15-sesquiterpane/8 β (H)-homodrimane							
S5/S10 8 β (H)-drimane/8 β (H)-homodrimane							
NA – not available							



Summary of Petrogenic Pattern Categories

- A distillate fuel oil pattern with normal alkanes completely degraded; ratio of pristane to phytane between about 1.62; alkylcyclohexane maximum at CH-10; S3/S10 ratio about 1.02; S5/S10 ratio about 0.76; terpanes and steranes present
- B samples contains mostly TLM; no regular fuel oil pattern; ratio of pristane to phytane between about 1.57; alkylcyclohexane maximum at CH-7 or none at all; S3/S10 ratio about 0.67; S5/S10 ratio about 0.1.02; terpanes and steranes absent
- C distillate fuel oil pattern with normal alkanes completely degraded; ratio of pristane to phytane between about 2.01; alkylcyclohexane maximum at CH-7; S3/S10 ratio about 1.34; S5/S10 ratio about 0.91; terpanes and steranes absent
- D distillate fuel oil pattern with normal alkanes completely degraded; ratio of pristane to phytane between about 1.49; alkylcyclohexane maximum at CH-10; S3/S10 ratio about 0.93; S5/S10 ratio about 1.17; terpanes and steranes absent
- E distillate fuel oil pattern with regular series of normal alkanes; ratio of pristane to phytane about 3.09; variable and relatively narrow alkylcyclohexane distribution; S3/S10 and S5/S10 ratios not available; terpanes and steranes absent or at trace levels; [GC/FID chromatograms suggest a narrow boiling point range petroleum distillate in the kerosene range

- Soil sample HISB-60 (17-19') collected on the western portion of the former Hempstead MGP site contained a fifth pattern characterized by a regular series of normal alkanes that peaked at pentadecane (C15); a pristane/phytane ratio of 3.279; a regular series of alkylcyclohexanes that peaked at octacyclohexane (CH-8), and trace levels of triterpanes and steranes. This pattern was labeled "E". Samples HISB-60 (17-19') HISB-58 (21-24'), and HISB-58 (30-32') exhibited E-character.
- Finally, EICPs, biomarker data, and other GC/MS data were not acquired for NAPL samples HIMW-10S, HIMW-11S, HIMW-01S, and HIMW-06S analyzed early in the project. Of these, samples HIMW-01S and HIMW-06S contained mostly pyrogenic (TLM) material. In contrast, samples HIMW-10S and HIMW-11S mostly petrogenic material. There was insufficient information to determine whether HIMW-10S and HIMW-11S contained Patterns A, C, or D, all of which were distillate fuel oils with similar characteristics.

Estimation of the Amounts of Petrogenic and Pyrogenic Material in Each Sample

The amounts of petrogenic and pyrogenic material in each sample analyzed by META were estimated using a simple ratio method (9). Specifically, chrysene is a major constituent of TLM, comprising 0.1% to 0.6% by weight (8) while distillate fuel oils are reported to contain from less than detectable amounts to 0.0001% of chrysene (6). Conversely, distillate fuel oil contains substantial amounts of weathering resistant compounds, such as pristane and phytane, which are absent or are at very low concentrations in TLM (2). Thus, relationships such as the following can be established:

- 1) $[\text{TLM}]/[\text{chrysene}] = X,$ thus, $[\text{TLM}] = X * [\text{chrysene}]$
- 2) $[\text{oil}]/[\text{pristane}] = Y,$ thus, $[\text{oil}] = Y * [\text{pristane}]$
- 3) $[\text{total}] = [\text{TLM}] + [\text{oil}]$ (mass balance check)

To apply the above formulas to a specific site, the concentrations of total hydrocarbons, of pristane, and of chrysene are needed for each sample. Also, one or more samples must be specified as representative of each of the two types of substance (oil and TLM). The conversion factors X and Y can then be calculated from the specified reference samples.

For the former Hempstead MGP site, the concentrations of total hydrocarbons was determined by integration of the full GC/FID chromatogram for each sample and calculated verses the response factor of the internal standard, 5- α -androstane. Sample HIMW-06S was assumed to be representative of the TLM at the site; sample HISB-112 (25-30') was assumed to be representative of the distillate fuel oil at the site. The ratio of TLM/chrysene (factor X) for sample HIMW-06S was 157; the ratio of oil/pristane (factor Y) for sample HISB-112 (25-30') was 101.

Various conditions of the data make the TLM factor, X, and the oil factor, Y, somewhat uncertain. For example, as discussed in the previous section, the composition of the petrogenic component of each sample is not the same; however, the use of equations 1) and 2) assume that

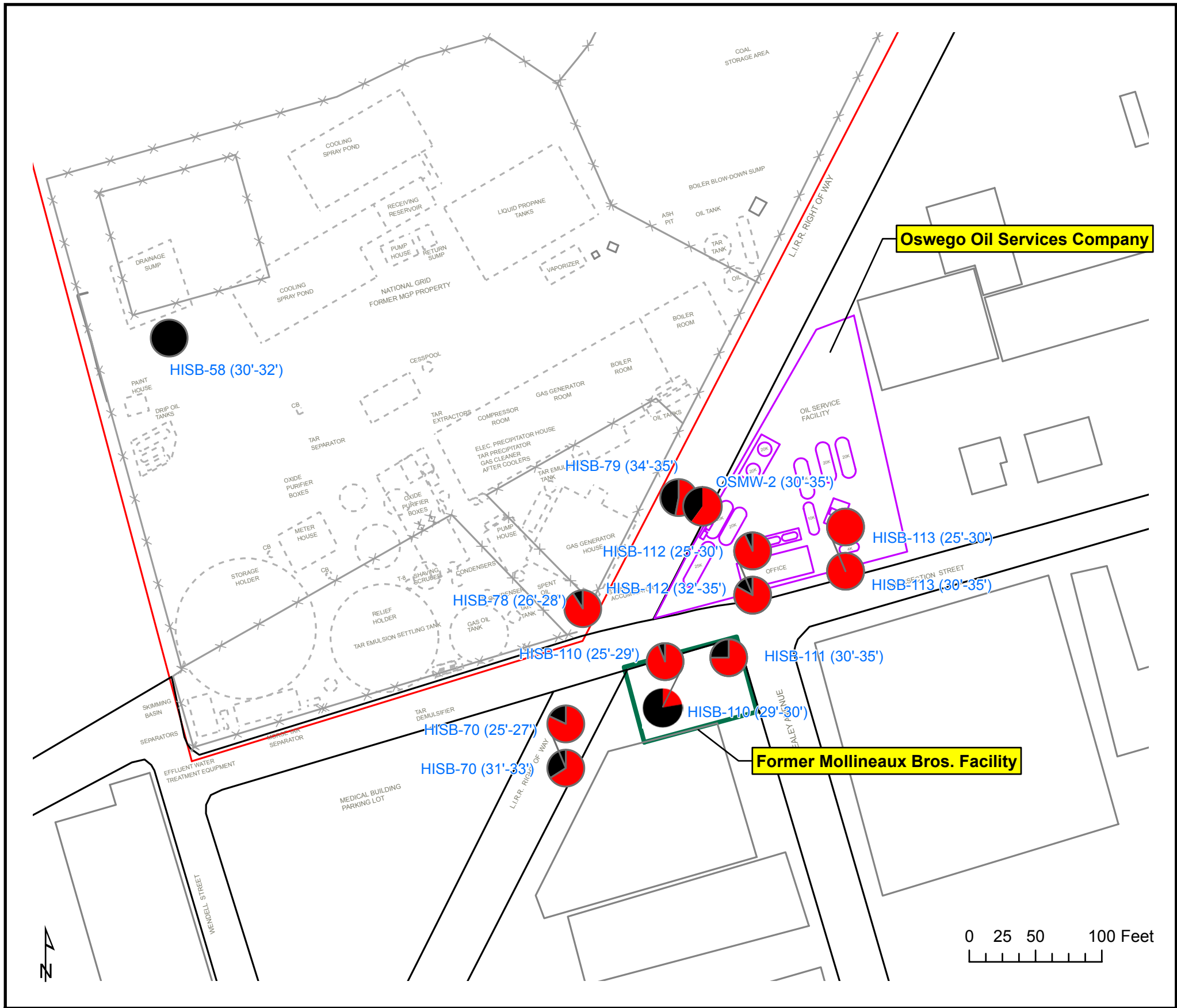
they are. Also, environmental degradation over time changes the relative amount of total hydrocarbons to either the pristane or chrysene concentrations; thus application of a factor derived from one sample may not be entirely representative to another sample whose environmental weathering state is different. Because of these sources of variability, the calculated percentages should be considered estimates.

Using the factors X and Y, the fraction of each type of material, i.e., TLM or distillate fuel oil, in each sample was calculated using equations 1) and 2) above and dividing each result by the total hydrocarbon concentration for that sample. Because of the variability caused by degradation and mixing, the sum of the percent TLM and percent oil deviated from 100% for many samples. To correct for this, the percentages were normalized to 100% by dividing each of the percentages in each sample by the sum of the percentages in that sample.

Finally, the GC/FID fingerprints of each sample were reviewed once again, and for the samples that showed mostly or only tar-like character, the percent TLM was manually adjusted to 100% and the percent oil adjusted to 0%. This group of samples included HIMW-01S, HIMW-06S, HISB-58 (30'-32'), and DGP-71, all collected on the former MGP site. Similarly, for those samples that showed trace or no tar-like character, the percent oil was adjusted to 100% and the percent TLM adjusted to 0%. This group included HIMW-10S, HISB-113/25-30, and HISB-113/30-35. For all other samples, the GC/FID fingerprints and other chemical data confirmed that the samples were mixtures. Table 6 shows the values for each sample.

The percent of distillate fuel oil in samples found to be mixtures ranged from 22.6 to 95.5%; the average percent of distillate fuel oil in samples found to be mixtures was 79.5%. Conversely, the percent of TLM ranged from 4.5 to 77.4% with an average percent TLM of 20.5%.

Figure 5 shows the %TLM and %distillate fuel oil in soil and NAPL samples collected from depths greater than 25 feet bgs. Similarly, Figure 6 shows the %TLM and %distillate fuel oil in soil and NAPL samples collected from depths less than 25 feet bgs. Twenty-five feet was used as a dividing point somewhat arbitrarily, but generally because it is the approximate depth to the water table in the general vicinity of the borings and wells.



Distillate Fuel Oil



Tar Like Material

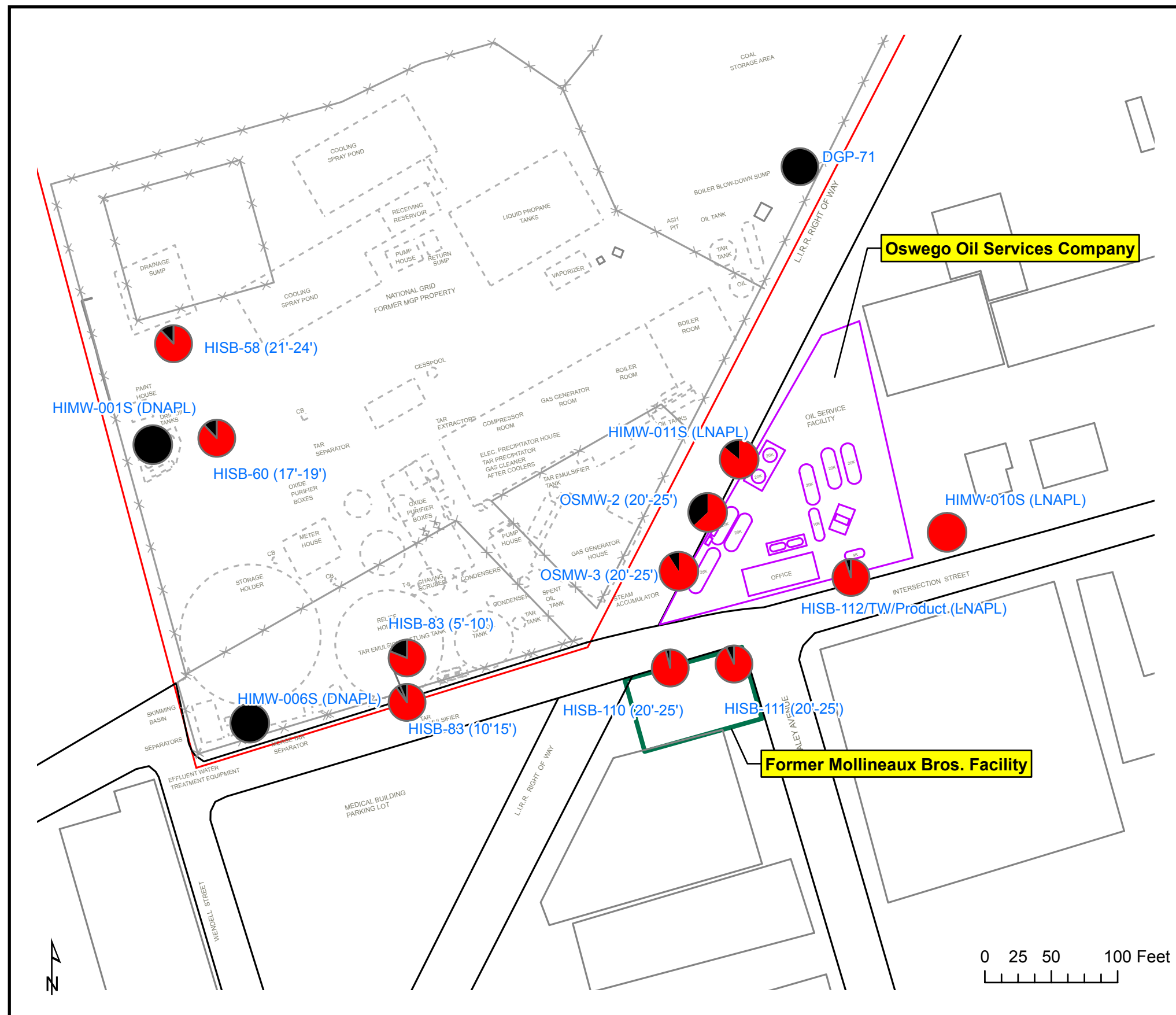


Pie slices indicate the percent of each substance in the sample.
See Table 6 for actual percentages.

Figure 5
Quantitative Identification of
Hydrocarbon Types - Samples > 25' Depth
Hempstead Former MGP Site

File Name: Fig 5 Hempstead Former MGP Site - Deep
Date: 4/14/09
Prepared by: JO
Client: URS Corporation

Notes:
1 Basemap site survey data provided by Keyspan Energy Survey Division and URS Corporation.
2 Source: Approximate locations of MGP structures based on: 1927 General Plan (File F-3706, DWG. 16863-1); 1952 site plan by the New York Fire Insurance Rating Organization; and Sanborn Fire Insurance maps.



Distillate Fuel Oil



Tar Like Material



Pie slices indicate the percent of each substance in the sample.
See Table 6 for actual percentages.

Figure 6
Quantitative Identification of
Hydrocarbon Types - Samples < 25' Depth
Hempstead Former MGP Site

File Name:
Fig 6 Hempstead Former MGP Site - Shallow
Date: 4/14/09
Prepared by: JO
Client: URS Corporation

Notes:
1 Basemap site survey data provided by Keyspan Energy Survey Division and URS Corporation.
2 Source: Approximate locations of MGP structures based on: 1927 General Plan (File F-3706, DWG. 16863-1); 1952 site plan by the New York Fire Insurance Rating Organization; and Sanborn Fire Insurance maps.

Table 6. Estimated Percent of TLM and Distillate Fuel Oil in Each Sample

Field ID:	% Distillate Fuel Oil	%TLM
HIMW -10S	100.0%	0.0%
HIMW-11S	86.1%	13.9%
HIMW-01S	0.0%	100.0%
HIMW-06S	0.0%	100.0%
HISB-60 (17'-19')	88.1%	11.9%
HISB-58 (21'-24')	88.5%	11.5%
HISB-58 (30'-32')	0.0%	100.0%
HISB-70 (25'-27')	81.8%	18.2%
HISB-70(31'-33')	66.0%	34.0%
HISB-78 (26'-28')	91.0%	9.0%
HISB-79 (34'-35')	53.1%	46.9%
DGP-71	0.0%	100.0%
HISB-83 (5'-10')	81.2%	18.8%
HISB-83 (10'-15')	90.2%	9.8%
OSMW-2 (20'-25')	62.8%	37.2%
OSMW-2 (30'-35')	60.2%	39.8%
OSMW-3 (20'-25')	91.4%	8.6%
HISB - 110/20-25	95.5%	4.5%
HISB - 110/25-29	93.8%	6.2%
HISB - 110/29-30	22.6%	77.4%
HISB-111/20-25	92.6%	7.4%
HISB-111/30-35	75.2%	24.8%
HISB-112/25-30	93.2%	6.8%
HISB-112/32-35	82.8%	17.2%
HISB-113/25-30	100.0%	0.0%
HISB-113/30-35	100.0%	0.0%
HISB-112/TW/Product	94.6%	5.4%

Variations with depth

The nature of the hydrocarbons at several locations seemed to follow a pattern of petrogenic at shallow depths with increasing pyrogenic character at greater depths. This is not unexpected at sites with both oil and tar releases because most oils are light non-aqueous phase liquids (LNAPLs) and can accumulate at the water table, while tars are dense non-aqueous phase liquids (DNAPLs) and can migrate down through the aquifer eventually accumulating at a confining layer.

Soil samples collected at HISB-40 illustrate the chemical variations with depth (Table 3, Appendix A). Specifically, sample HISB-40 (18'-20') contained severely weathered distillate fuel oil. Sample HISB-40 (26'-28') contained a similar weathered fuel oil, but with notable amounts of pyrogenic PAHs including naphthalene and phenanthrene. Finally, sample HISB-40 (32'-34') contained mostly pyrogenic PAHs in an MGP tar-like pattern, with little or no petrogenic component.

This pattern was observed at other locations including HISB-110 and HISB-111.

Potential sources of chemicals in geoprobe borings south of Oswego Oil

Consultants for Oswego Oil (Kost Environmental Services, Inc.) collected nine groundwater samples from direct push sampling points, plus two samples of NAPL from MW-2 and MW-5 on the Oswego Oil site; in addition, a virgin No. 2 fuel oil sample was collected and analyzed. A copy of the Kost report is provided in Appendix G. Volatile organic compounds, including benzene, toluene, ethylbenzene, xylenes (monocyclic aromatic hydrocarbons - MAHs) were detected at several locations. Similarly, semivolatile organic compounds, primarily low molecular weight PAHs, were detected at several locations. Finally, methyl-t-butyl ether (MTBE) was detected at seven of the nine locations.

MTBE is a synthetic chemical added to gasoline since the early 1980s. It is not a constituent of distillate fuel oils, heavy fuel oils or tar-like materials. Therefore, seven of the nine groundwater samples collected by Kost contained gasoline-derived chemicals.

Gasoline contains MAHs and low molecular weight PAHs and is a likely source of those compounds in groundwater downgradient of Oswego Oil. Distillate fuel oil and TLM also contain MAHs and PAHs and have impacted downgradient groundwater where those materials were found in the soil.

Summary

A review of the soil and groundwater hydrocarbon data from the former Hempstead MGP site and the Oswego Oil property in Hempstead New York shows that the Oswego Oil property is impacted by fresh and weathered distillate fuel oil consistent with the products handled at the Oswego site. In addition, the site is impacted by gasoline. Samples from the western portion of the Oswego Oil site in the former LIRR right-of-way contained a mixture of fuel oil and TLM. These substances may be contributing MAHs and PAHs to a groundwater plume that exists just to the south of the Oswego Oil property. Groundwater south of the Oswego Oil property also contains MTBE indicating impacts from gasoline. Since benzene, toluene, xylenes, and other compounds are substantial constituents in gasoline, it is likely that gasoline also is a source of those compounds in the groundwater.

Based on the known and suspected use of petroleum products at the former MGP and at Oswego Oil, and based on the distribution of petrogenic materials shown on Figure 5 and Figure 6, it appears that impacts by distillate fuel oil are limited to the vicinity of Oswego Oil and likely originated there. The fresh distillate fuel oil could not have originated from the former MGP, which hasn't operated in many years. Oswego Oil stores and handles distillate fuel oils and has a documented history of oil releases. Similarly, it appears that gasoline was released at the Oswego Oil site, which was reportedly stored and handled at their facility. Further, no gasoline-like chemicals were identified in any samples from the former MGP.

Finally, tar-like material and severely weathered distillate fuel oil or blended fuel oil was observed at several locations on the former MGP site and within the former railroad right of way to the west of the Oswego Oil property.

Qualifications

The interpretation and conclusions presented in this report are limited by the amount and nature of the available data.

Table 7. Selected Source and Weathering Ratios

Field ID	Lab ID	FI/Py	D/F	C17/Pri	C18/Phy	Pri/Phy	C3D/C3PA	C2D/C2PA	BF/MP	BeP/BaP
HISB-112 / TW / Product	HC081107-03	0.596	0.246			1.987	0.629	0.394	0.289	0.485
Duplicate of HISB-112 / TW / Product	HC081107-03DUP	0.598	0.250			2.030	0.626	0.398	0.291	0.490
HISB - 110/20-25	HC081104-02	0.647	0.187			1.616	0.714	0.490	0.323	0.529
Duplicate of HISB - 110/20-25	HC081104-02DUP	0.646	0.190			1.602	0.729	0.490	0.323	0.531
HISB - 110/25-29	HC081104-03	0.687	0.177			1.642	0.676	0.443	0.372	0.505
HISB - 110/29-30	HC081104-04	0.732	0.134	0.271	0.404	1.722	0.310	0.175	0.434	0.461
HISB - 111/20-25	HC081104-05	0.662	0.172			1.651	0.674	0.435	0.343	0.496
HISB - 111/30-35	HC081104-06	0.652	0.148	0.671		2.072	0.616	0.374	0.359	0.478
HISB - 112/25-30	HC081104-07	0.586	0.243			1.961	0.658	0.410	0.291	0.500
HISB - 112/32-35	HC081104-08	0.629	0.174			2.102	0.600	0.377	0.327	0.487
HISB - 113/25-30	HC081104-09	0.183	0.382			1.931	0.508	0.334	0.093	1.000
HISB - 113/30-35	HC081104-10	0.211	0.421			2.080	0.496	0.339	0.105	0.727
DGP-71	HC071228-01	0.604	0.102	2.023	2.324	1.477	0.607	0.377	0.293	0.499
DGP-71 dup	HC071228-01DUP	0.606	0.102	2.019	2.373	1.525	0.615	0.374	0.295	0.500
HISB-83 (10'-15')	HC080118-02	0.637	0.141			1.578	0.468	0.342	0.347	0.641
HISB-83 (10'-15') dup	HC080118-02DUP	0.630	0.142			1.576	0.478	0.341	0.338	0.636
OSMW-2 (20-25')	HC080209-01	0.638	0.121			1.498	0.512	0.328	0.354	0.485
OSMW-2 (20-25') dup	HC080209-01DUP	0.638	0.119			1.484	0.524	0.323	0.349	0.484
OSMW-2 (30-35')	HC080209-02	0.634	0.154	0.204	0.256	1.947	0.515	0.339	0.319	0.488
OSMW-3 (20-25')	HC080209-03	0.607	0.141			1.425	0.617	0.437	0.312	0.519
HISB-83 (5'-10')	HC080118-01	0.474	0.111			1.575	0.558	0.383	0.216	0.677
HISB-78 (26'-28')	HT040308-01	0.670	0.187	0.028	0.070	1.860	0.665	0.420	0.647	0.567
HISB-79 (34'-35')	HT040308-02	0.641	0.138	0.039	0.110	2.196	0.606	0.359	0.664	0.522
HISB-70 (25'-27')	HT030913-01	0.637	0.140	0.021	0.048	1.639	0.710	0.384	0.333	0.543
HISB-70 (31'-33')	HT030913-02	0.700	0.116	0.023	0.046	1.751	0.547	0.308	0.383	0.526
HISB-60 (17'-19')	HT030930-01	0.526	0.245	1.526	2.285	3.279	0.759	0.320	0.152	0.871
HISB-58 (21'-24')	HT031006-01	0.520	0.237	2.551	3.199	3.698	1.098	0.283	0.204	0.626
HISB-58 (30'-32')	HT031006-02	0.512	0.224	1.971	2.496	2.298	0.649	0.229	0.233	0.544

Ratios:

FI/Py	fluoranthene/pyrene	BF/MP	benzofluorenes/methylpyrene
D/F	dibenzofuran/fluorene	BeP/BaP	benzo(e)pyrene/benzo(a)pyrene
C17/Pri	heptadecane/pristane		
C18/Ph	octadecane/phytane		
Pri/Phy	pristane/phytane		
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes		
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes		



Scatter plot showing the ratio of benzofluorenes/methylpyrenes (Y-axis) versus fluoranthene/pyrene (X-axis). The plot compares three sample types: Petroleum reference samples from META's archive (red diamonds), Field Samples (blue circles), and Tars and tar-like materials from META's archive (green squares). The plot includes a legend and several labeled regions: Petroleum Products, Coal Tars, and CWG tars. Specific data points are labeled with HSB numbers and ranges.

Legend:

- Petroleum reference samples from META's archive (Red Diamond)
- Field Samples (Blue Circle)
- Tars and tar-like materials from META's archive (Green Square)

Regions and Labels:

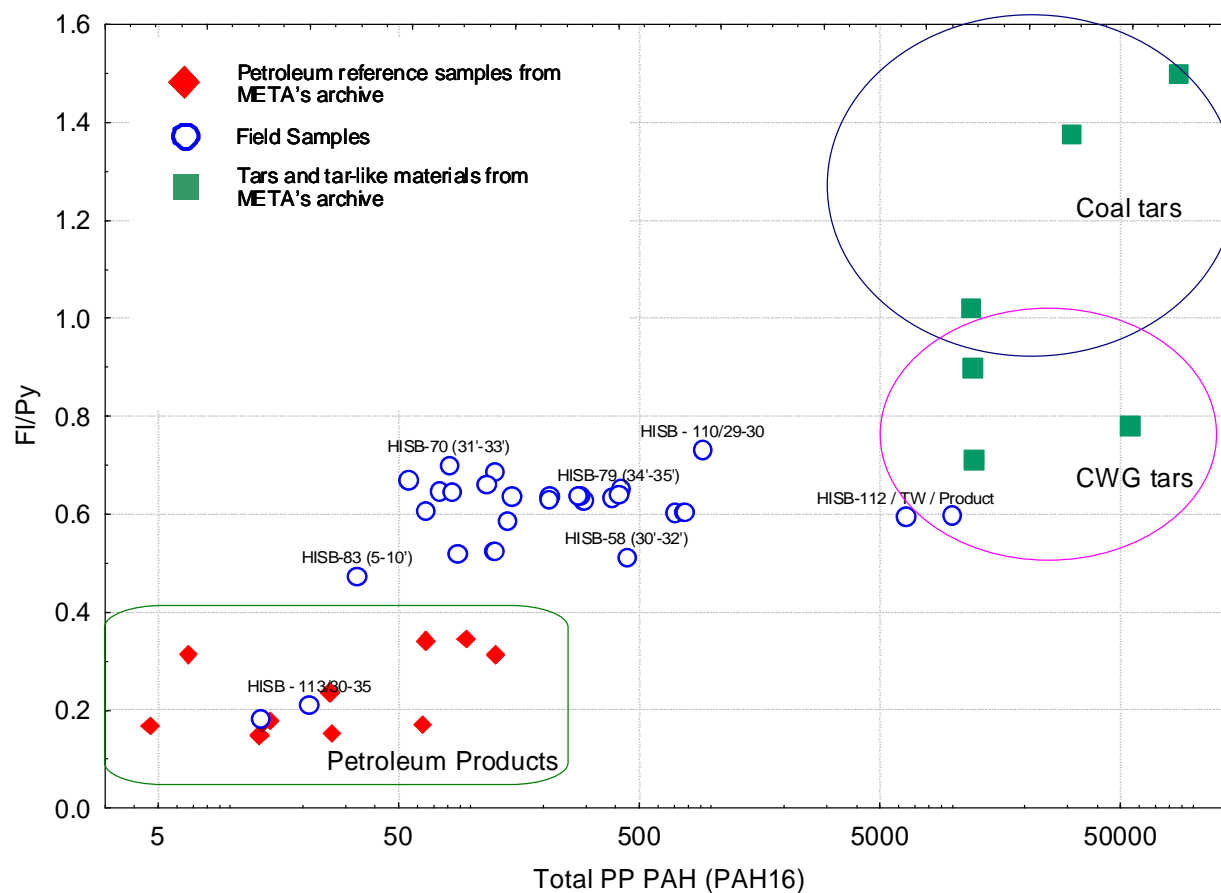
- Petroleum Products:** A red rounded rectangle enclosing the bottom-left cluster of petroleum reference samples.
- Coal Tars:** A black rectangle enclosing the top-right cluster of tar-like materials.
- CWG tars:** A red oval enclosing a cluster of field samples and tar-like materials.

Specific Data Points (Approximate Coordinates):

Sample Type	Fluoranthene/pyrene (X)	Benzofluorenes/methylpyrenes (Y)	Label
Petroleum reference	0.15	0.10	HSB - 113/30-35
Petroleum reference	0.25	0.15	
Petroleum reference	0.30	0.25	
Petroleum reference	0.35	0.18	
Petroleum reference	0.35	0.15	
Field Samples	0.45	0.25	HSB-83 (5)
Field Samples	0.50	0.20	
Field Samples	0.55	0.25	HSB-112 / T-10 (30'-32')
Field Samples	0.60	0.30	
Field Samples	0.65	0.65	HSB-79 (34'-35')
Field Samples	0.68	0.35	
Field Samples	0.70	0.40	
Field Samples	0.75	0.45	
Field Samples	0.80	0.40	HSB - 110/29-30
Field Samples	0.85	0.38	HSB-70 (31'-33')
Tars and tar-like materials	0.75	0.32	
Tars and tar-like materials	0.80	0.52	
Tars and tar-like materials	0.90	0.48	
Tars and tar-like materials	1.02	0.60	
Tars and tar-like materials	1.38	1.15	
Tars and tar-like materials	1.50	1.78	

Selected data points are labeled for reference

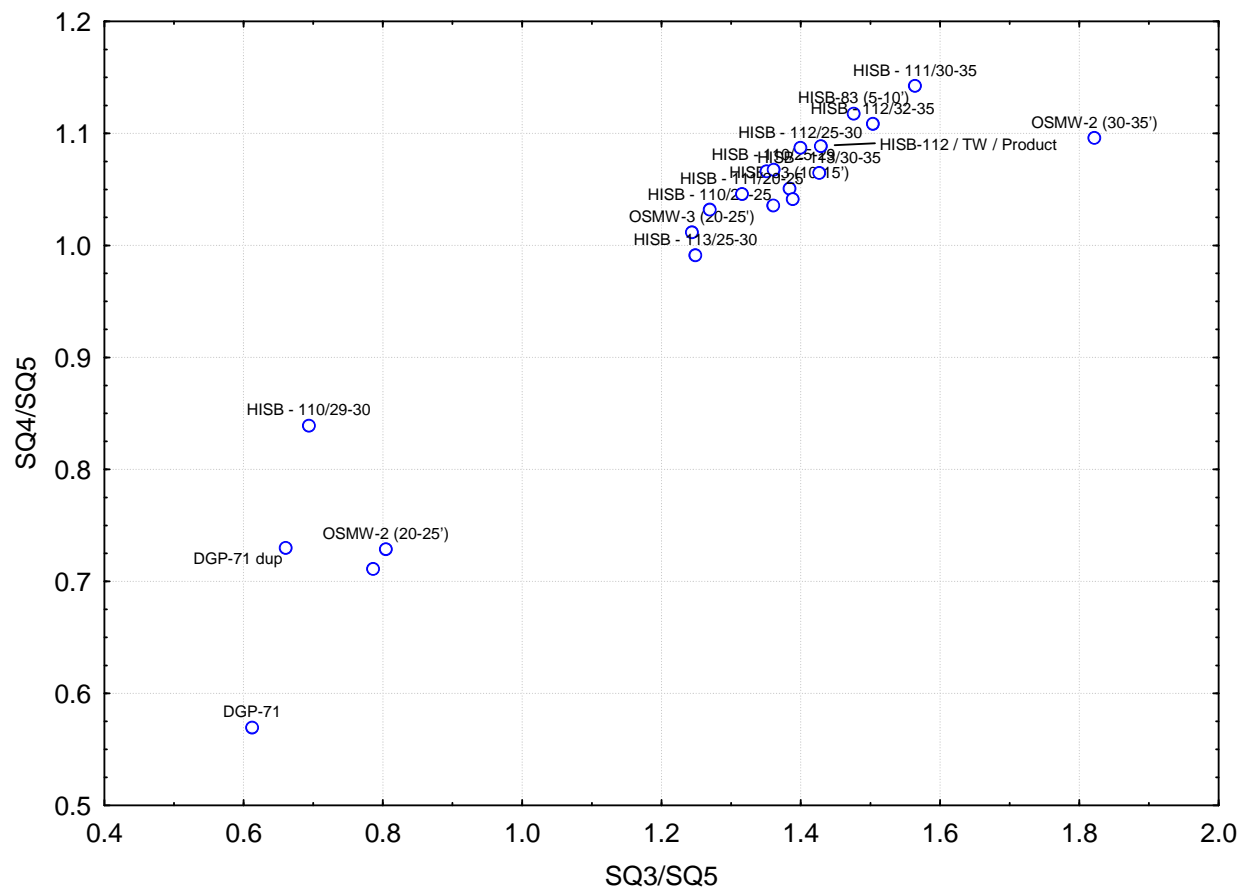
Figure 8. Selected Diagnostic Ratios: fluoranthene/pyrene verses Total PAHs



CWG – carbureted water gas

selected data points are labeled for reference

Figure 9. Selected Diagnostic Ratios – Sesquiterpanes



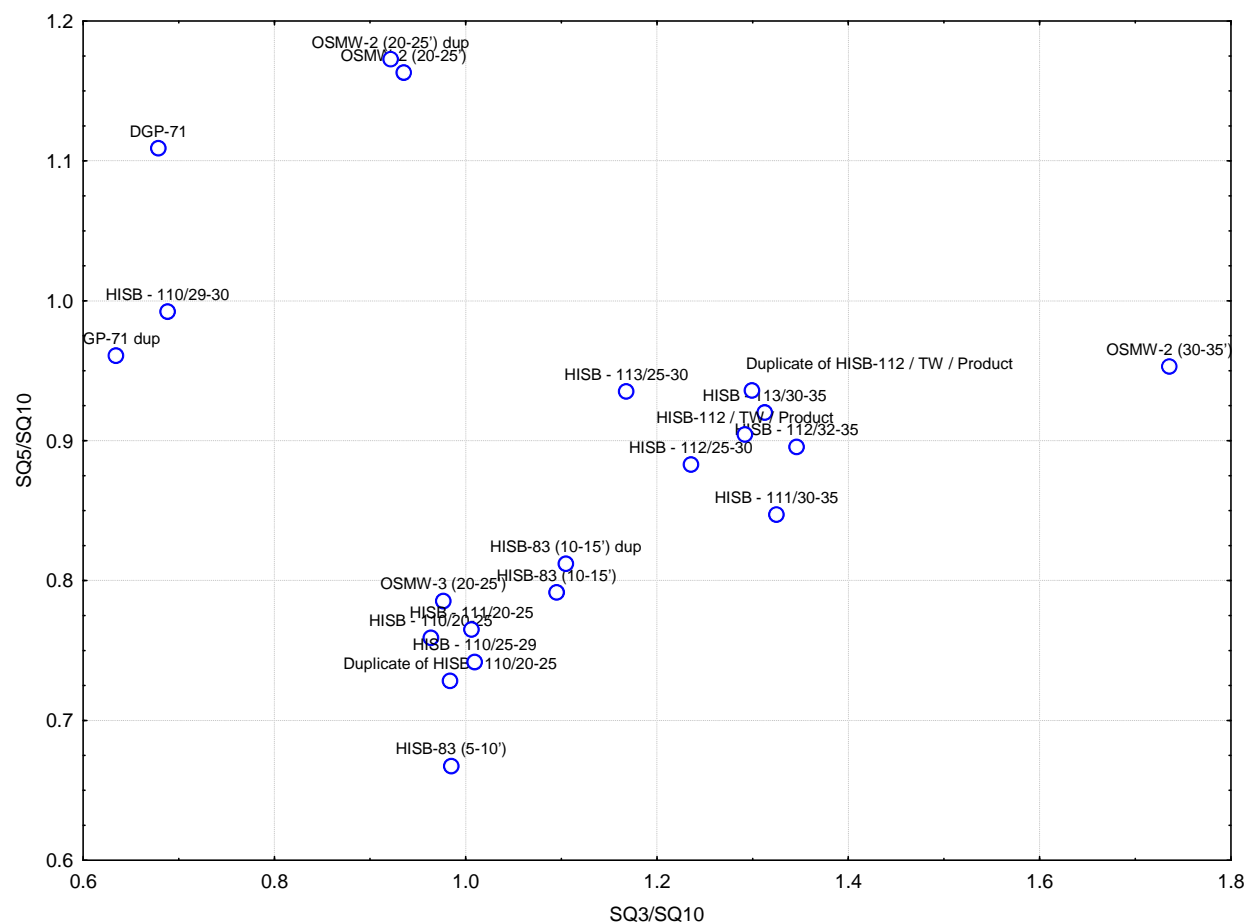
SQ3 - isomer of C15-decahydronaphthalene

SQ4 - isomer of C15-decahydronaphthalene

SQ5 - isomer of C15-decahydronaphthalene

(laboratory duplicate sample results are not labeled)

Figure 10. Double Ratio Plot: Selected Sesquiterpane Biomarkers

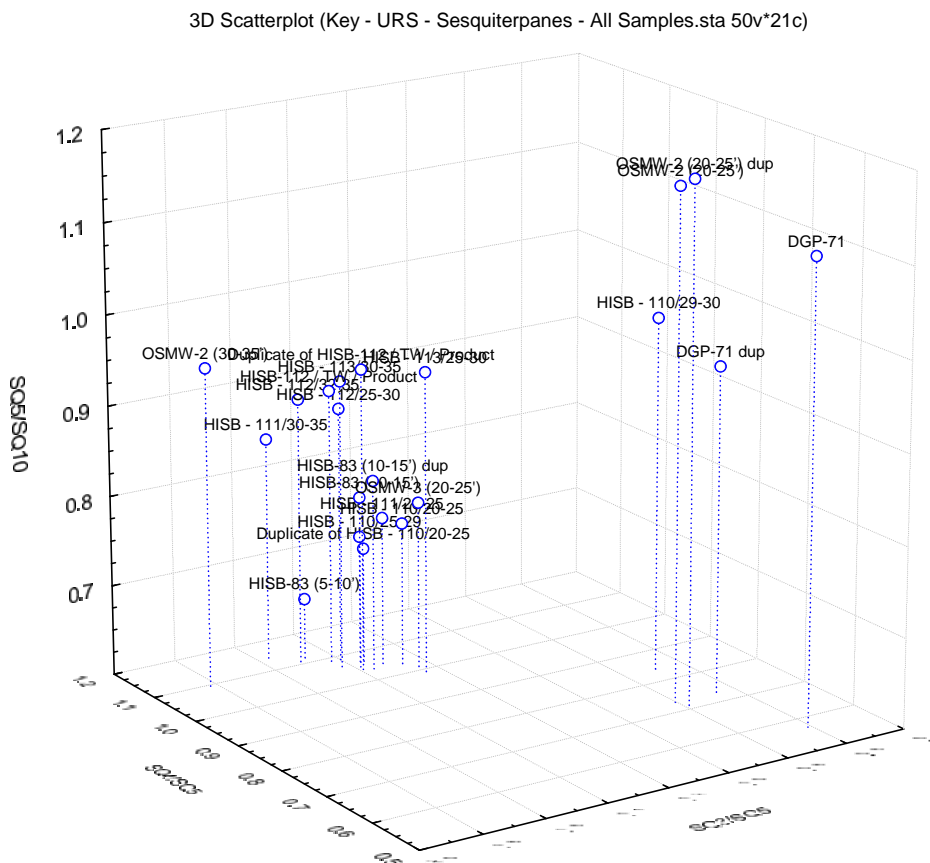


SQ3 - isomer of C15-decahydronaphthalene

SQ5 - isomer of C15-decahydronaphthalene

SQ10 - isomer or C16-decahydronaphthalene

Figure 11. Triple Ratio Plot – Selected Sesquiterpane Biomarker Compounds



Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

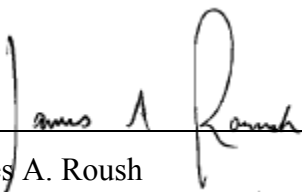
Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

Laboratory Quality Assurance for SGDs HC081104 and HC081107

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. The results included in this data report relate only to the samples as received and analyzed by the laboratory.


Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager and Quality Assurance Officer, as verified by the following signatures.



James A. Roush
Environmental Scientist, Laboratory Manager

January 29, 2009

Date



David M. Mauro
Senior Scientist, Quality Assurance Officer

January 29, 2009

Date

Sample Delivery Group Narrative

Project: Hempstead MGP

Client: URS Corp
77 Goodell Street
Buffalo, New York 14203

Report Contact: James Stachowski

Dates of Receipt: November 4th and 7th of 2008

Sample Summary: The samples received for this project are summarized in the attached sample login forms.

META Project Number: U03012

SDG No.: HC081104, HC081107

Chain of Custody

The samples were received in good condition. The internal temperature of one of the shipping containers was below the recommended 2-6°C range and was as follows:

Samples received: 11/04/08	0°C	Ice present
11/07/08	4.2°C	Ice present

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page. The disposal of samples and extracts will be authorized one month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The non-aqueous phase liquid (NAPL) sample was prepared by solvent dilution (EPA 3580). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds.

Results

Sample results are presented in several appendices which follow this narrative.

Appendix C: GC/FID Fingerprints

Appendix D: MAH/PAH Concentrations

Appendix E: Extended MAH/PAH Profiles - Histograms

Appendix F: Extracted Ion Current Profiles (EICPs)

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." Undetected analytes were reported as null and flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The soil and NAPL samples were extracted within holding times. The samples and extracts were stored at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to extraction and analysis. The extracts were analyzed within 40 days of sample preparation.

Surrogate Spikes

Extraction surrogates were added to all samples prior to extraction. All surrogate compounds were recovered within the 50%-120% acceptable criterion.

Blanks

Various MAHs and PAHs were detected below or just above the reporting limit (RL) in soil blank QC080212-SB. As these compounds were generally detected in the field samples at much higher relative concentrations (greater than 5x the blank levels) positive bias does not appear to be significant.

Blank Spikes

A blank spike sample was extracted with each soil batch. All spiked compounds were recovered within the 70% - 120% acceptable criterion, except for naphthalene in QC081105-SBS which was over-recovered at 138%.

Duplicates

Sample 0802315-001D was extracted and analyzed in duplicate. Relative percent differences are reported with the sample results in Appendix C.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards.

References

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Appendix A

Copies of Chromatograms

Generated by META and Others

Blank

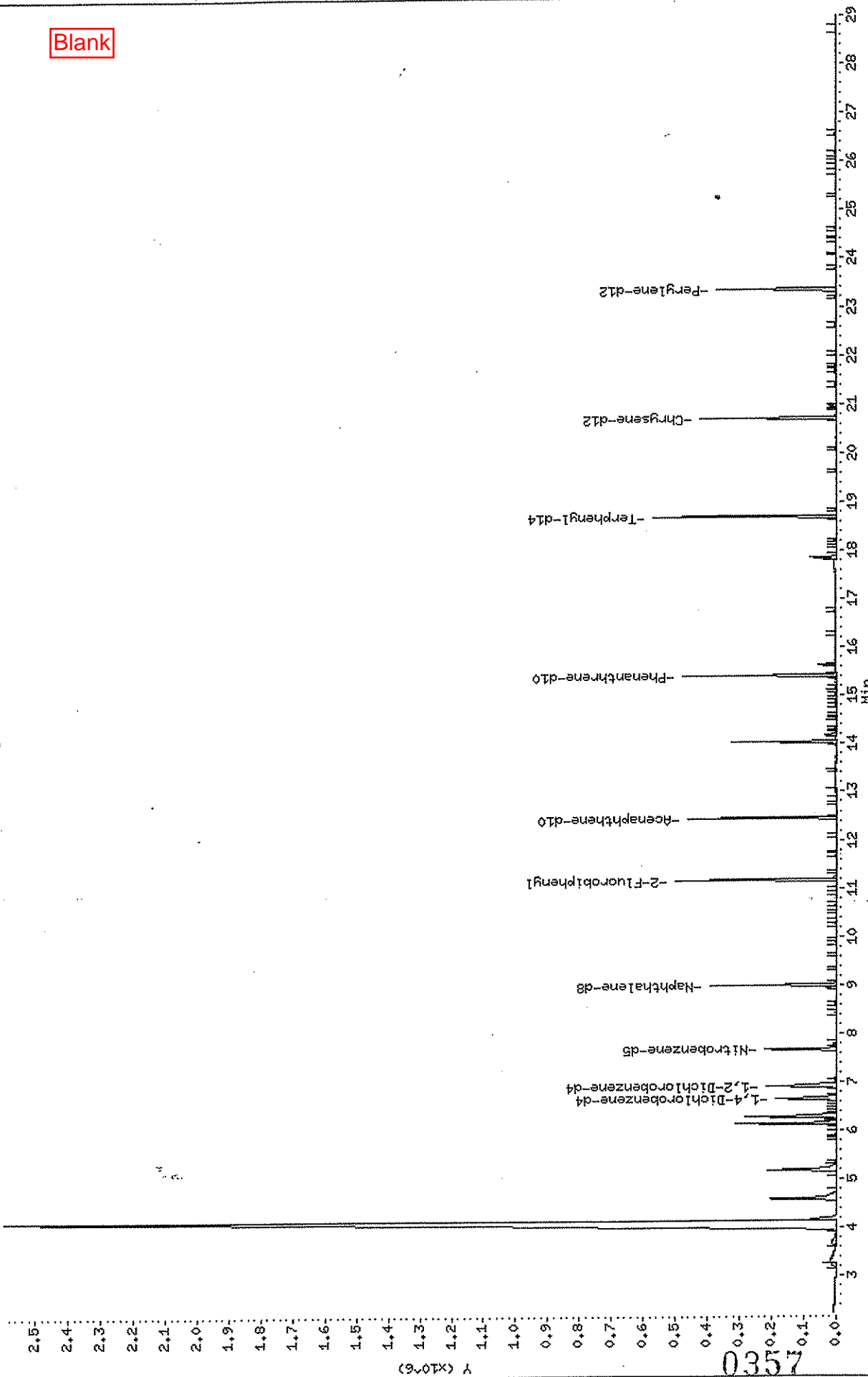
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 Date : 14-AUG-2000 21:13
 Client ID: SB4068
 Sample Info: 71218008,SB4068,S0808-B55,QY,,71218
 Volume Injected (uL): 1.0
 Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

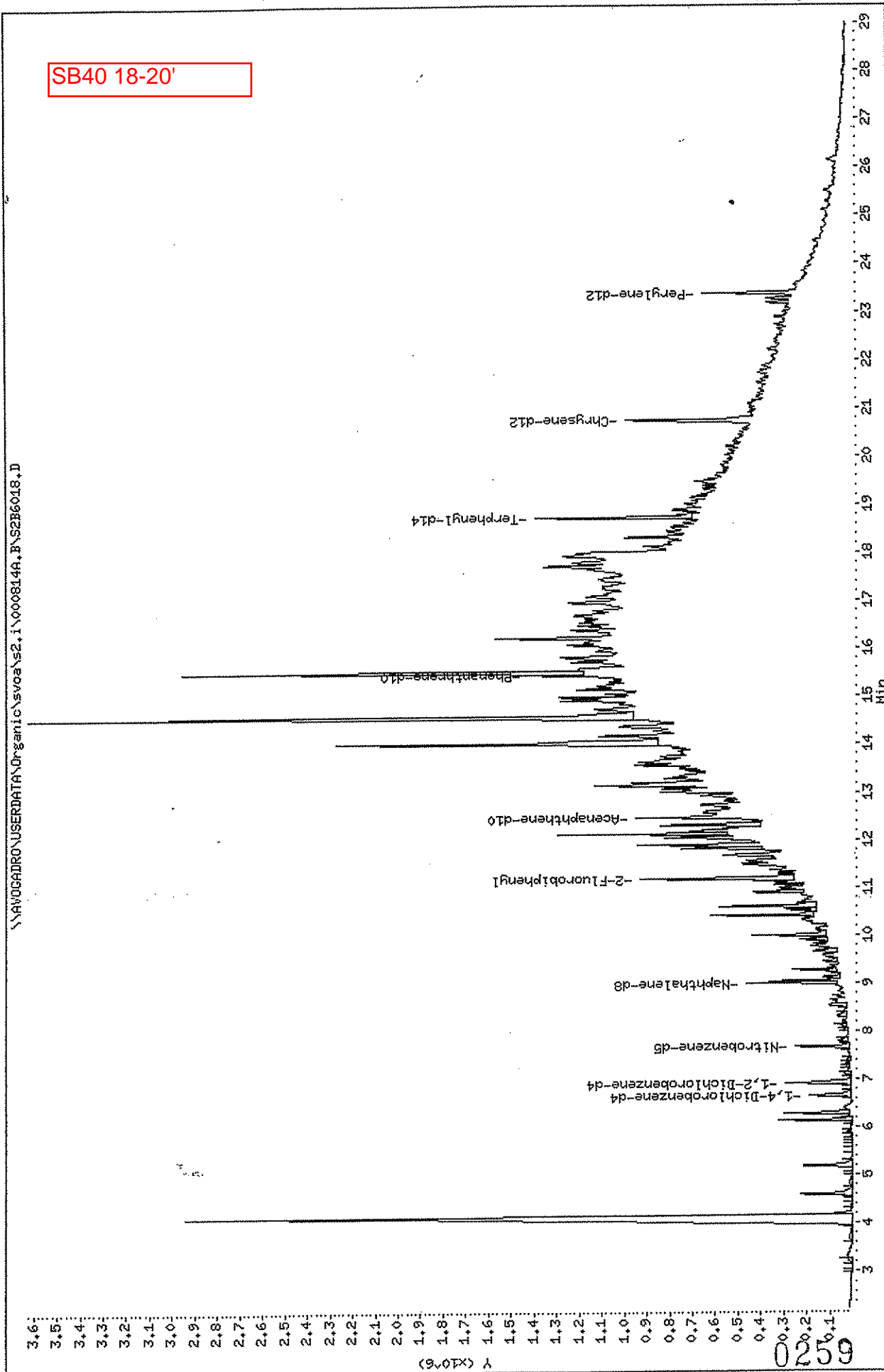
\\AVOCADRO\USERDATA\Organic\svoa\s2.i\000814A.F\52B6006.D



0357

Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000814A.B\S2B6018.D
 Date : 15-AUG-2000 04:34
 Client ID: SB401820
 Sample Info: 71218009,SB401820,S0808-BS5.QY,,71218
 Volume Injected (uL): 1.0
 Column phase: DB-5MS

Instrument: S2.i
 Operator: QY
 Column diameter: 0.25



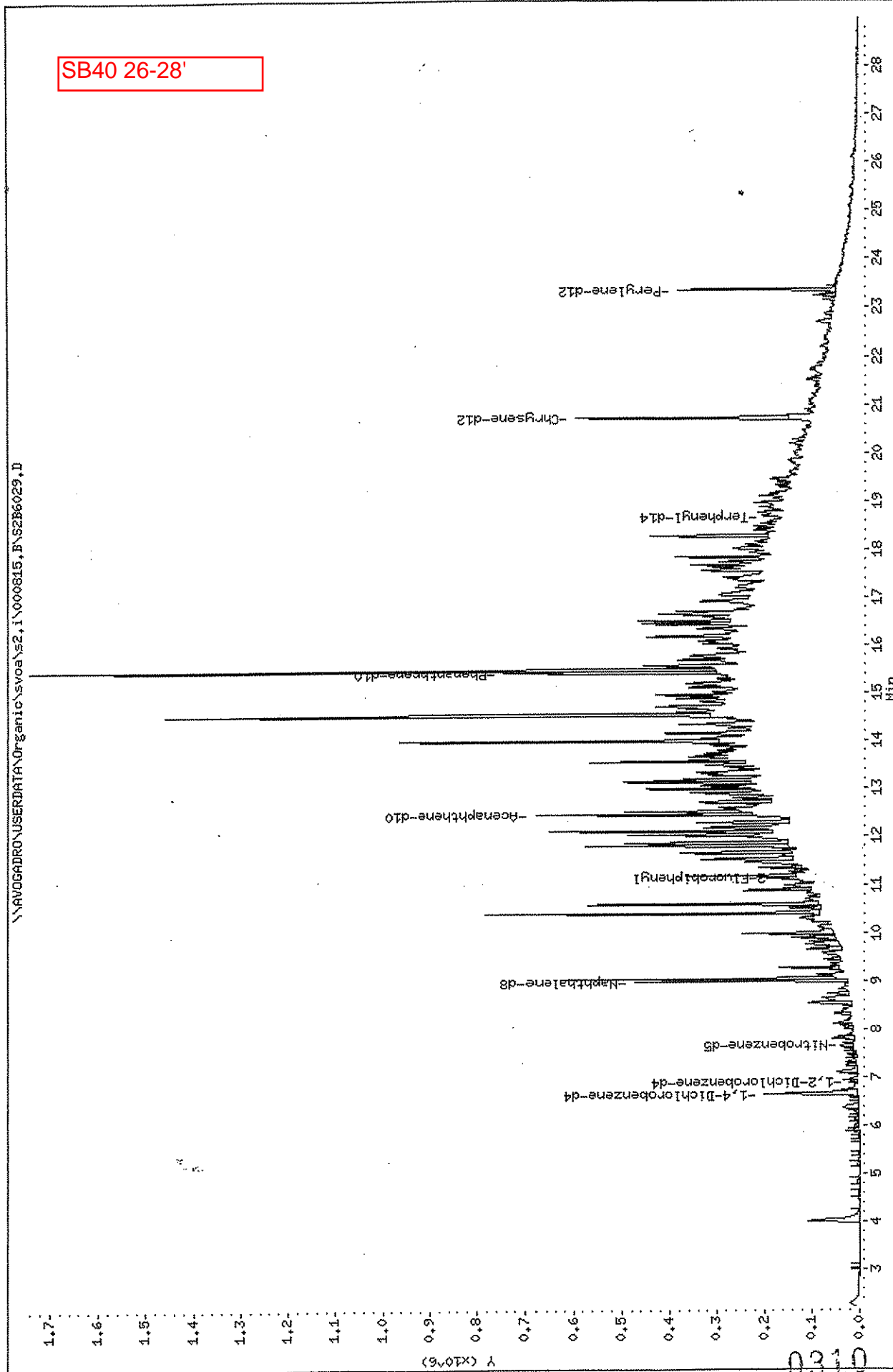
Data File: \\AVOGADRO\USERDATA\Organic\svoc\s2.i\000815.B\S2B6029.D
Date: 15-AUG-2000 12:43
Client ID: SB402628DL
Sample Info: 71218010DL, SB402628DL, S0808-B55, QY, 25, 71218
Volume Injected (ul): 1.0
Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

\\AVOGADRO\USERDATA\Organic\svoc\s2.i\000815.B\S2B6029.D



Data File: \\AVOGADRO\USERDATA\Organic\svoa\s2.i\000815.B\S2B6030.D

Date : 15-AUG-2000 13:20

Client ID: SB403234

Sample Info: 74218011.SB403234.S0808-BS5.QY.25.74218

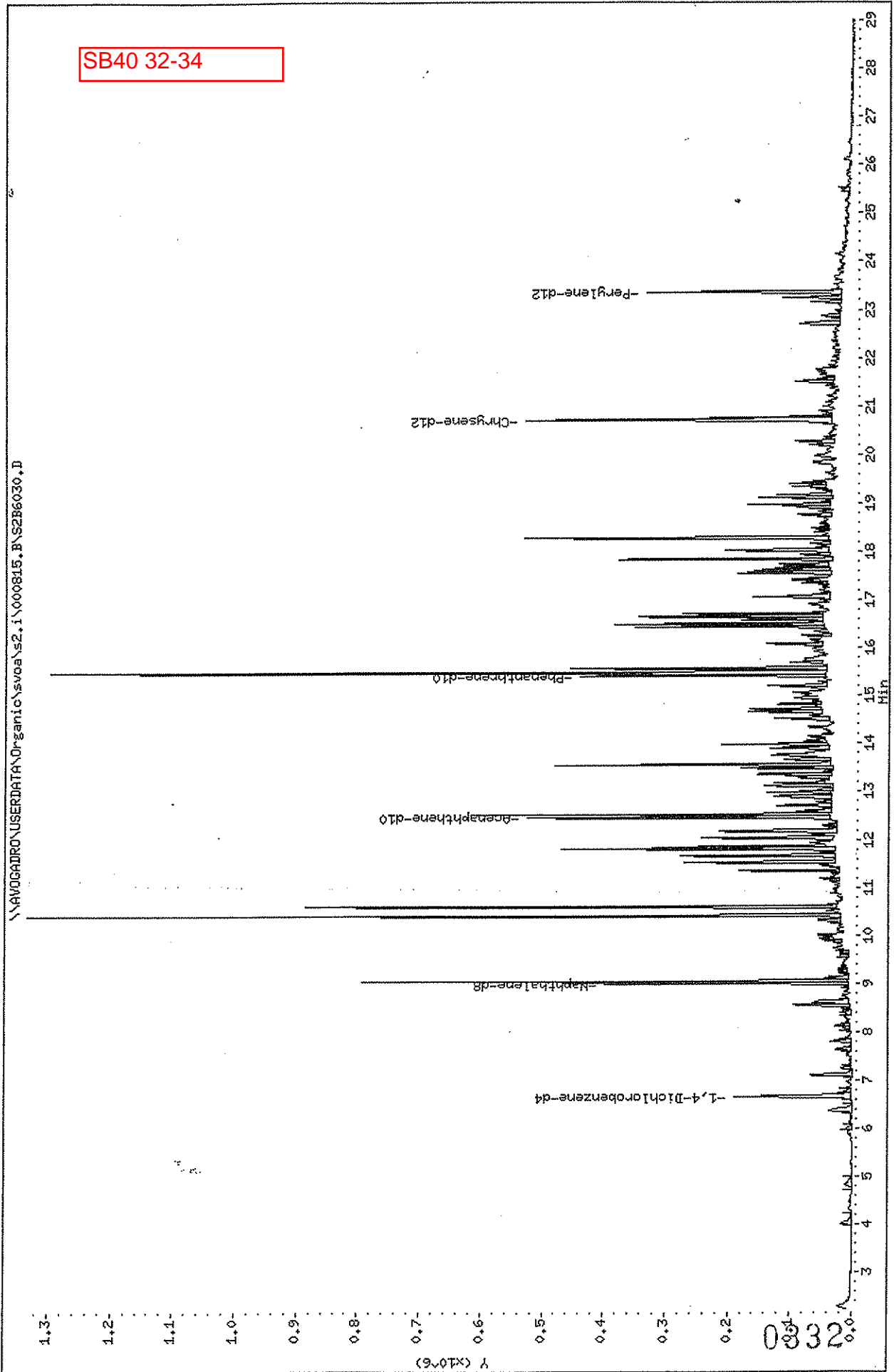
Volume Injected (ul): 1.0

Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

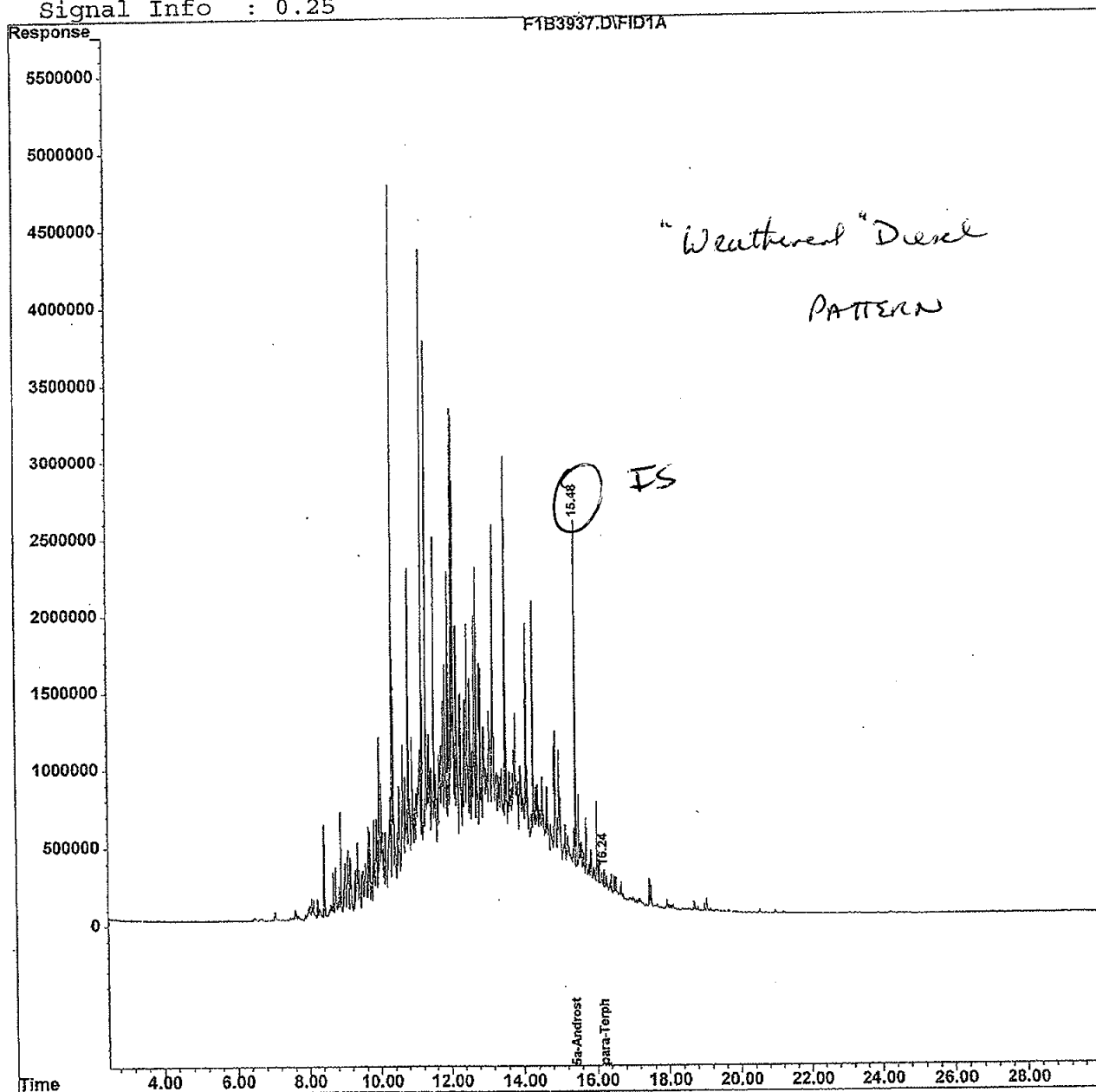


Quantitation Report

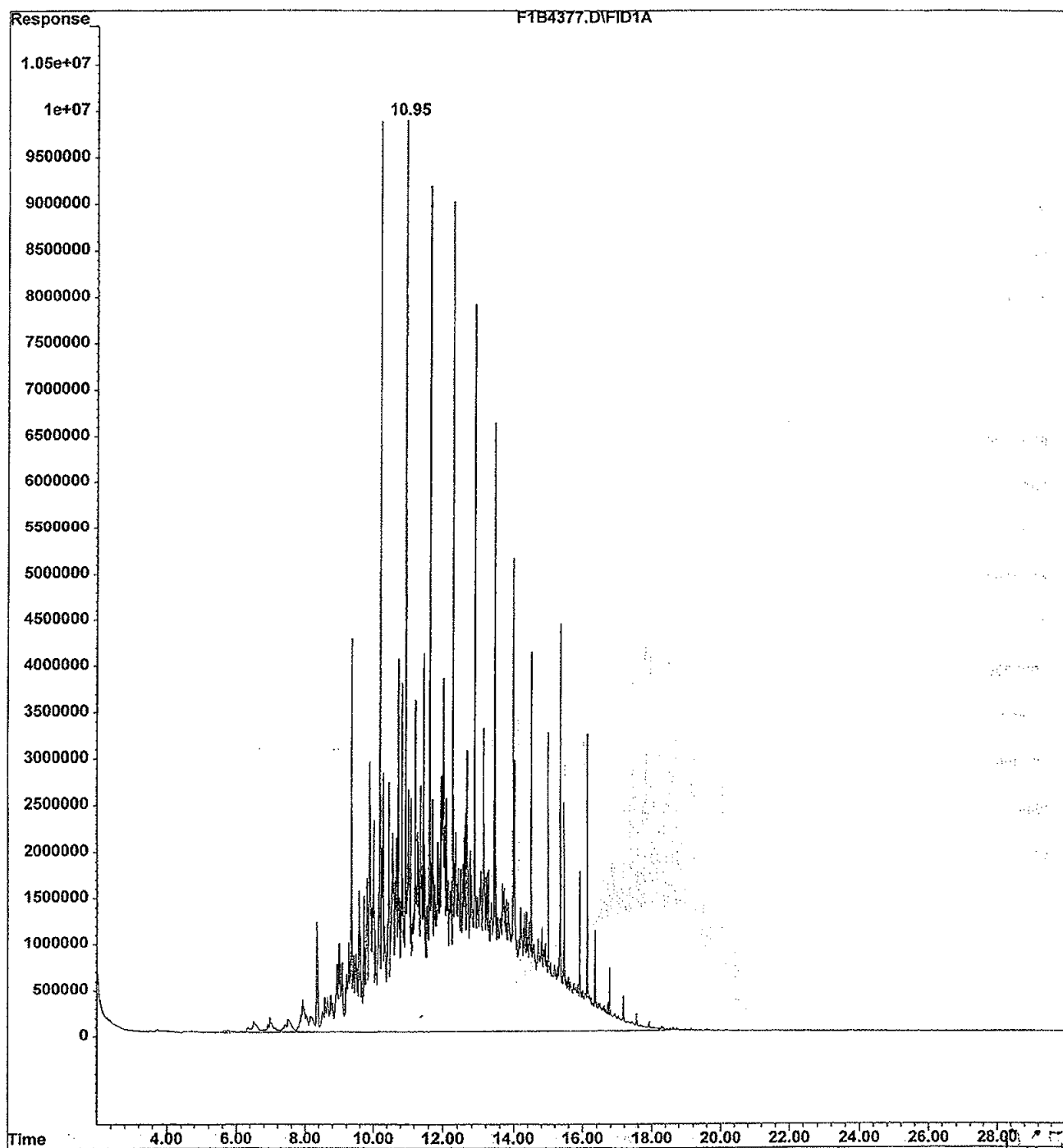
Data File : C:\HPCHEM\1\DATA\SEPT00\000905\F1B3937.D Vial: 2
Acq On : 9-5-00 13:06:19 PM Operator: BECKY
Sample : 71306001 X20DF Inst : F1
Misc : Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Sep 5 13:37 19100 Quant Results File: TPH0814F.RES

Quant Method : C:\HPCHEM\1\METHODS\TPH0814F.M (Chemstation Integrator)
Title : TPH-GC, Fuel ID, DRO
Last Update : Fri Sep 01 14:58:42 2000
Response via : Multiple Level Calibration
DataAcq Meth : TPH-F.M

Volume Inj. : 1
Signal Phase : DB-5MS
Signal Info : 0.25



File : C:\HPCHEM\1\DATA\OCT00\001030\F1B4377.D
Operator : BECKY
Acquired : 10-31-00 0:43:24 PM using AcqMethod TPH-F.M
Instrument : F1
Sample Name: DIESEL, 5 MG/ML CALIBRATION STANDARD
Misc Info :
Vial Number: 100



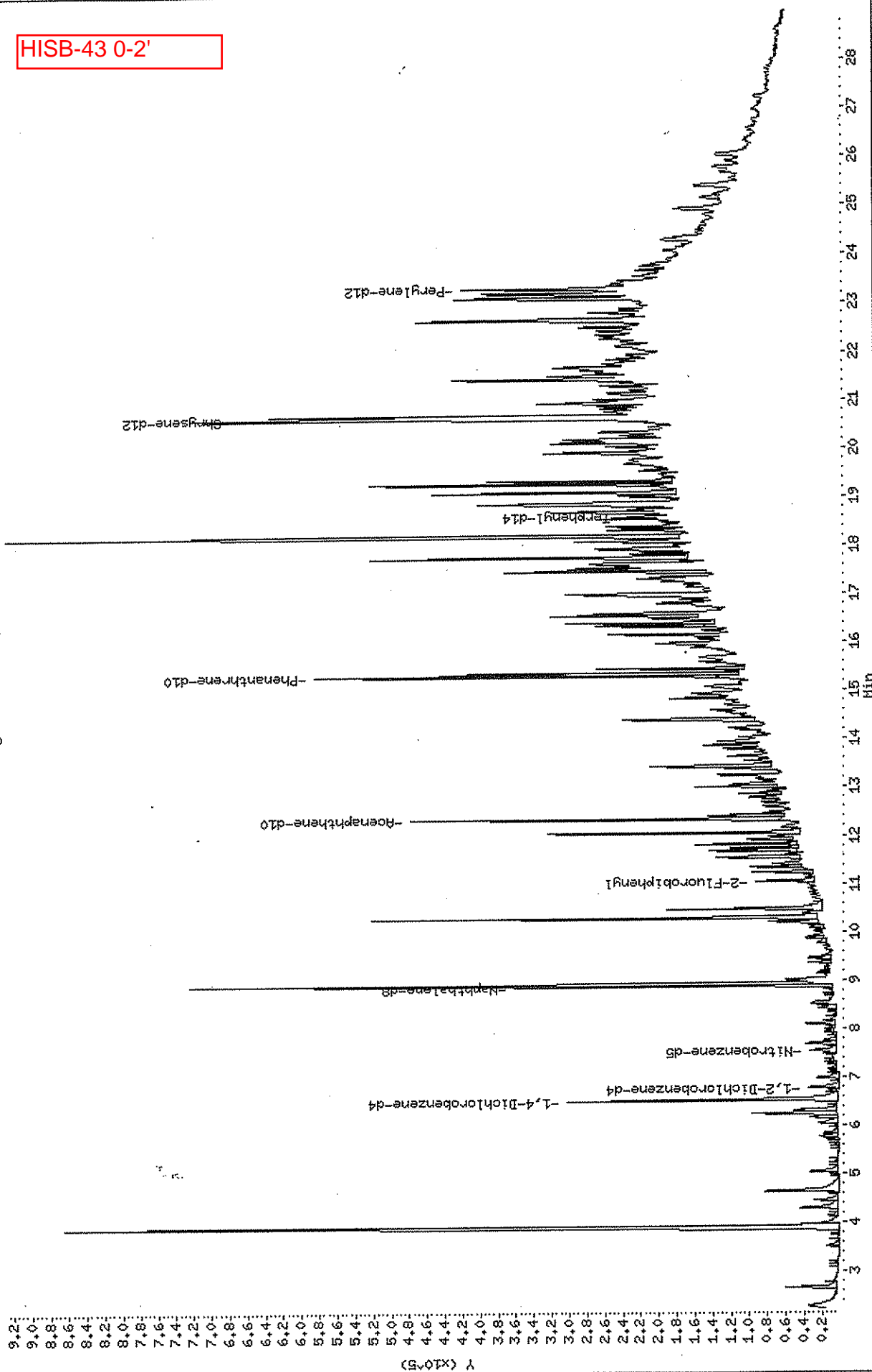
Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817A.B\S2B6111.D
Date : 18-AUG-2000 06:30
Client ID: HISB4302
Sample Info: 71235015,HISB4302,S0814-BS2.QY,,71235
Volume Injected (ul): 1.0
Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

\\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817A.B\S2B6111.D



HISB-43 16-18'

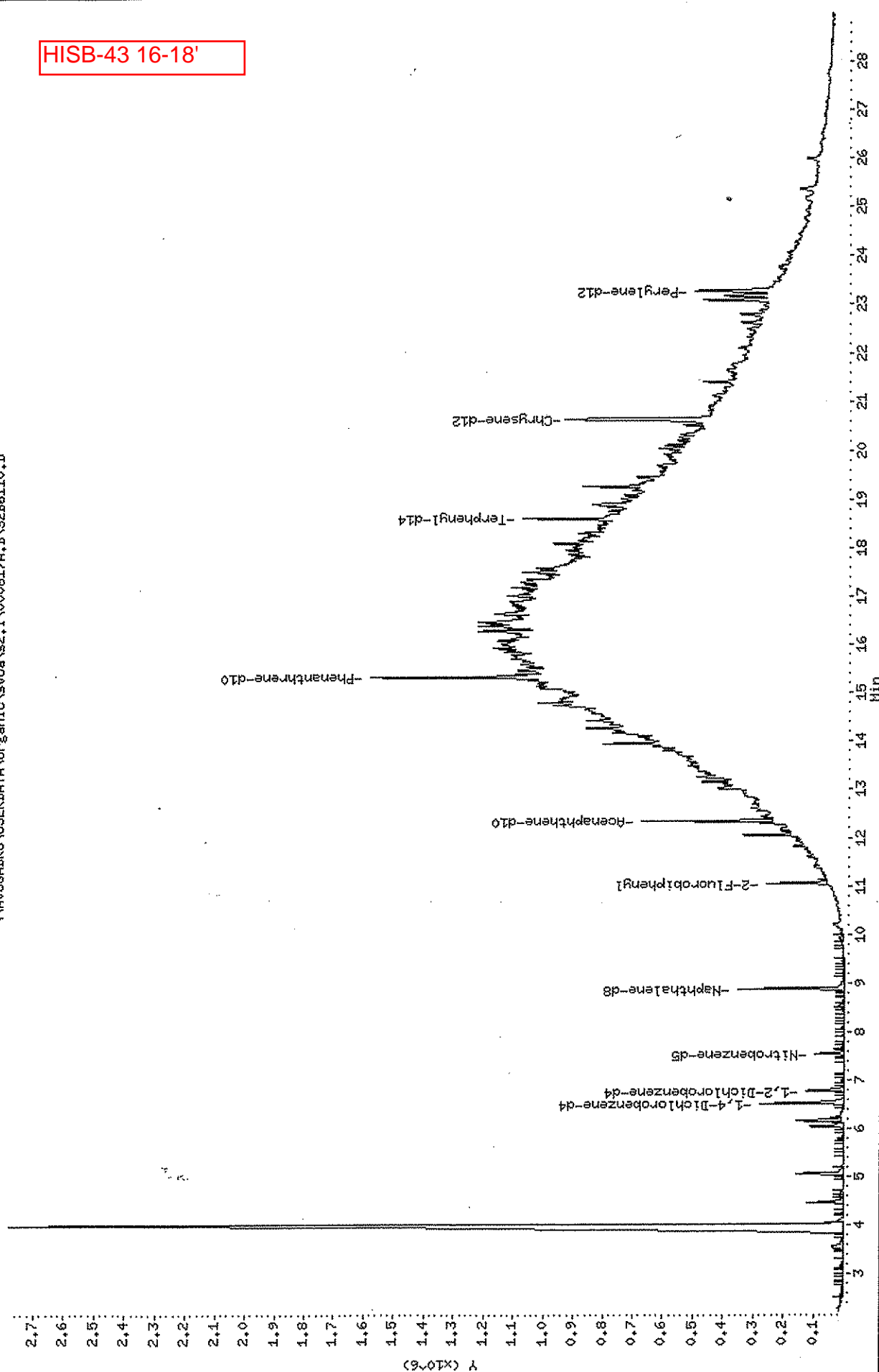
\\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817A.F\2B6110.D

Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817A.F\2B6110.D
Date : 18-AUG-2000 05:53
Client ID: SB431618
Sample Info: 71235016,SB431618,S0814-BS2.QY,,71235
Volume Injected (uL): 1.0
Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25



HISB-43 26-28'

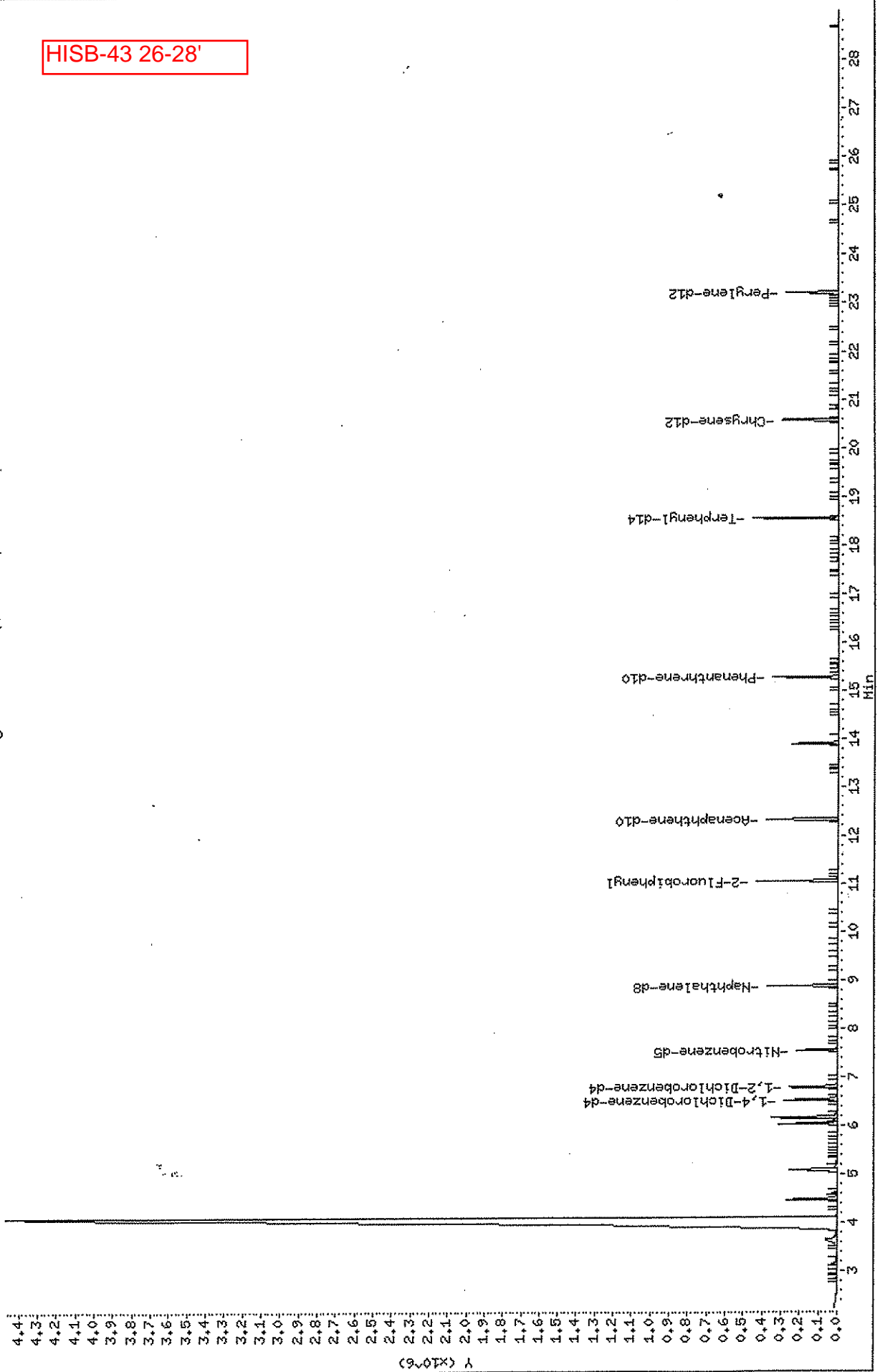
\\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817.B\S2B6089.D

Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817.B\S2B6089.D
 Date: 17-AUG-2000 16:40
 Client ID: SB432628
 Sample Info: 71235017, SB432628, S0814-BS2.QY, 71235
 Volume Injected (ul): 1.0
 Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25



Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817.B\S2B6087.D

Date : 17-AUG-2000 15:26

Client ID: SB436163

Sample Info: 71235019,SB436163,S0814-BS2,QY,,71235

Volume Injected (uL): 1.0

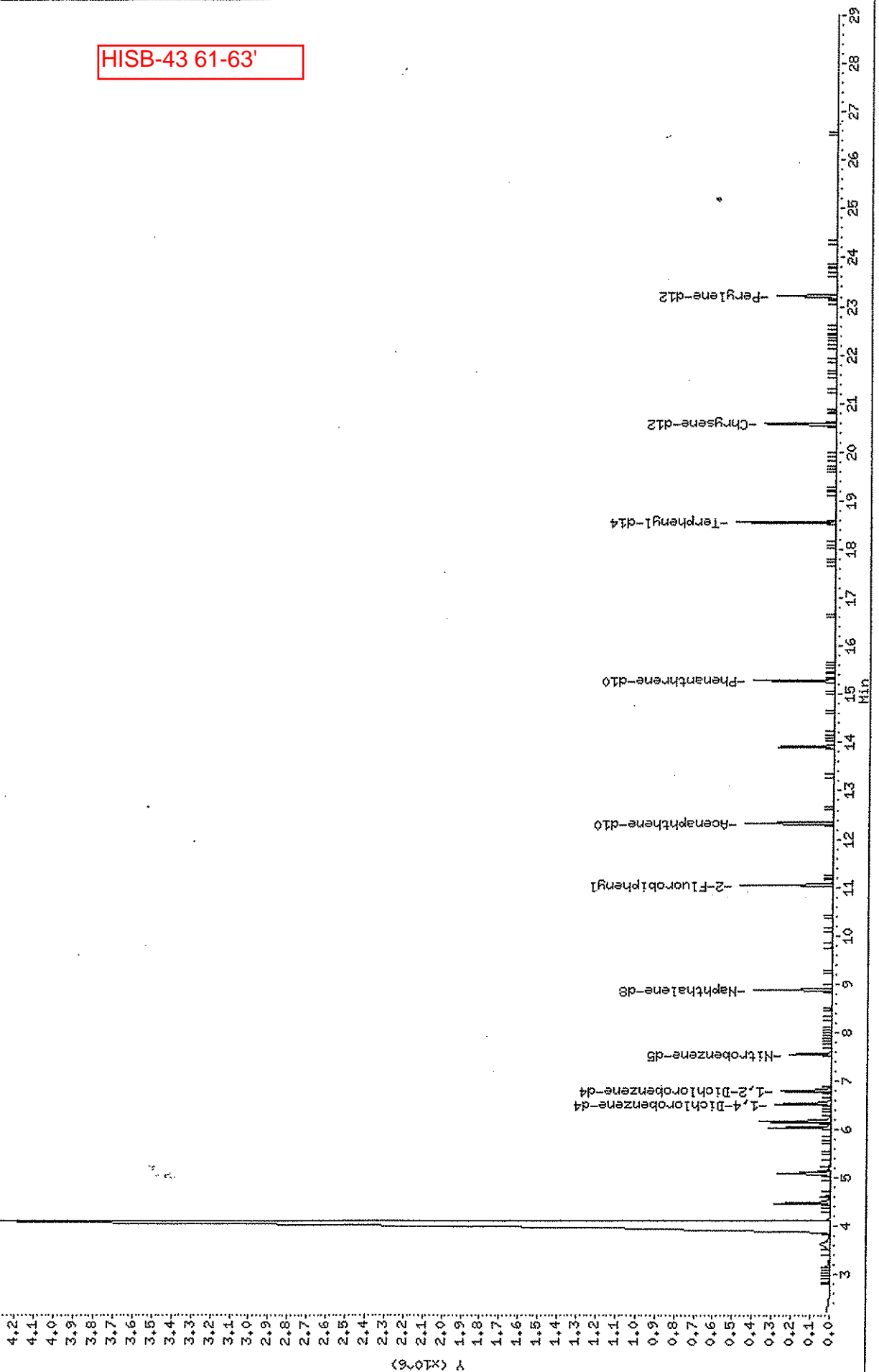
Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

\\AVOCADRO\USERDATA\Organic\svoa\s2.i\000817.B\S2B6087.D



HISB-44 6-8'

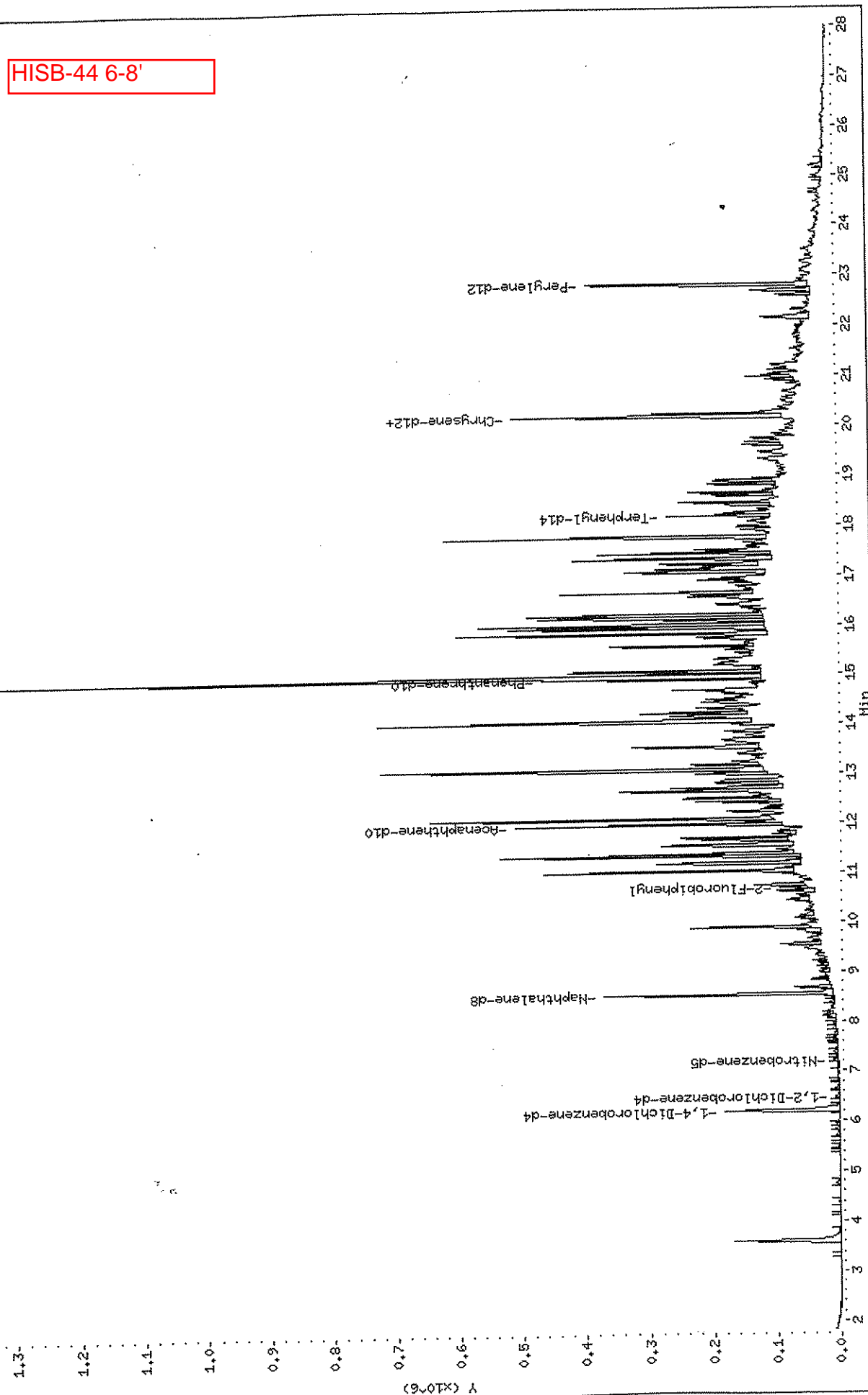
Data File: \\AVOGADRO\USERDATA\Organic\svoa\s2.i\000823.B\S2B6202.D
Date : 23-AUG-2000 15:05
Client ID: HISB4468
Sample Info: 71255009,HISB4468,S0821-BS1.QY.3,71255
Volume Injected (ul): 1.0
Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25

\\AVOGADRO\USERDATA\Organic\svoa\s2.i\000823.B\S2B6202.D

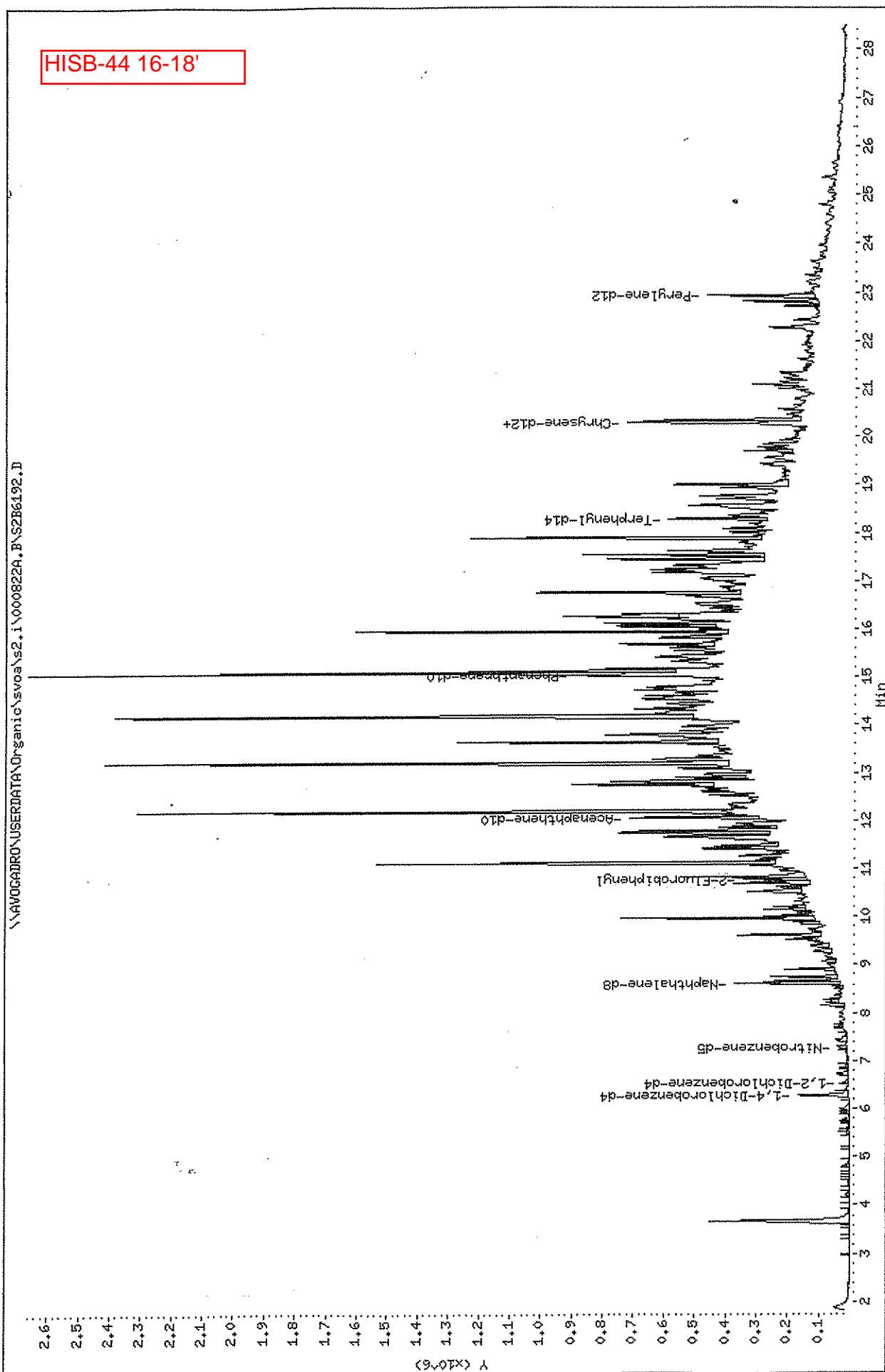


Data File: \\AVOCADRO\USERDATA\Organic\svoa\s2.i\000822A.B\S2B6192.D
 Date : 23-AUG-2000 06:02
 Client ID: SB441416
 Sample Info: 71255010,SB441416,S0821-BSL,QY,,71255
 Volume Injected (ul): 1.0
 Column phase: DB-5MS

Instrument: S2.i

Operator: QY

Column diameter: 0.25



Data File: \\AVOGADRO\USERDATA\Organic\svoa\s2.i\000823.P\S2B6203.D
Date : 23-AUG-2000 15:41
Client ID: SB442426DL
Sample Info: 71255011DL,SB442426DL,S0821-B51,QY,10,71355
Volume Injected (uL): 1.0
Column phase: DB-5MS

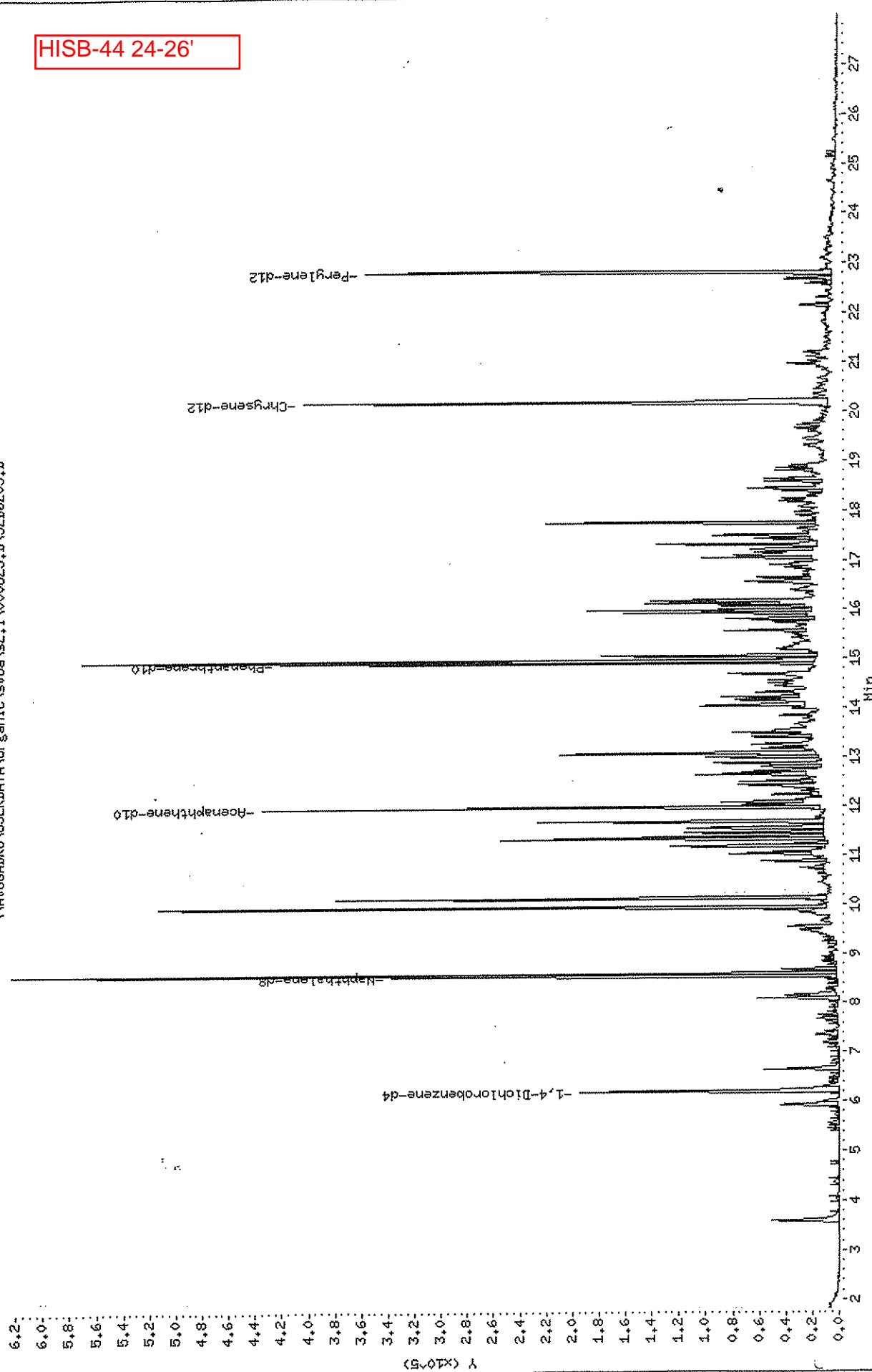
Instrument: S2.i

Operator: QY

Column diameter: 0.25

\\AVOGADRO\USERDATA\Organic\svoa\s2.i\000823.P\S2B6203.D

HISB-44 24-26'



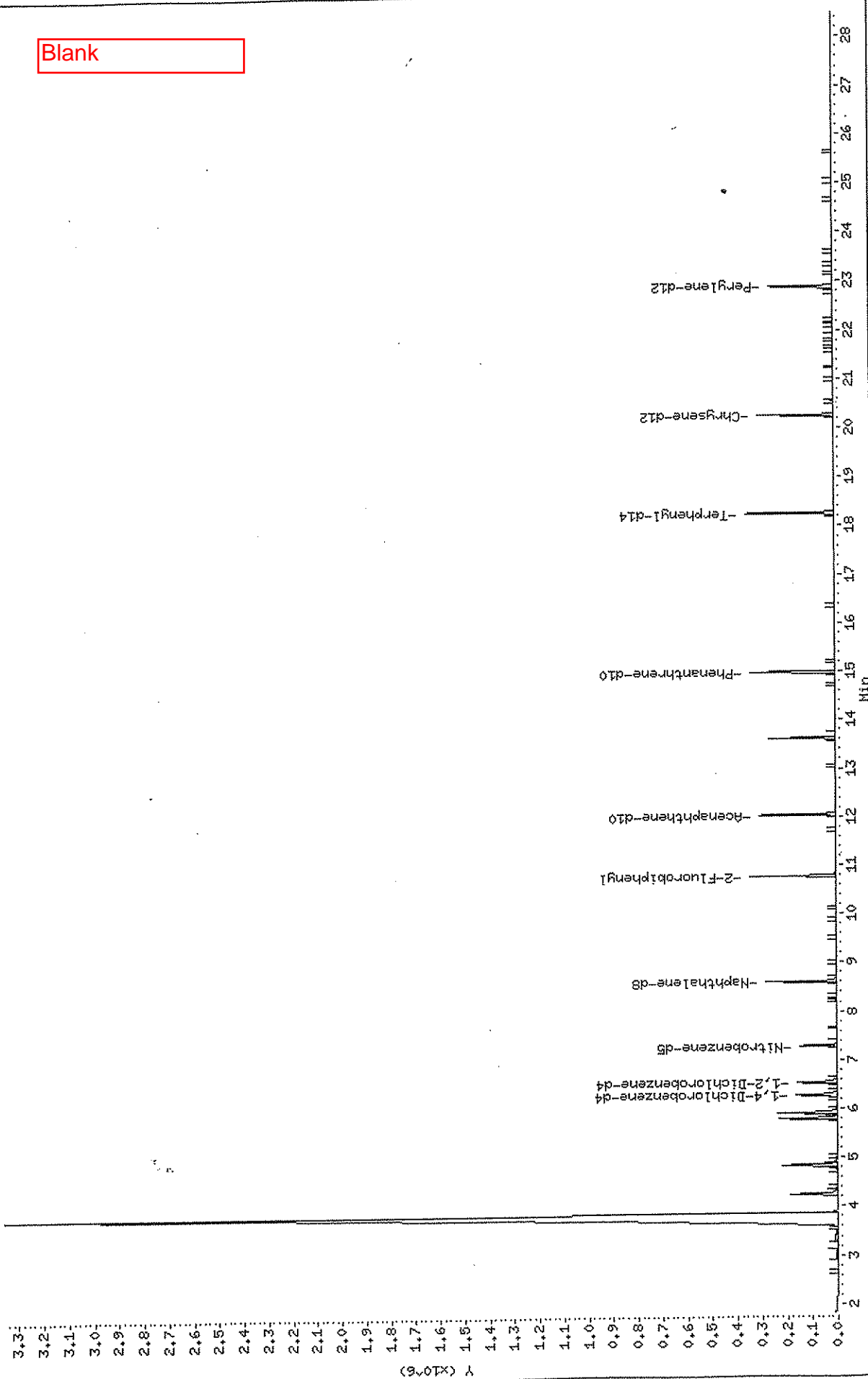
Data File: \\NAVOGADRO\USERDATA\Organic\svoa\s2,i\000822A,B\S2B6181.D
 Date : 22-AUG-2000 23:25
 Client ID: SB445961
 Sample Info: 71255012,SB445961,S0821-BS1.QY,,71255
 Volume Injected (uL): 1.0
 Column phase: DB-5MS

Instrument: S2.i

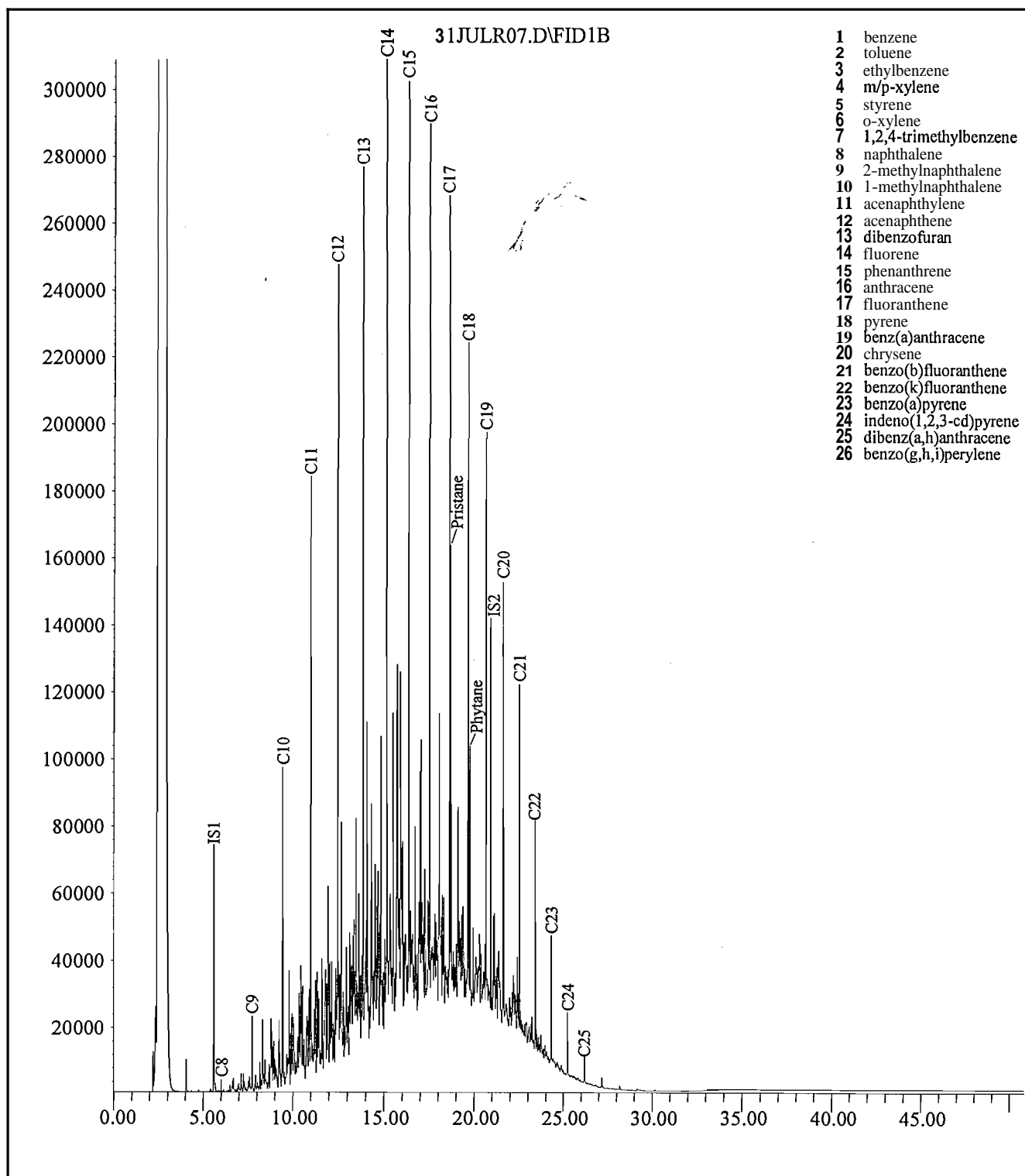
Operator: QY

Column diameter: 0.25

\\NAVOGADRO\USERDATA\Organic\svoa\s2,i\000822A,B\S2B6181.D



GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

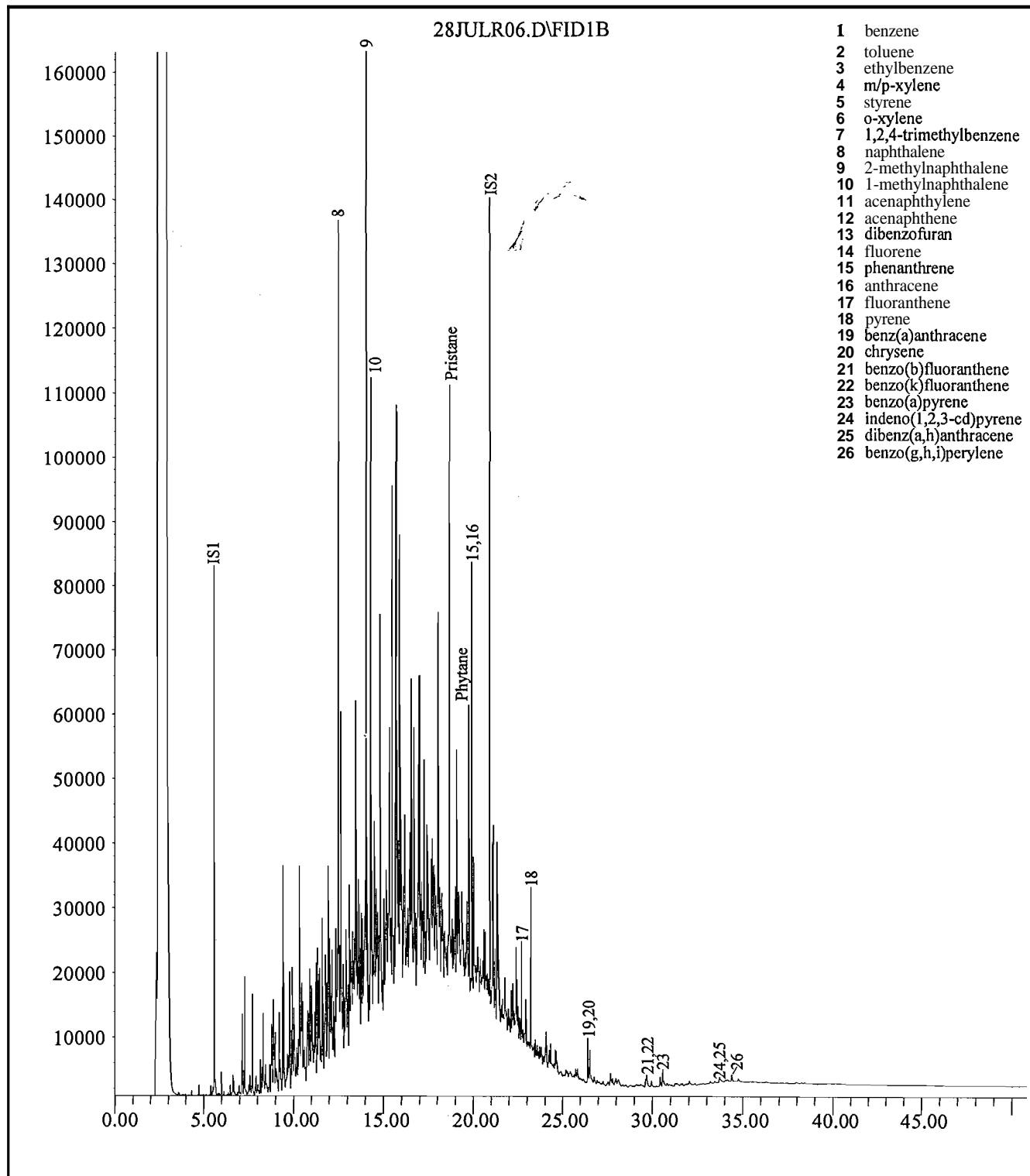
IS2 - o-terphenyl

Field ID: HIMW-10S

Laboratory ID: DB020717-01

Method: MET4007D

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

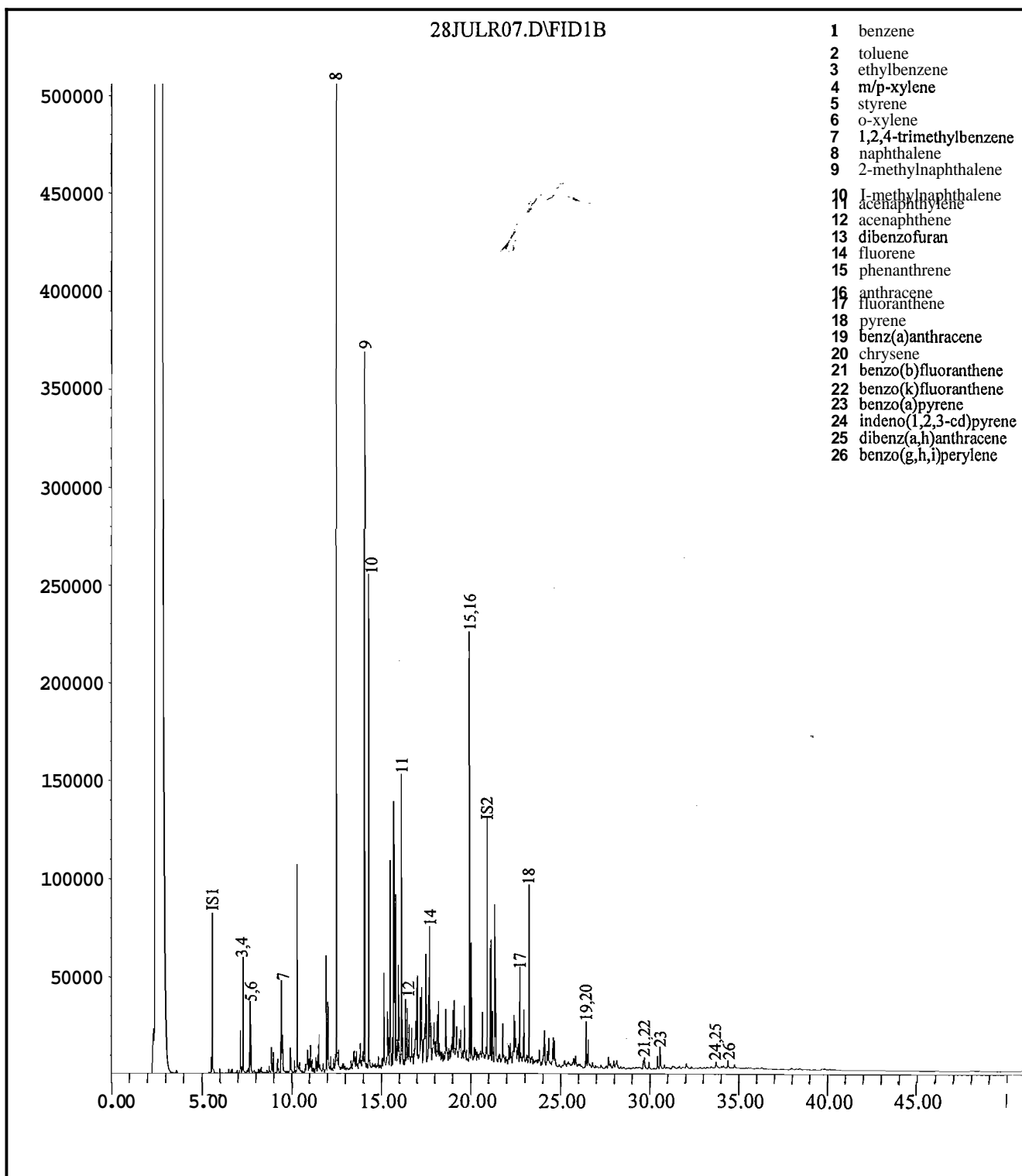
IS2 - o-terphenyl

Field ID: HIMW-11S

Laboratory ID: DB020717-02

Method: MET4007D

GC/FID Fingerprint

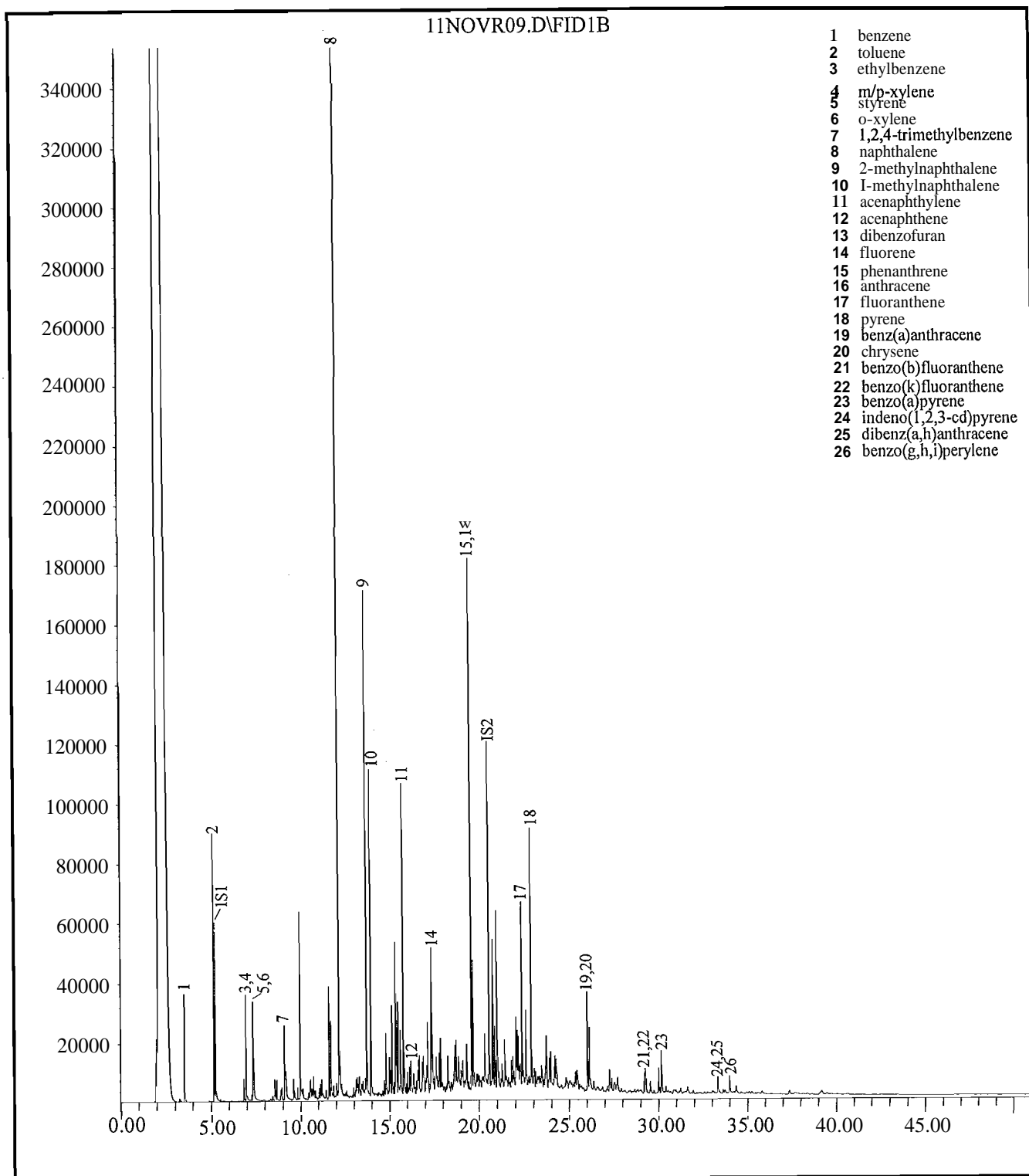


IS1 - 2,4-difluorotoluene

IS2 - o-terphenyl

Field ID: **HIMW-01S**
Laboratory ID: DB020717-03
Method: MET4007D

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

IS2 - o-terphenyl

SS1 - fluorobenzene

SS2 - 2-fluorobiphenyl

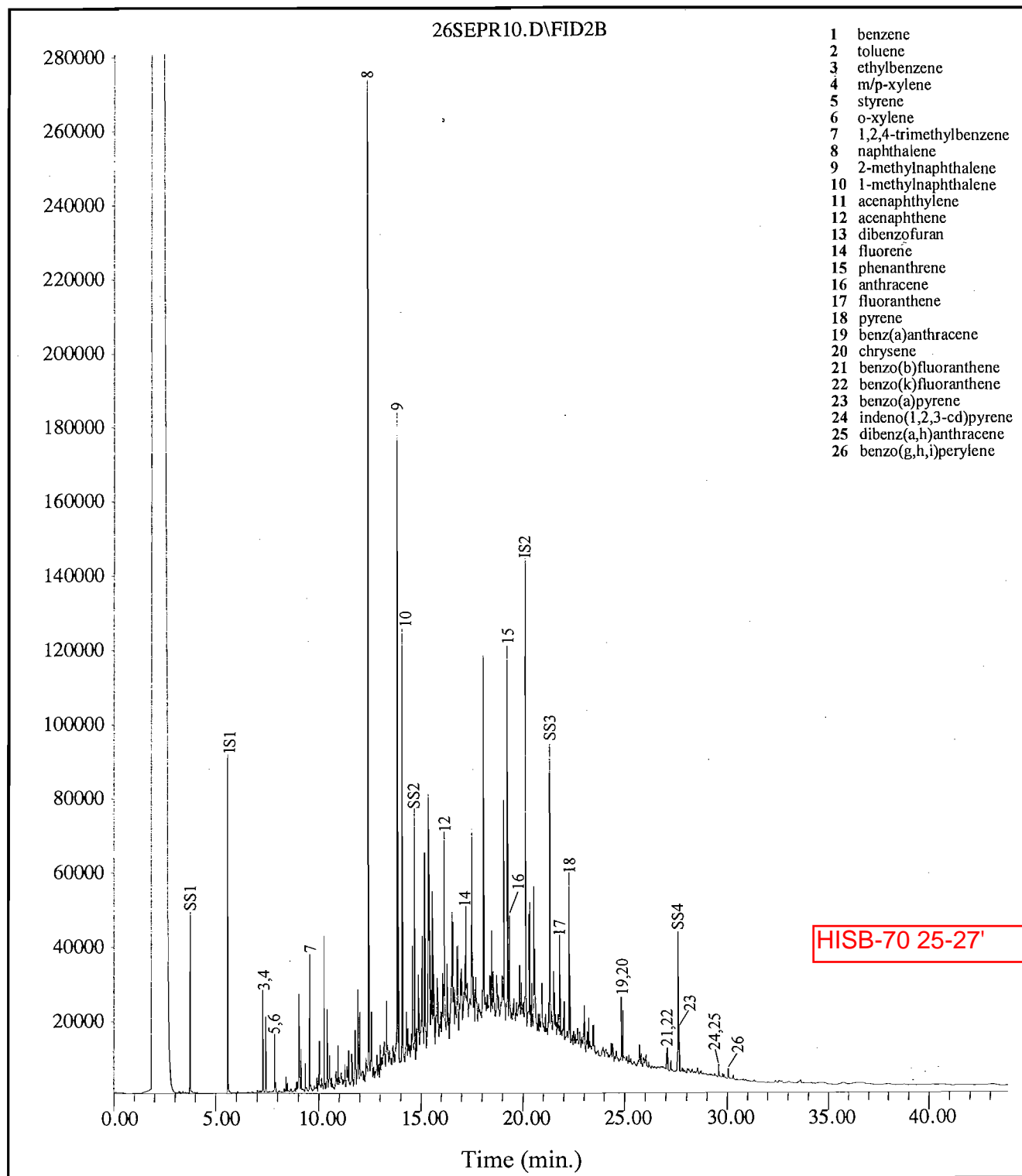
SS3 - 5 α -androstane

Field ID: **HIMW-06S**

Laboratory ID: DB021101-01

Method: MET4007D

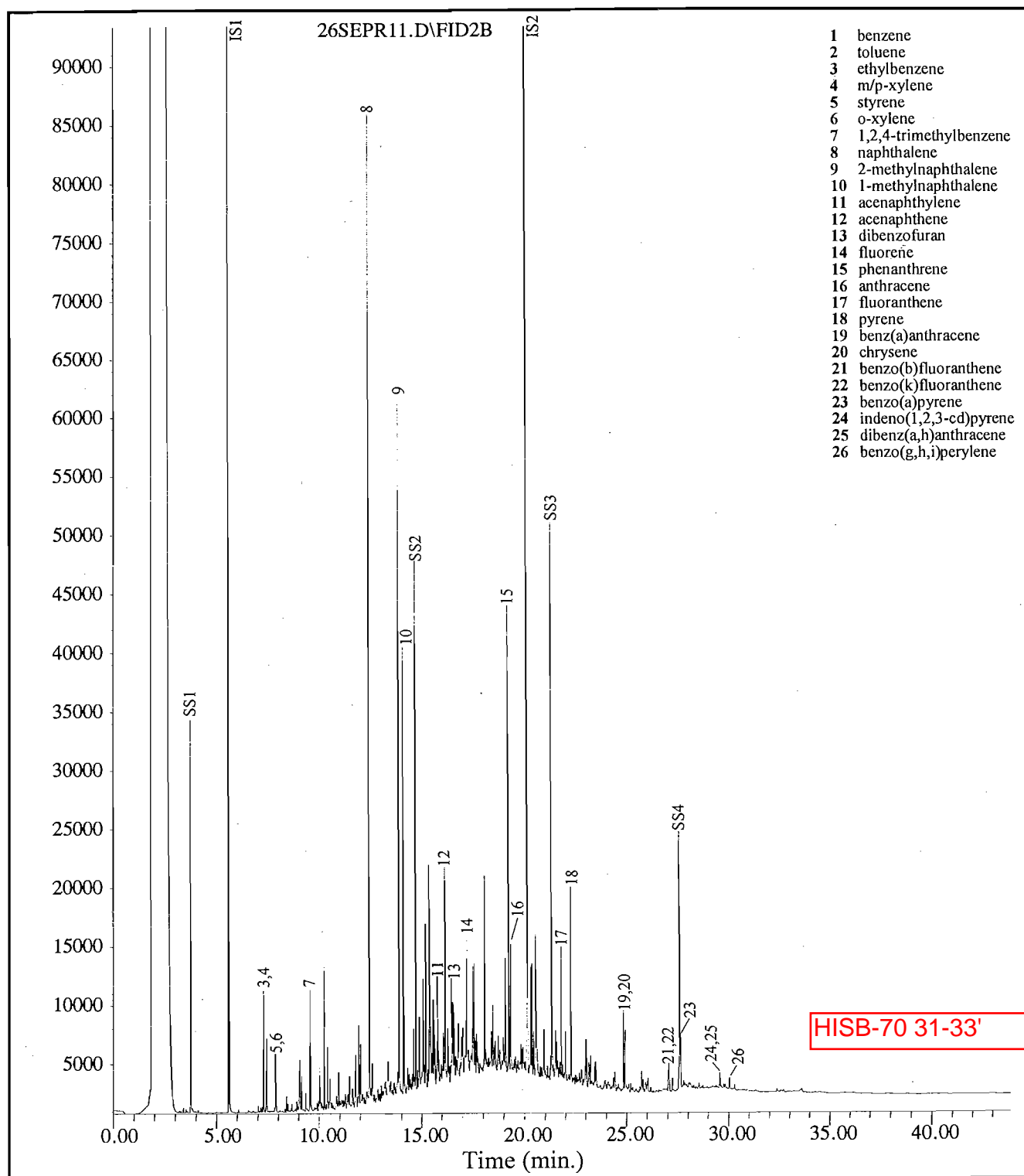
GC/FID Fingerprint



IS1 - 2,4-difluorotoluene
IS2 - o-terphenyl
SS1 - fluorobenzene
SS2 - 2-fluorobiphenyl
SS3 - 5 α -androstane
SS4 - benzo(a)pyrene-d12

Field ID: 0309377-001A
Laboratory ID: HT030913-01
Method: MET4007

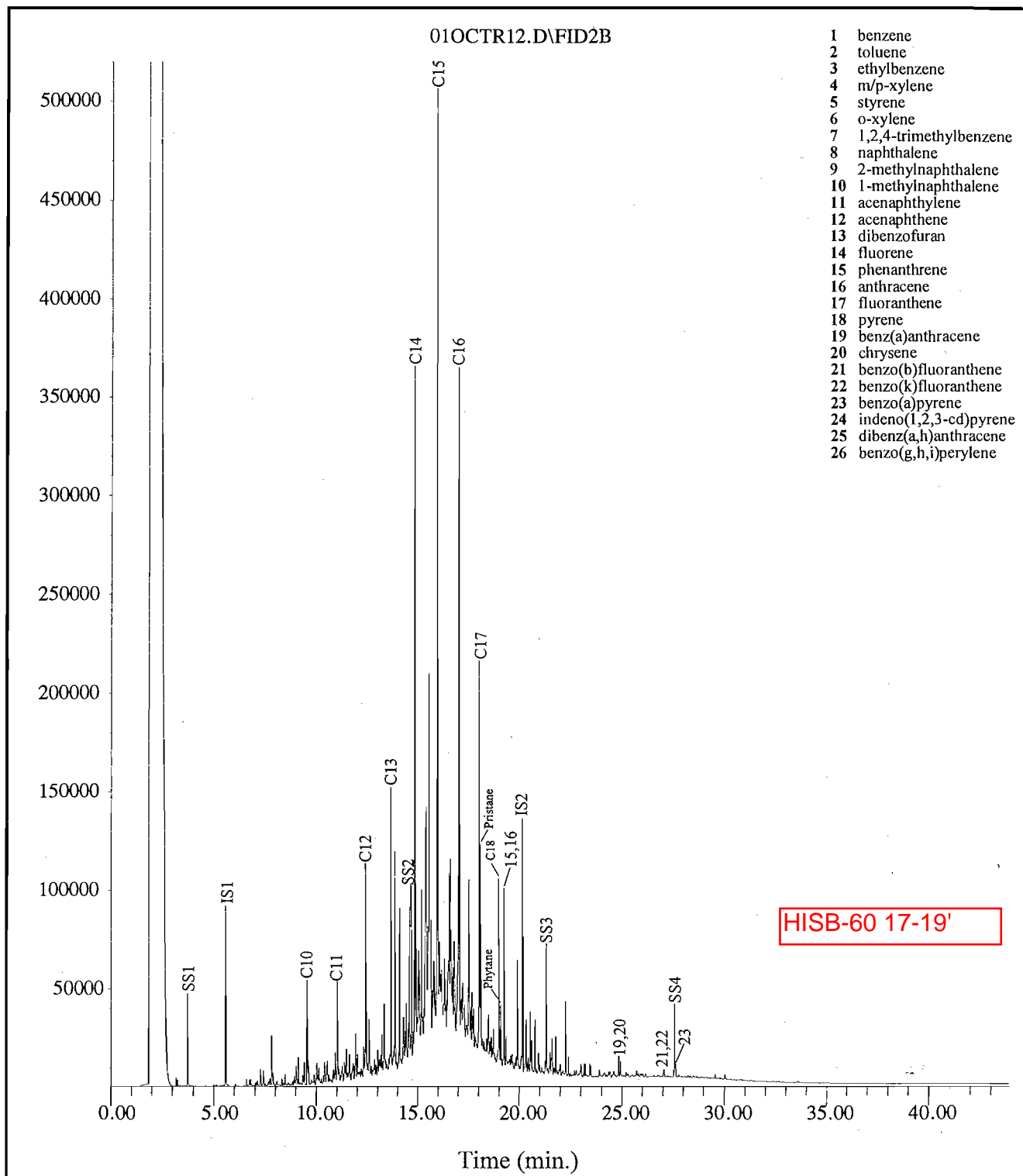
GC/FID Fingerprint



IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5 α -androstane
SS4 – benzo(a)pyrene-d12

Field ID: 0309377-002A
Laboratory ID: HT030913-02
Method: MET4007

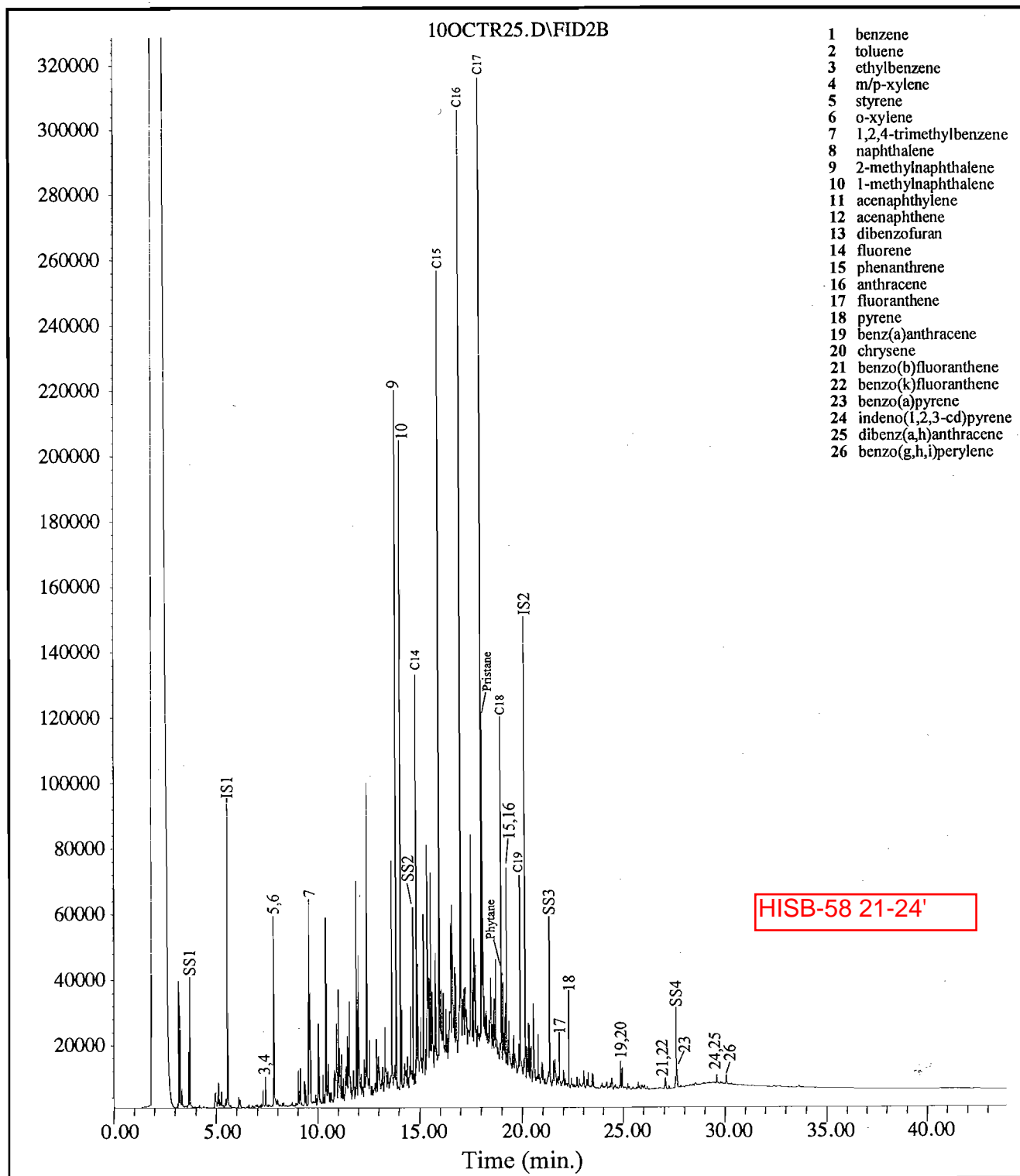
GC/FID Fingerprint



ISI – 2,4-difluorotoluene
IS2 – o-terphenyl
SSI – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5 α -androstanone
SS4 – benzo(a)pyrene-d12

Field ID: 0309817-001A
Laboratory ID: HT030930-01
Method: METD7015

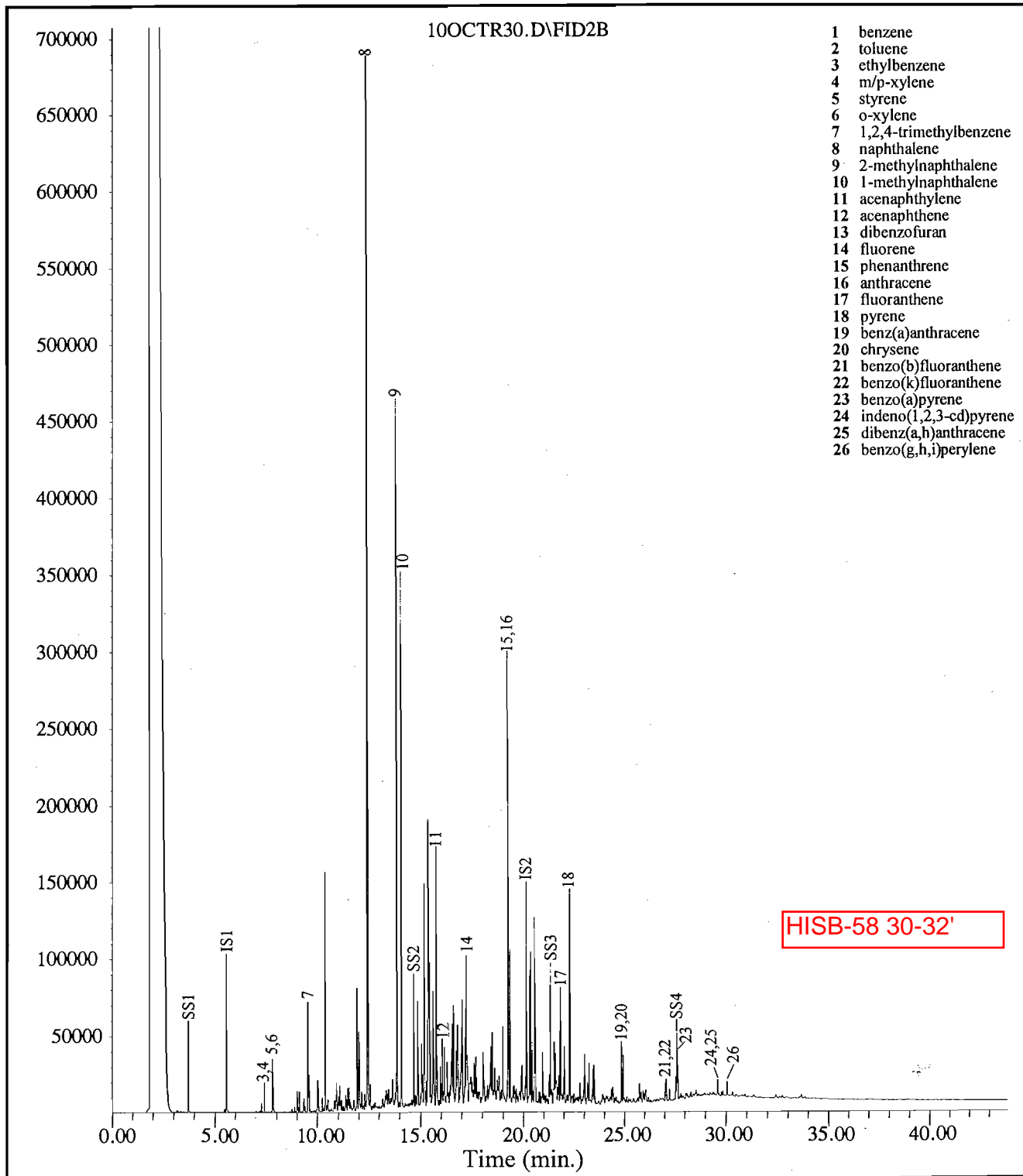
GC/FID Fingerprint



IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5 α -androstane
SS4 – benzo(a)pyrene-d12

Field ID: 0310103-001A
Laboratory ID: HT031006-01
Method: METD7015

GC/FID Fingerprint



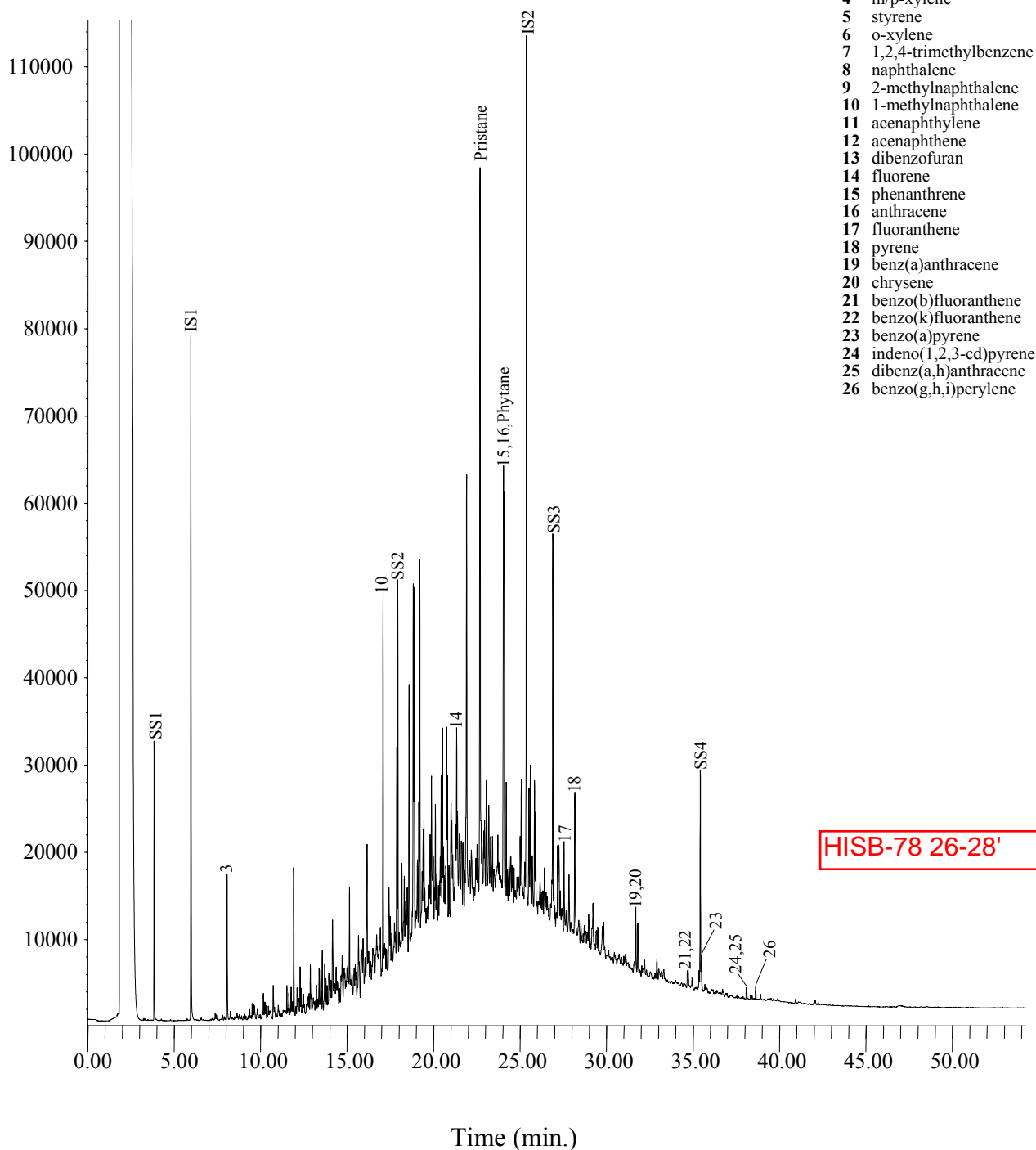
IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5 α -androstane
SS4 – benzo(a)pyrene-d12

Field ID: 0310103-002A
Laboratory ID: HT031006-02
Method: METD7015

GC/FID Fingerprint

App Page 25 of 749

12MARR09.D\FID2B

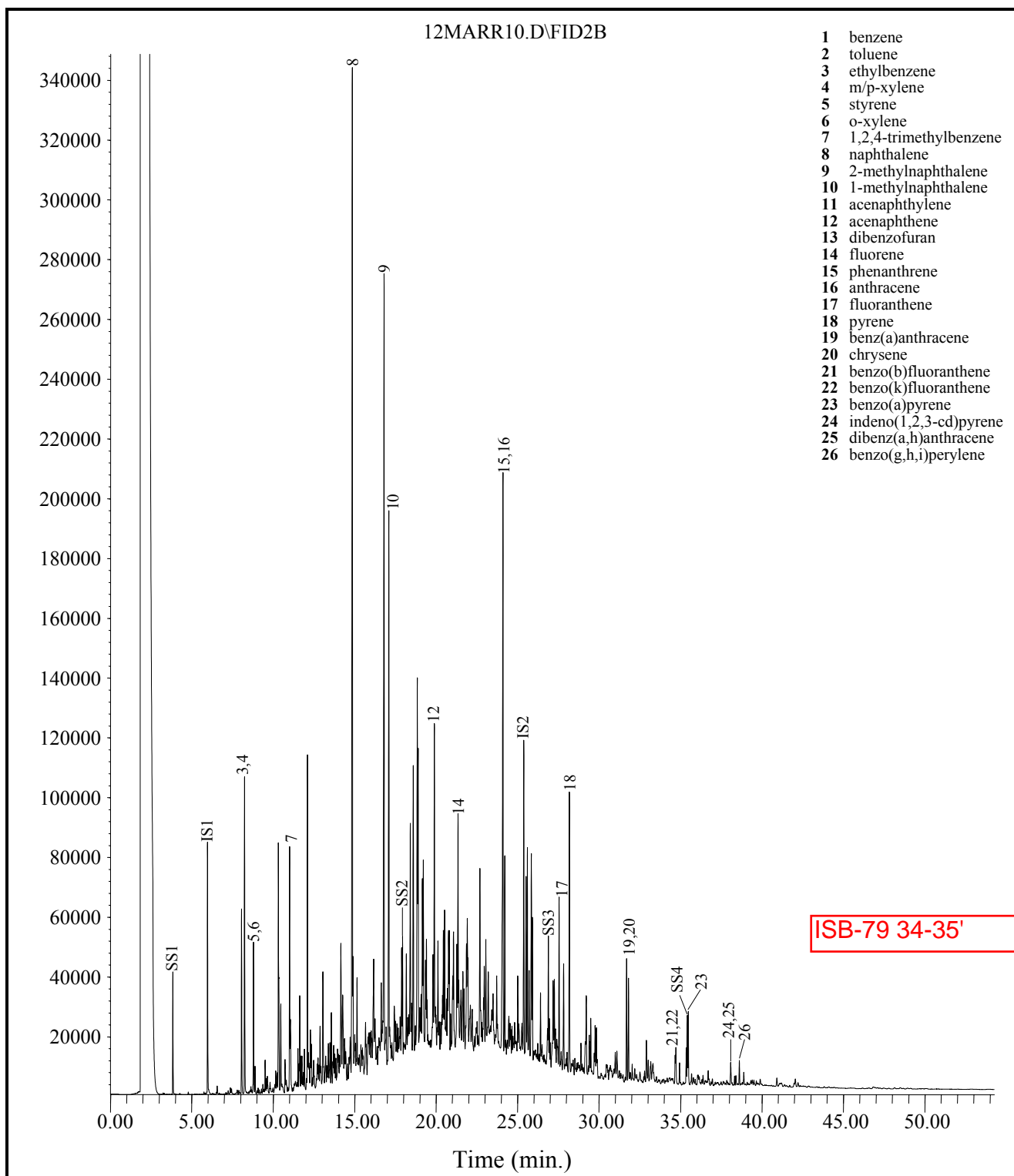


IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5a-androstane
SS4 – benzo(a)pyrene-d12

Field ID: 0403256-001A
Laboratory ID: HT040308-01
Method: METR4007P

GC/FID Fingerprint

App Page 26 of 749



IS1 – 2,4-difluorotoluene

IS2 – o-terphenyl

SS1 – fluorobenzene

SS2 – 2-fluorobiphenyl

SS3 – 5a-androstane

SS4 – benzo(a)pyrene-d12

Field ID: 0403256-002A

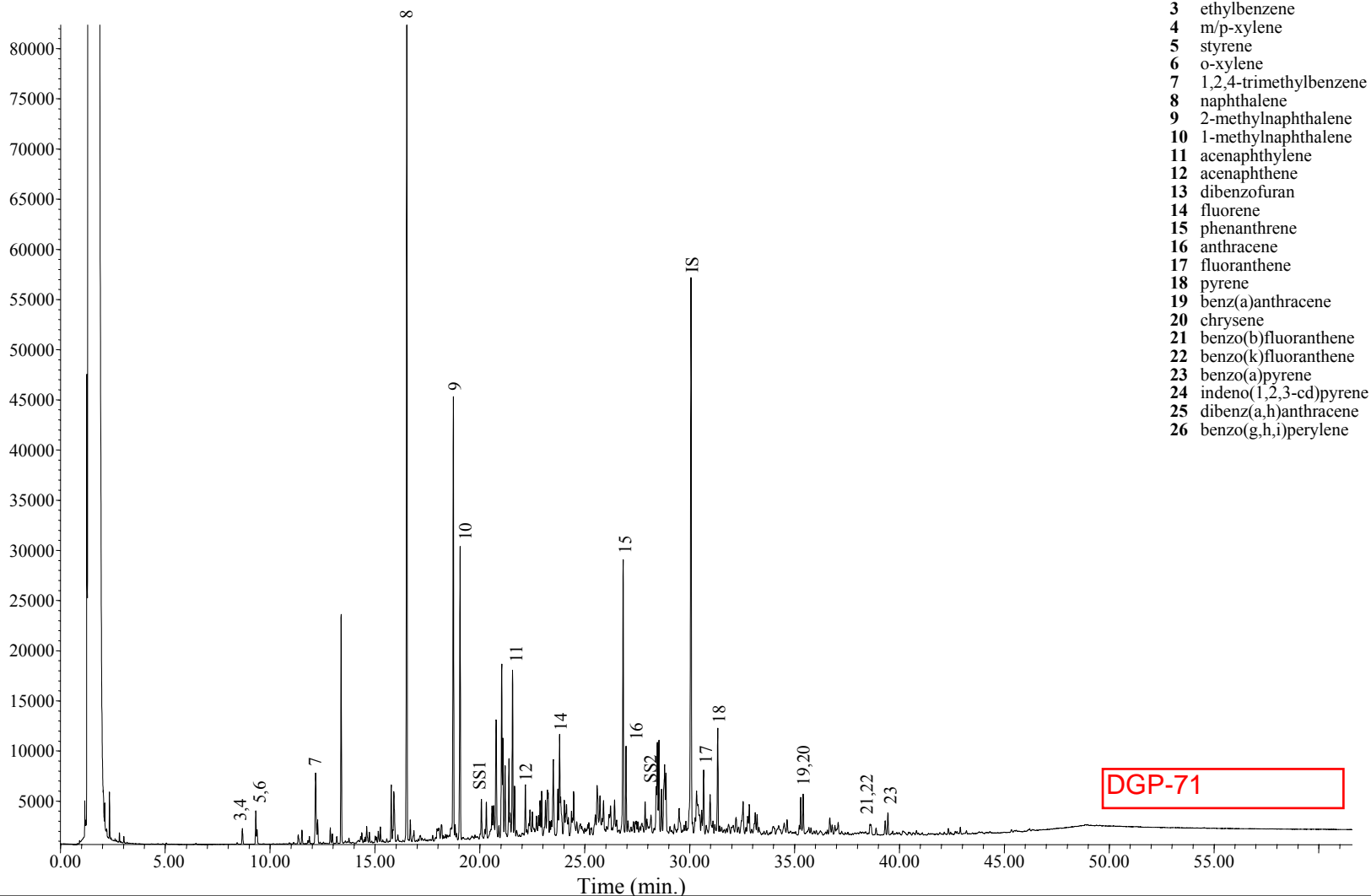
Laboratory ID: HT040308-02

Method: METR4007P

GC/FID Fingerprint

App Page 27 of 749

C010323.D\FID1A



Extraction Date: 01/03/2008

Analysis Date: 01/04/2008

IS - 5- α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

Field ID: 0714446-008C

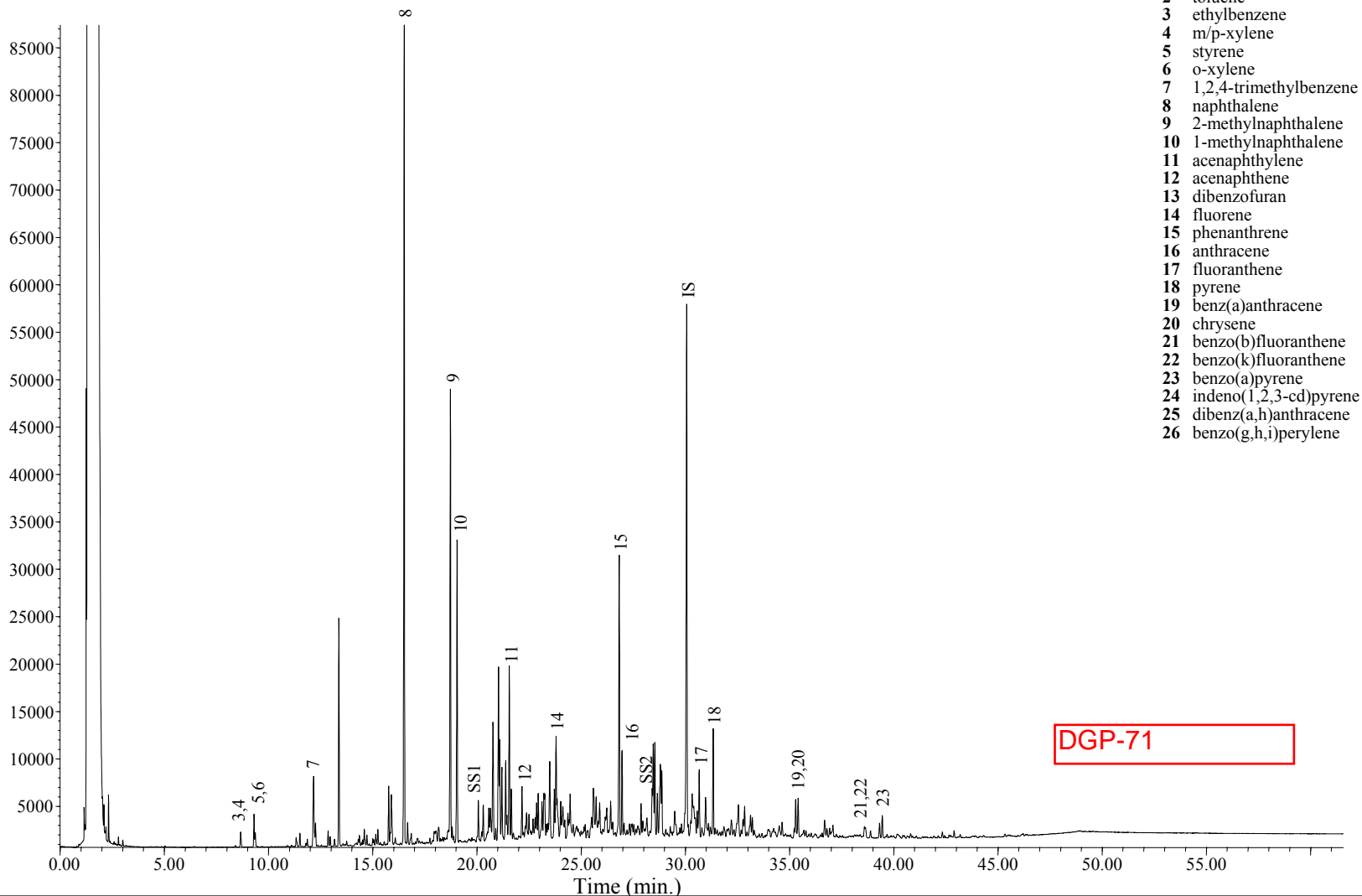
Laboratory ID: HC071228-01-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 28 of 749

C010324.D\FID1A



Extraction Date: 01/03/2008

Analysis Date: 01/04/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0714446-008C

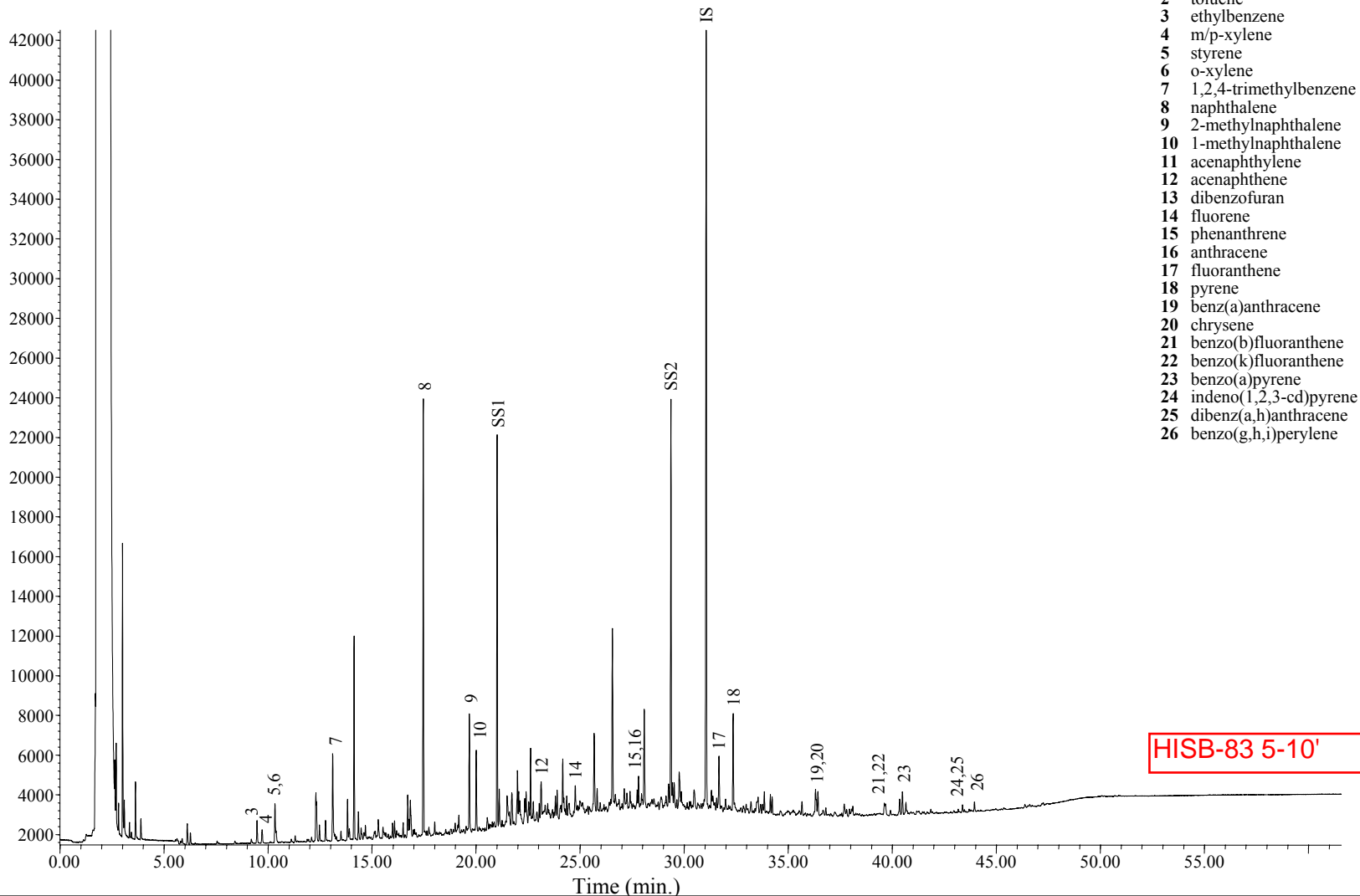
Laboratory ID: HC071228-01DUP-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 29 of 749

C012113.D\FID2B



Extraction Date: 01/21/2008

Analysis Date: 01/22/2008

IS - 5-a-androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0801605-001D

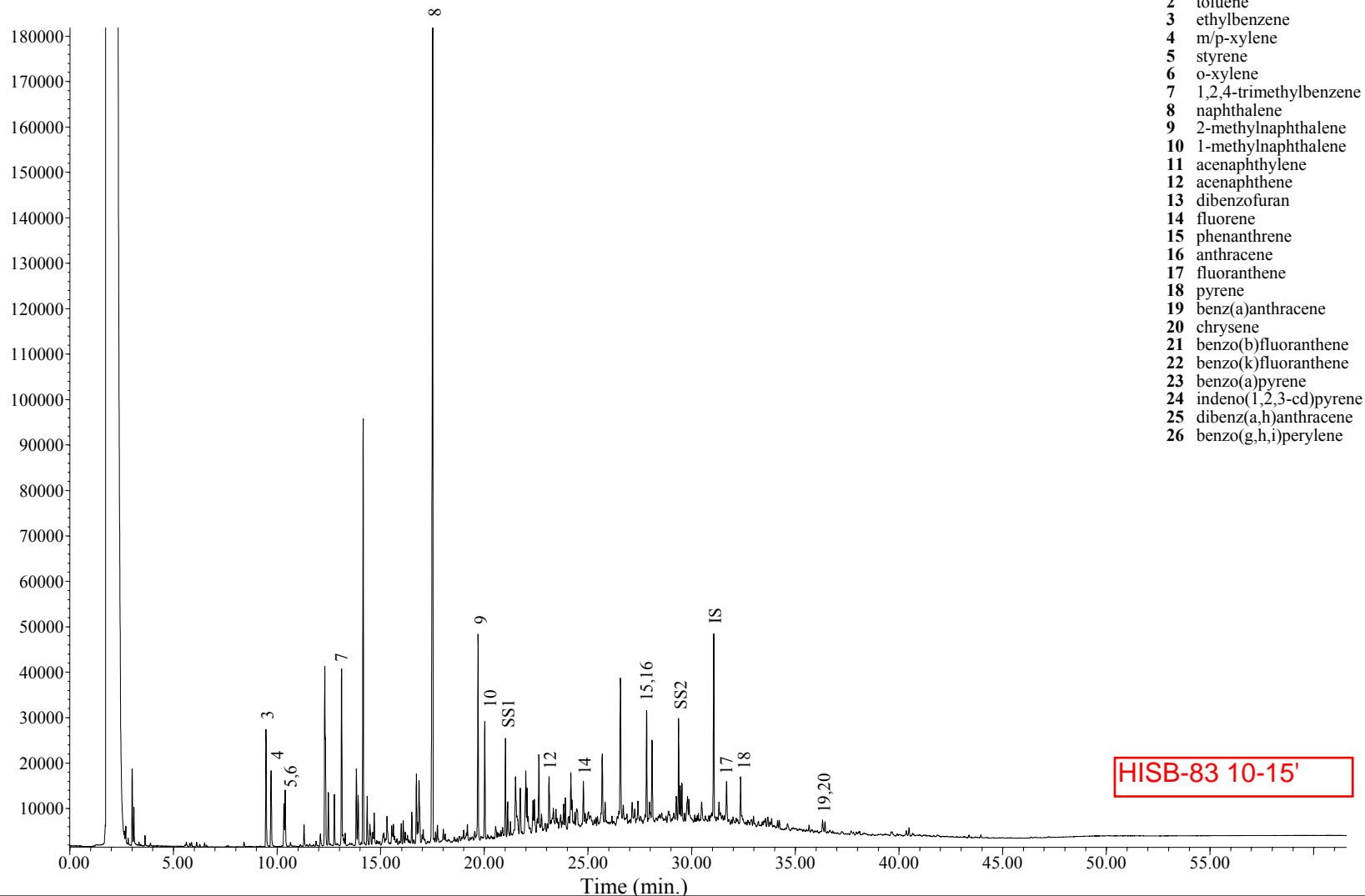
Laboratory ID: HC080118-01

Method: EPA 8100M

GC/FID Fingerprint

App Page 30 of 749

C012114.D\FID2B



Extraction Date: 01/21/2008

Analysis Date: 01/22/2008

IS - 5- α -androsterone
SS1 - 2-fluorobiphenyl
SS2 - o-terphenyl

Field ID: 0801605-002D

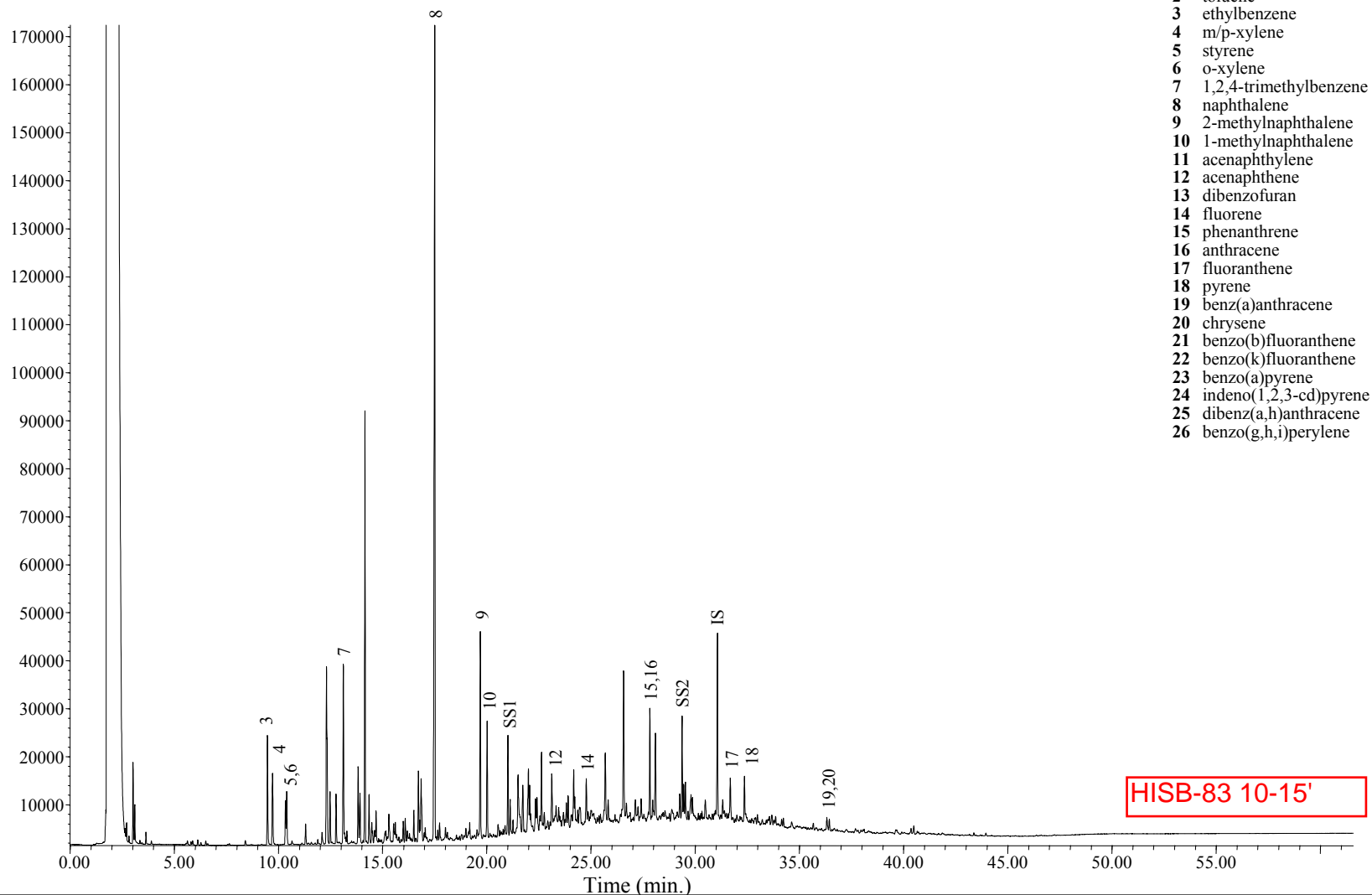
Laboratory ID: HC080118-02

Method: EPA 8100M

GC/FID Fingerprint

App Page 31 of 749

C012115.D\FID2B



Extraction Date: 12/11/2007

Analysis Date: 12/11/2007

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0801605-002D

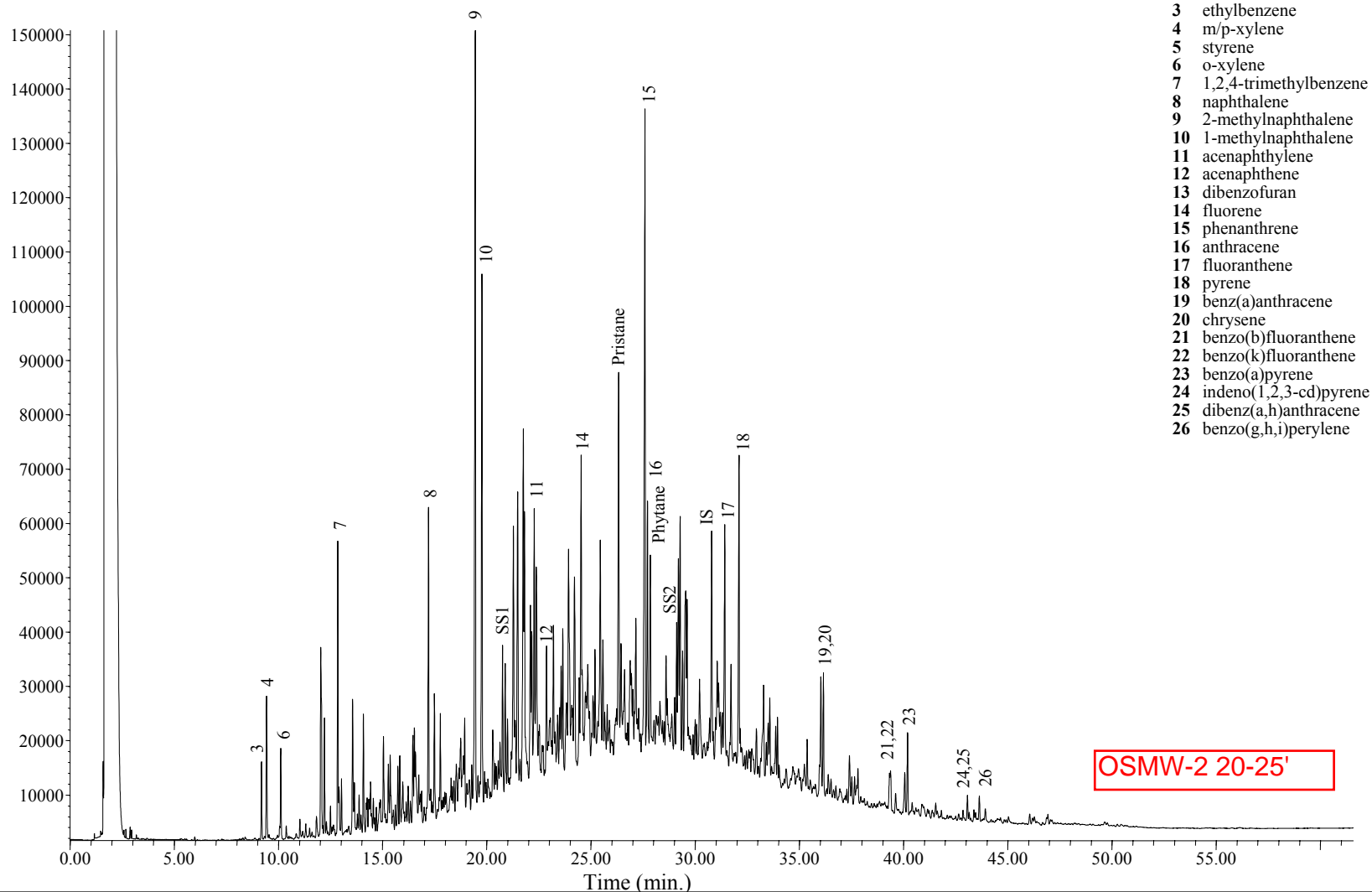
Laboratory ID: HC080118-02DUP

Method: EPA 8100M

GC/FID Fingerprint

App Page 32 of 749

C021308.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/13/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0802315-001D

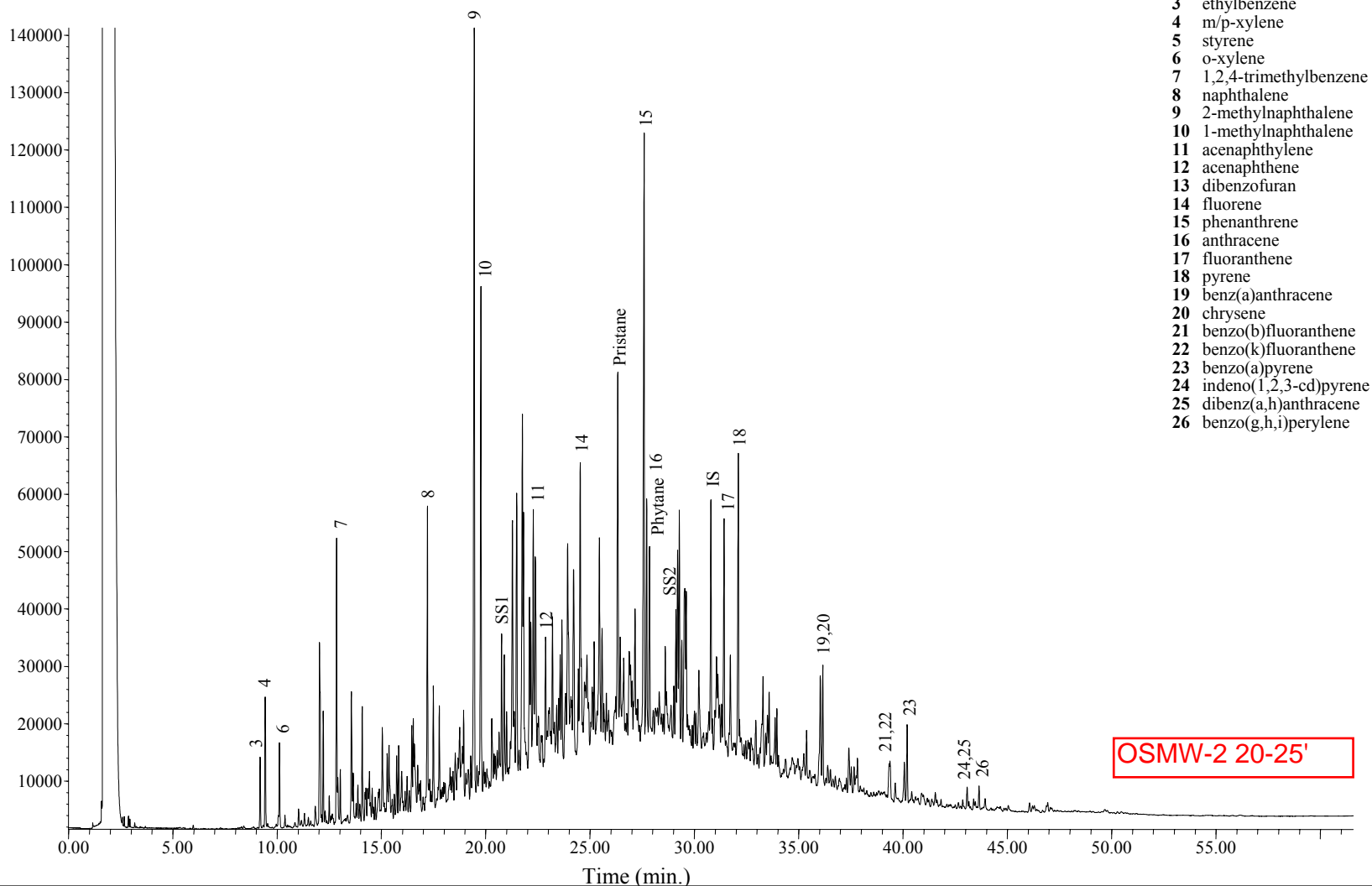
Laboratory ID: HC080209-01

Method: EPA 8100M

GC/FID Fingerprint

App Page 33 of 749

C021309.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/13/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0802315-001D

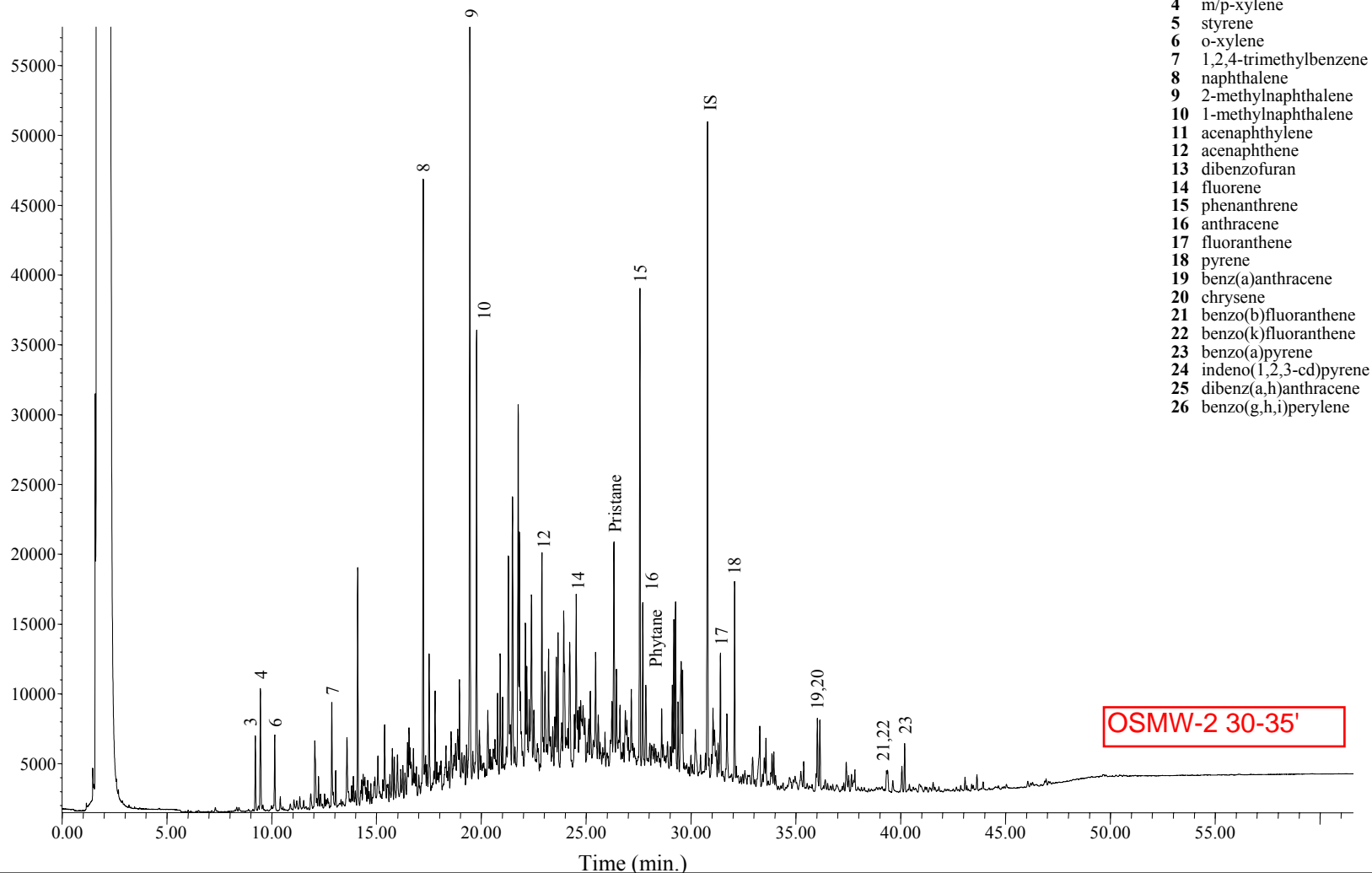
Laboratory ID: HC080209-01DUP

Method: EPA 8100M

GC/FID Fingerprint

App Page 34 of 749

C021405.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/14/2008

IS - 5-a-androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0802315-002D

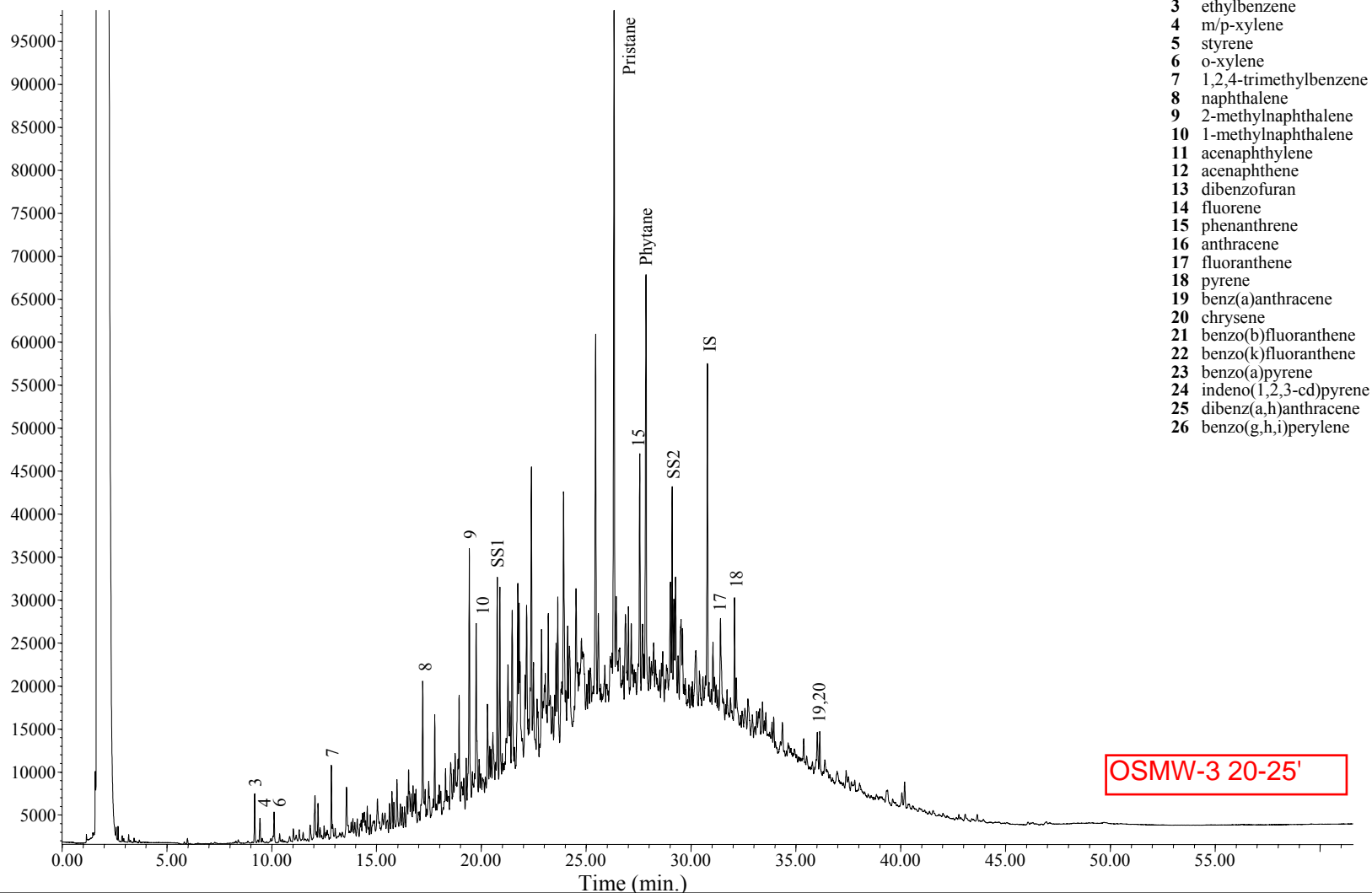
Laboratory ID: HC080209-02-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 35 of 749

C021311.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/14/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

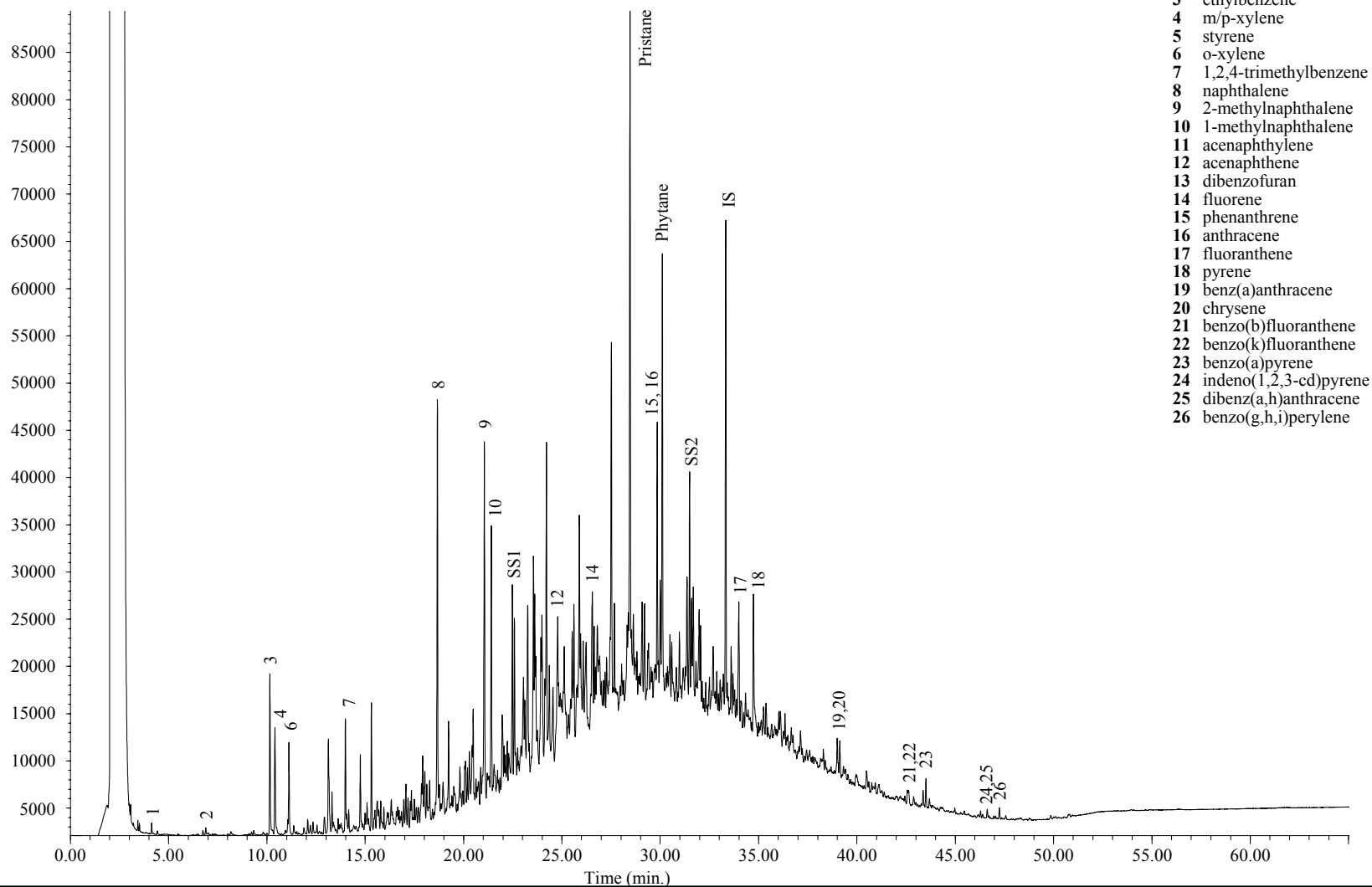
Field ID: 0802315-003D

Laboratory ID: HC080209-03

Method: EPA 8100M

GC/FID Fingerprint

C111111.D\FID2B



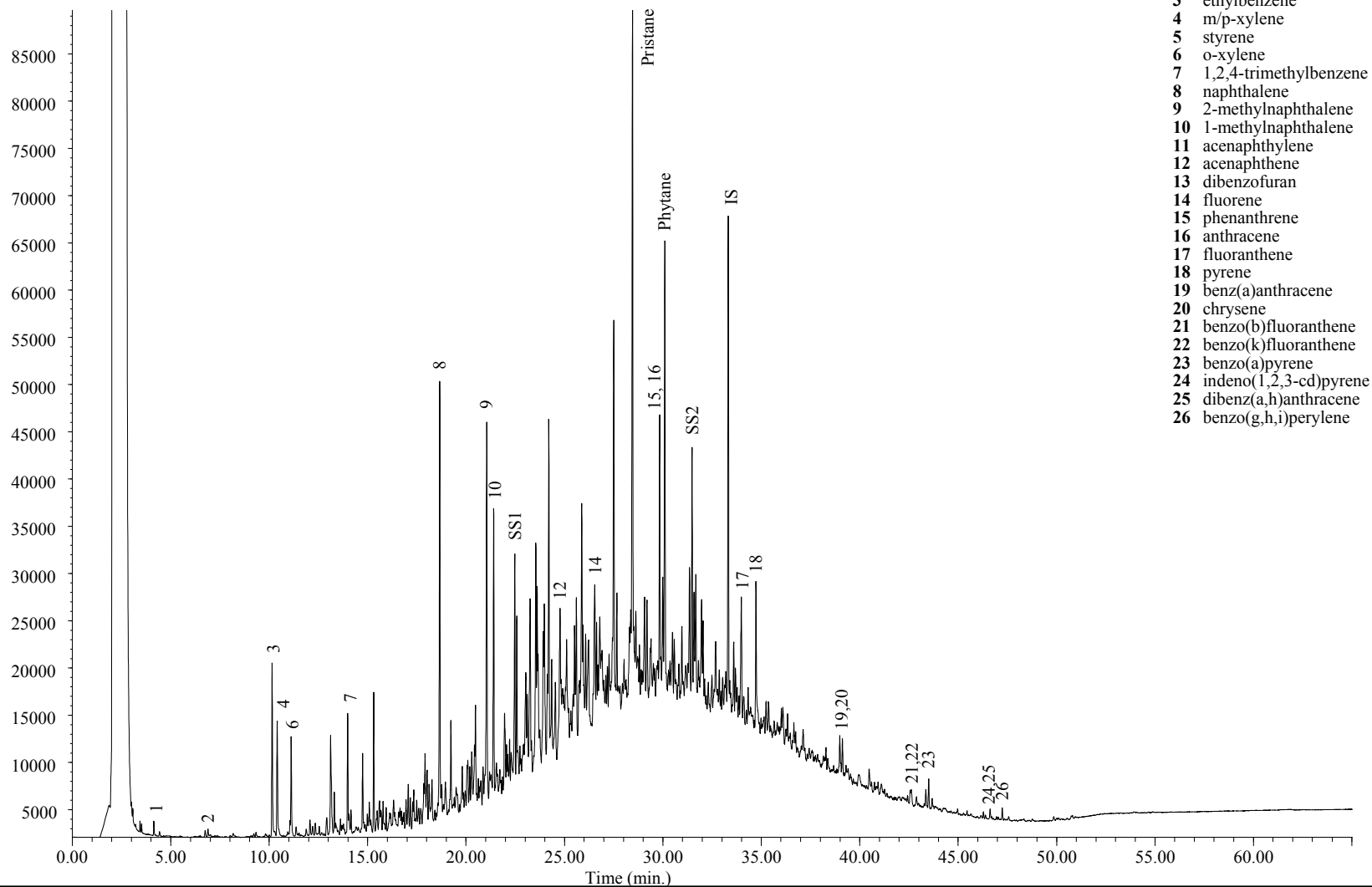
Extraction Date: 11/05/08
Analysis Date: 11/12/2008

IS – 5 α -androstane
 SS1 – 2-fluorobiphenyl
 SS2 – o-terphenyl

Field ID: HISB – 110/20-25
Laboratory ID: HC081104-02
Method: EPA 8100M

GC/FID Fingerprint

C111112.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

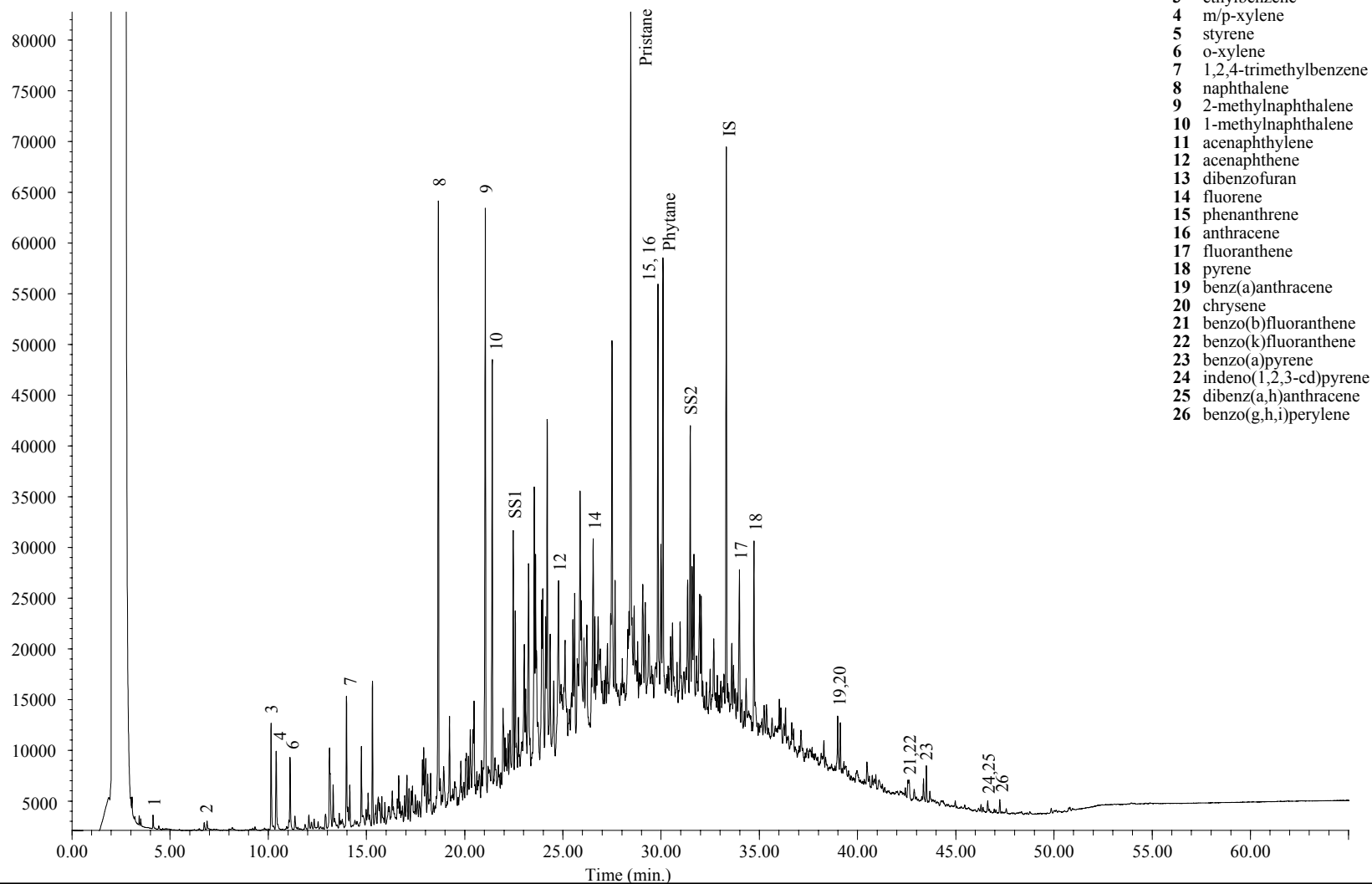
Field ID: HISB – 110/20-25

Laboratory ID: HC081104-02DUP

Method: EPA 8100M

GC/FID Fingerprint

C111113.D\FID2B



Extraction Date: 11/05/08
Analysis Date: 11/12/2008

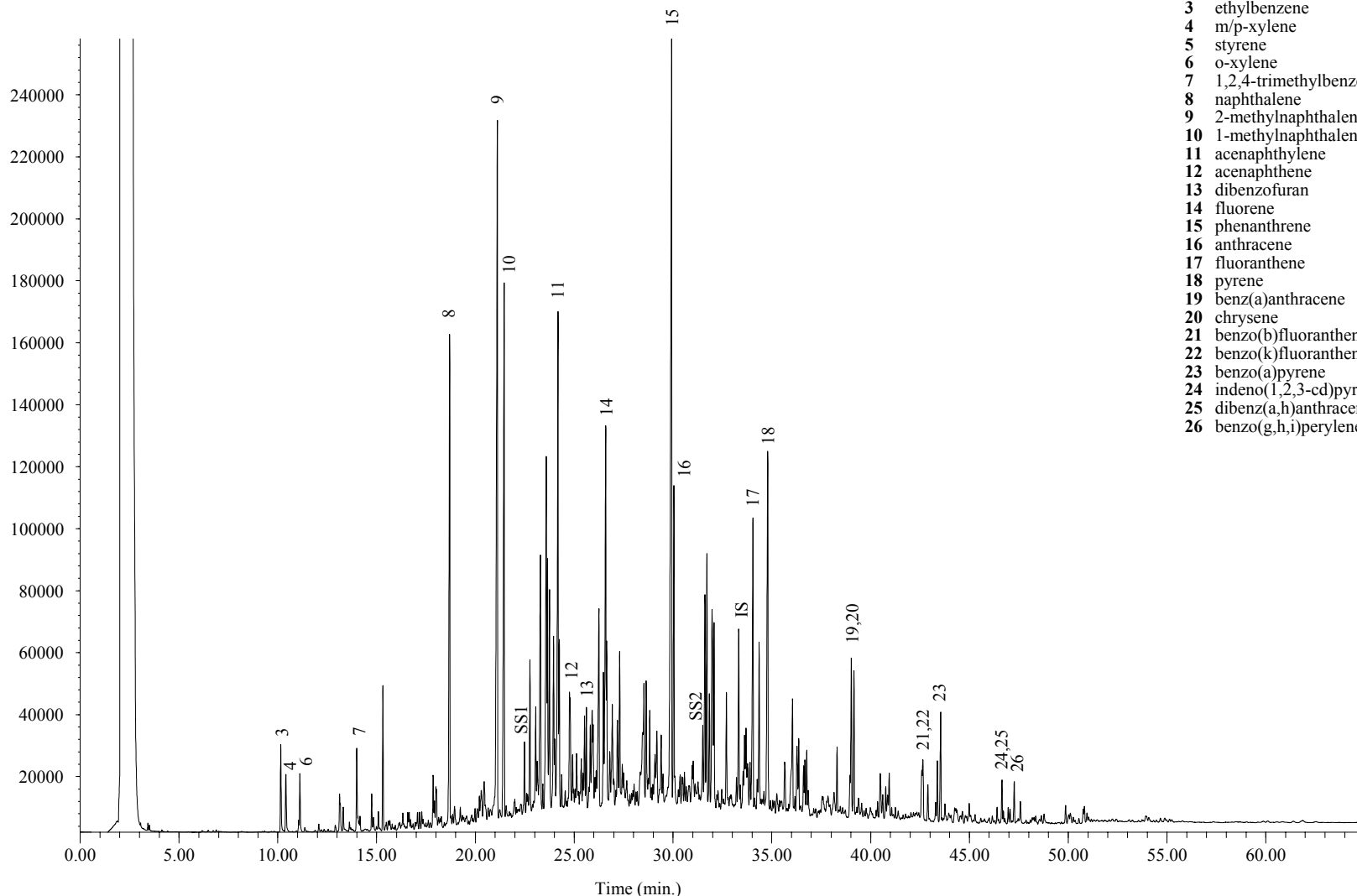
IS – 5 α -androstane
 SS1 – 2-fluorobiphenyl
 SS2 – o-terphenyl

Field ID: HISB – 110/25-29
Laboratory ID: HC081104-03
Method: EPA 8100M

GC/FID Fingerprint

C111117.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

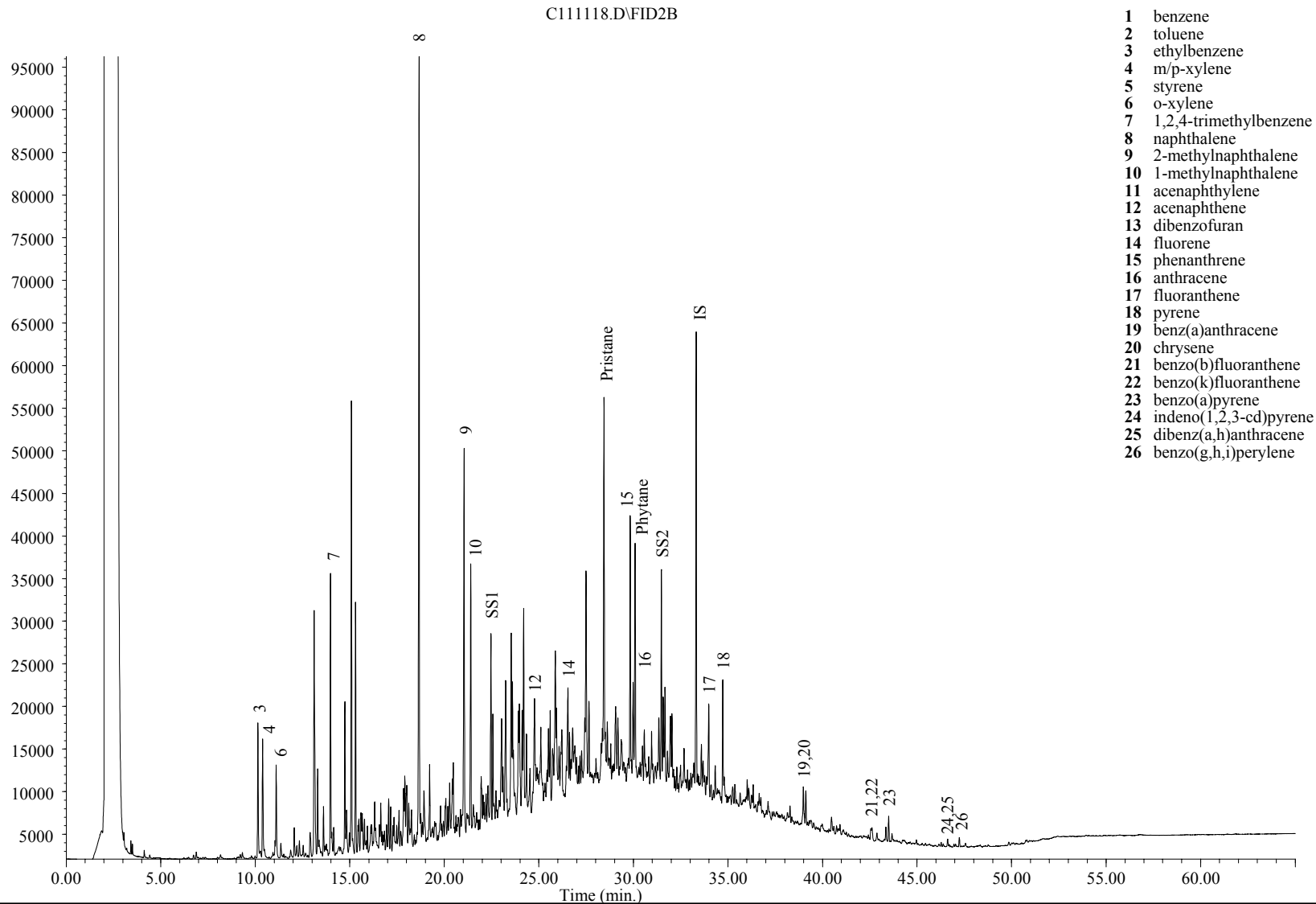
Field ID: HISB – 110/29-30

Laboratory ID: HC081104-04

Method: EPA 8100M

GC/FID Fingerprint

C111118.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS - 5 α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

Field ID: HISB - 111/20-25

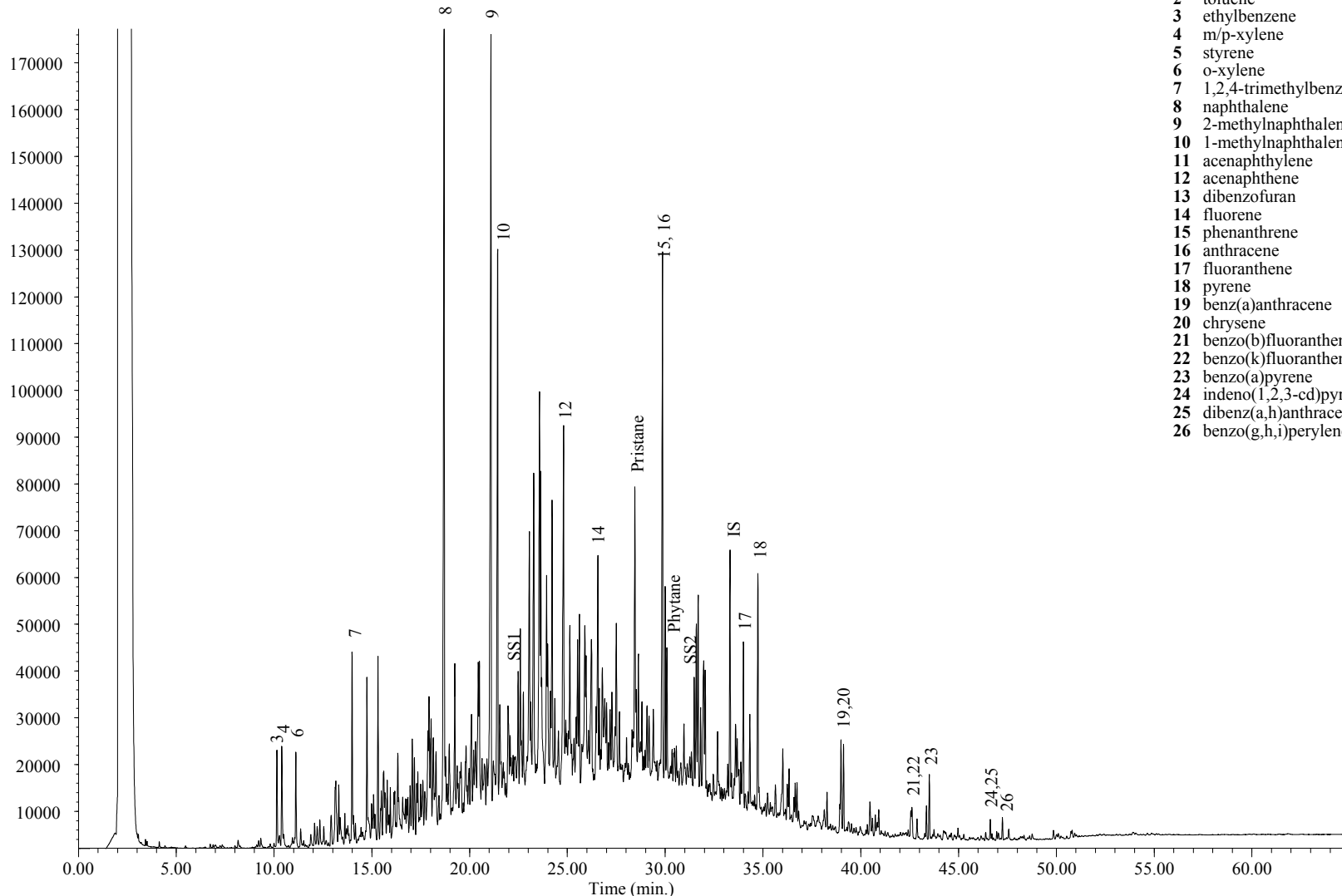
Laboratory ID: HC081104-05

Method: EPA 8100M

GC/FID Fingerprint

C111119.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 111/30-35

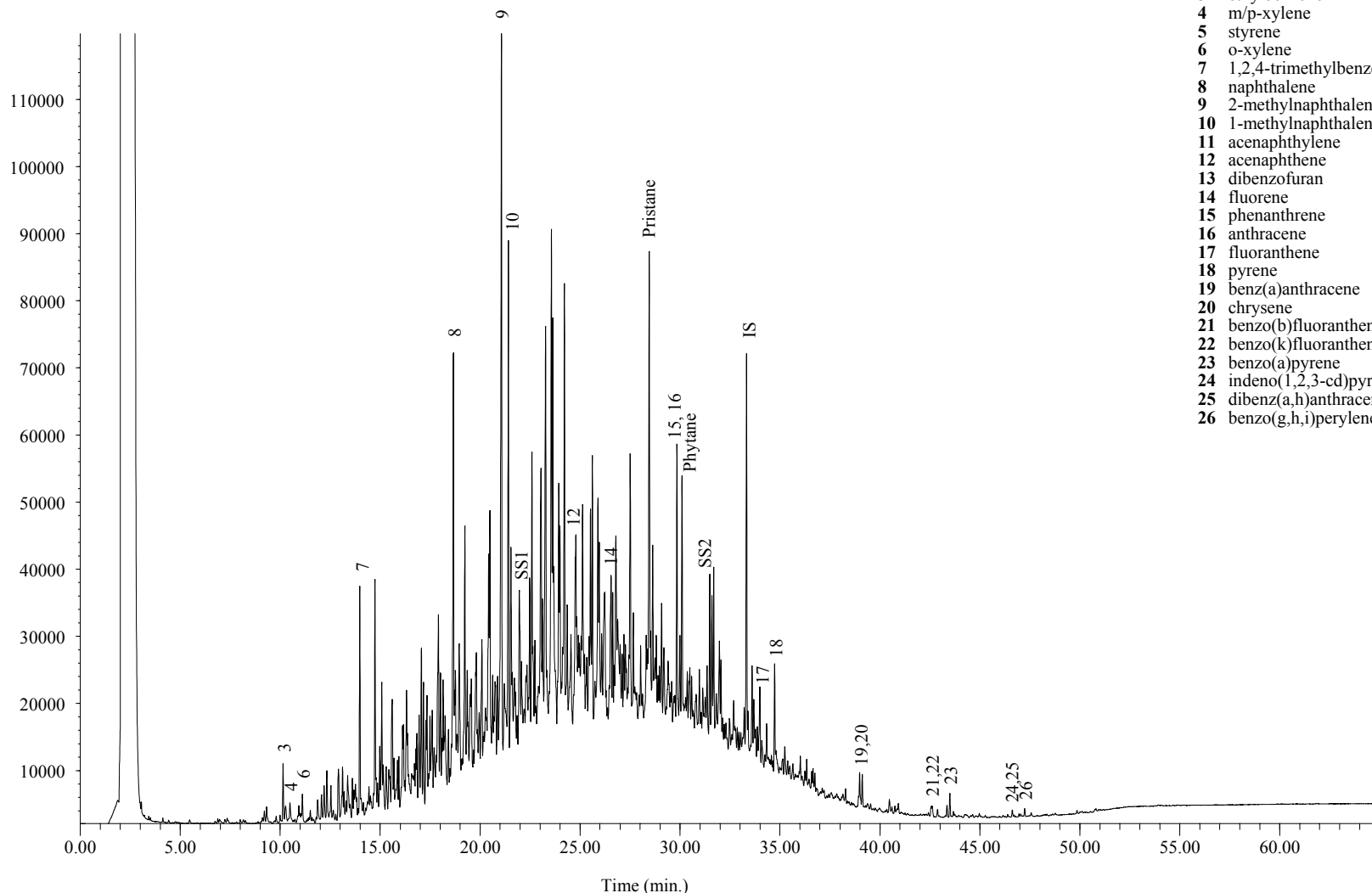
Laboratory ID: HC081104-06

Method: EPA 8100M

GC/FID Fingerprint

C111120.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 112/25-30

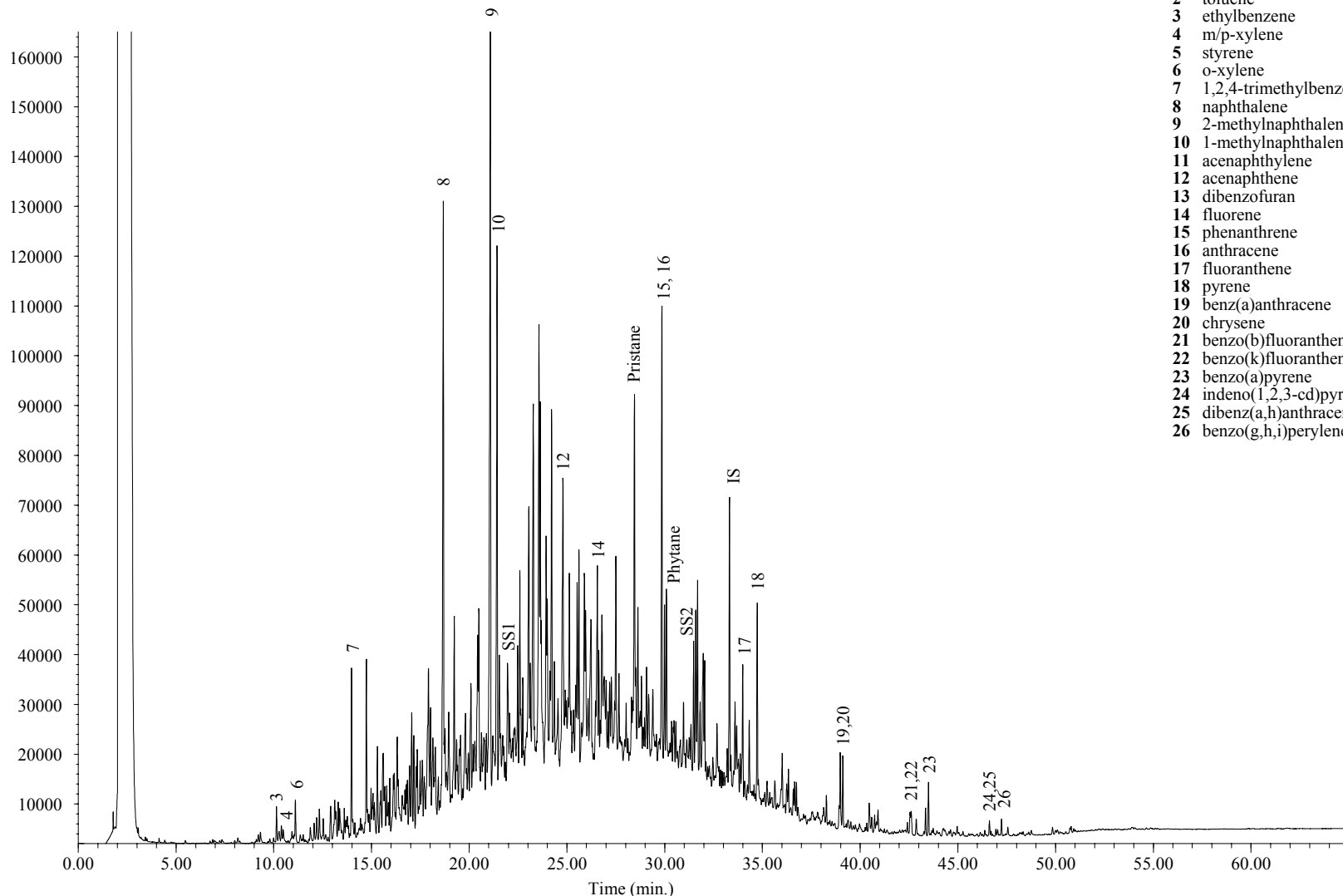
Laboratory ID: HC081104-07

Method: EPA 8100M

GC/FID Fingerprint

C111121.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

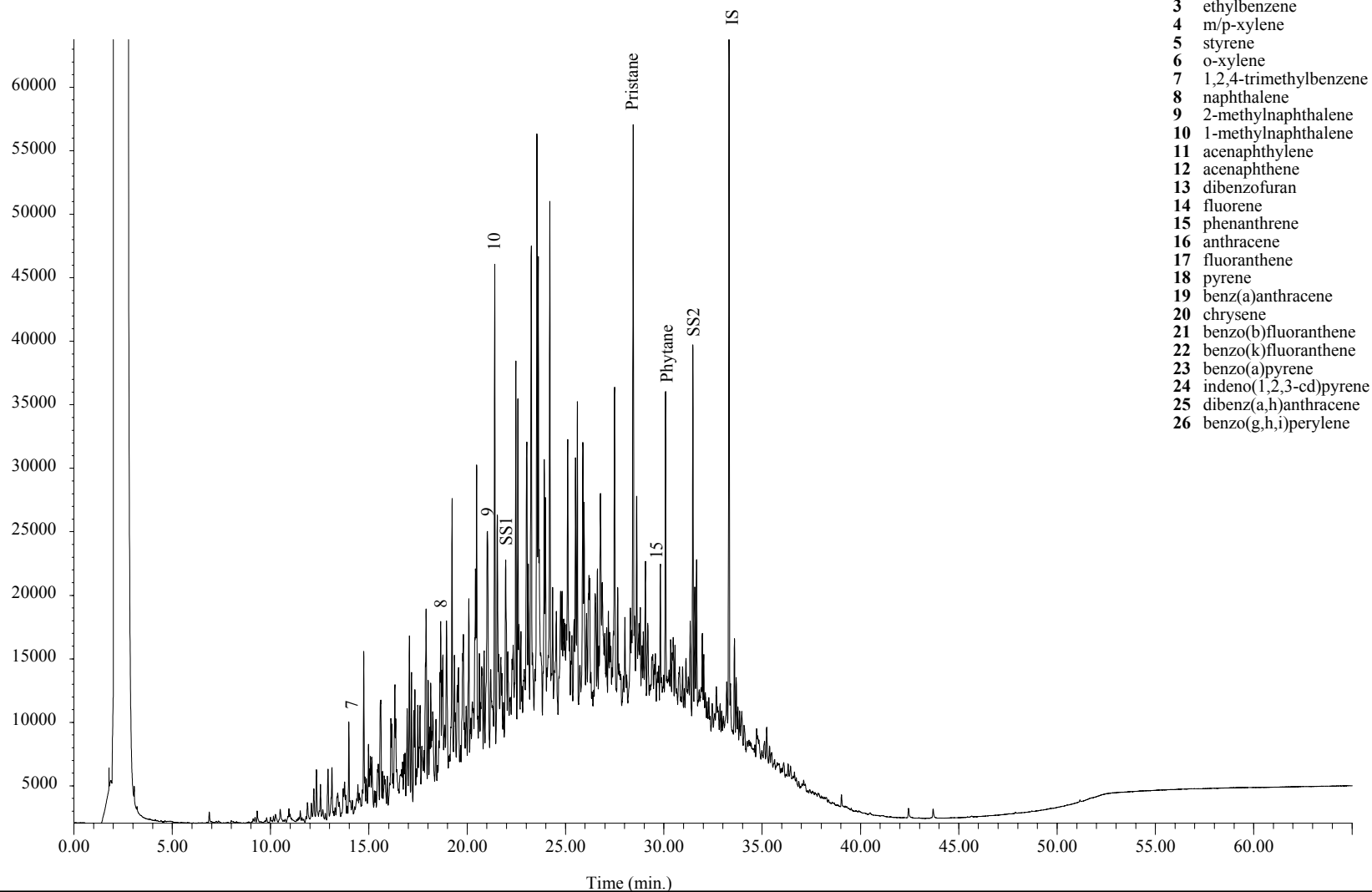
Field ID: HISB – 112/32-35

Laboratory ID: HC081104-08

Method: EPA 8100M

GC/FID Fingerprint

C111122.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS - 5 α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

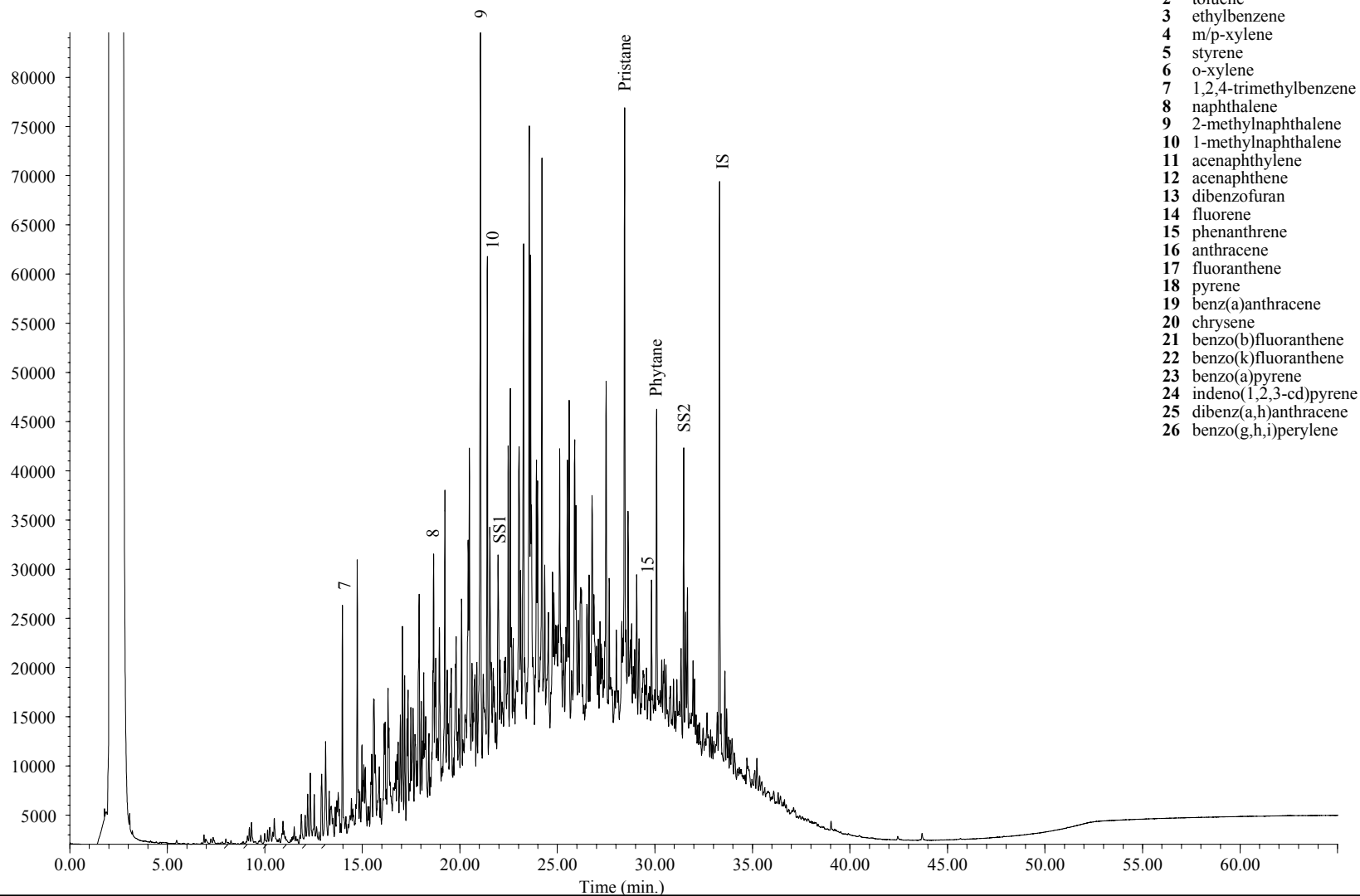
Field ID: HISB - 113/25-30

Laboratory ID: HC081104-09

Method: EPA 8100M

GC/FID Fingerprint

C111123.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

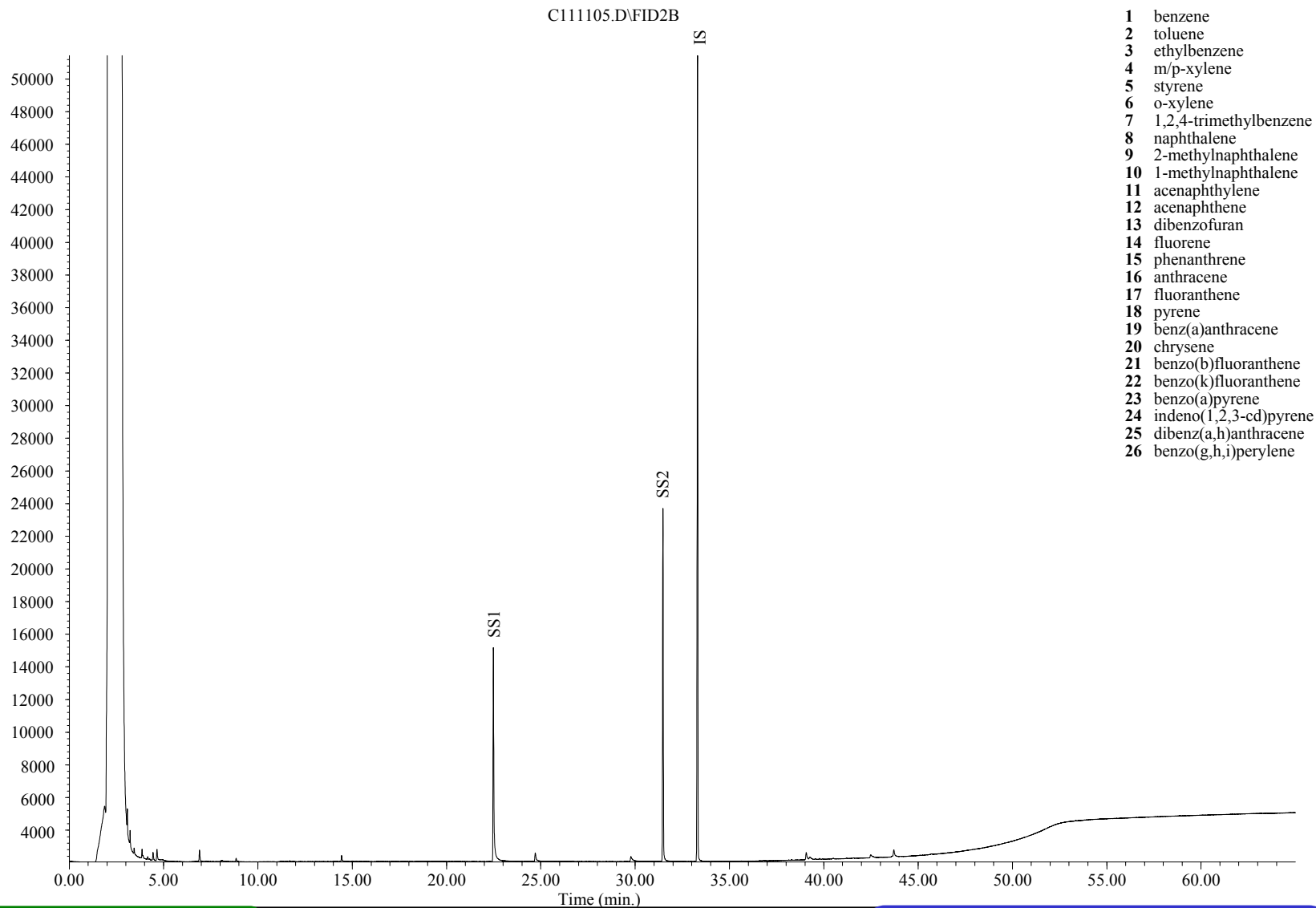
Field ID: HISB – 113/30-35

Laboratory ID: HC081104-10

Method: EPA 8100M

GC/FID Fingerprint

C111105.D\FID2B



Extraction Date: 11/05/2008

Analysis Date: 11/11/2008

IS – 5 α -androsterone

SS1 – 2-fluorobiphenyl

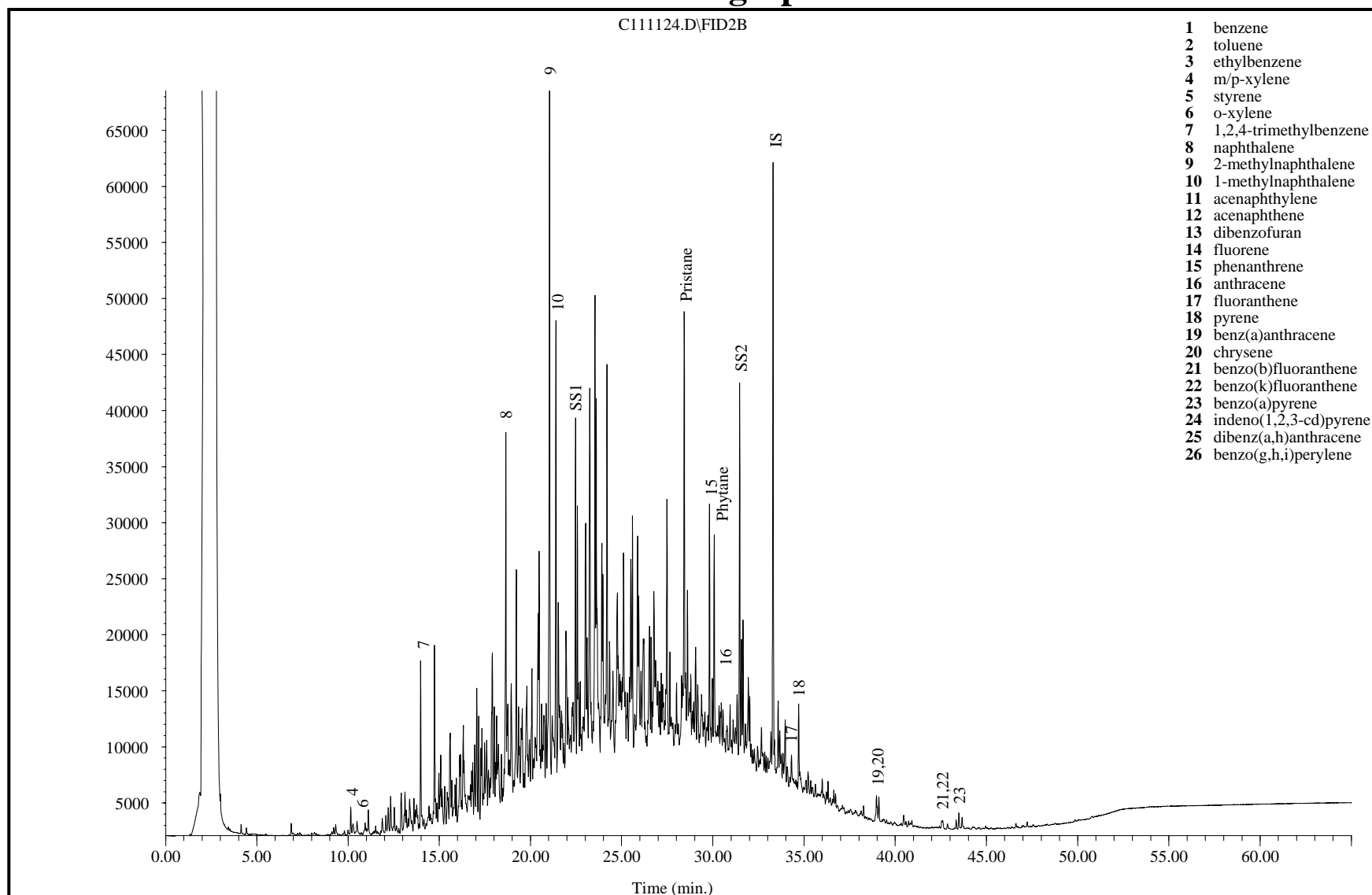
SS2 – o-terphenyl

Field ID: Soil Blank

Laboratory ID: QC081105-SB

Method: EPA 8100M

GC/FID Fingerprint



Extraction Date: 11/11/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

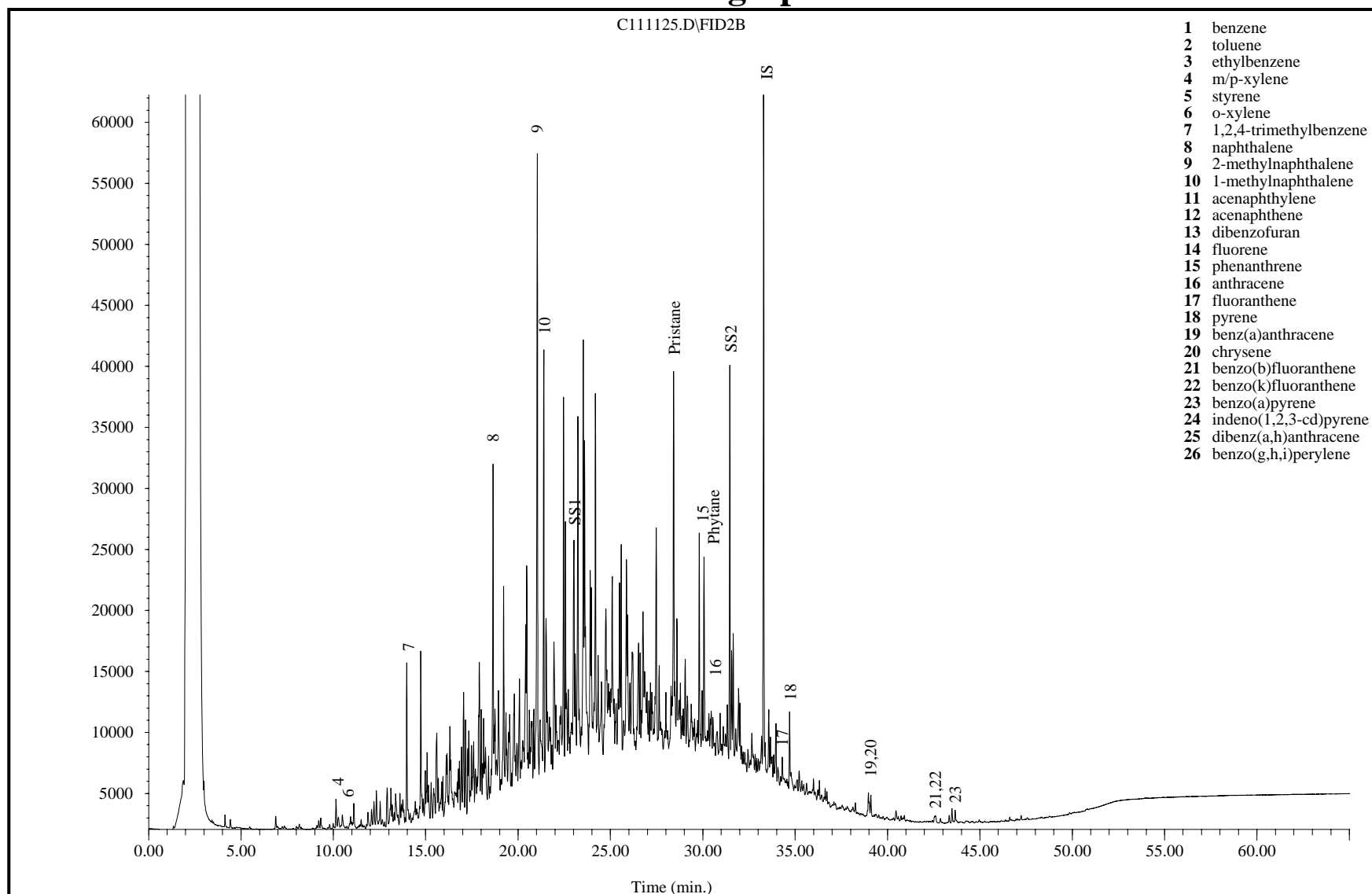
SS2 – o-terphenyl

Field ID: HISB -112/TW/Product

Laboratory ID: HC081107-03

Method: EPA 8100M

GC/FID Fingerprint



Extraction Date: 11/11/08
Analysis Date: 11/12/2008

IS – 5 α -androstane
SS1 – 2-fluorobiphenyl
SS2 – o-terphenyl

Field ID: HISB -112/TW/Product
Laboratory ID: HC081107-03DDUP
Method: EPA 8100M

Form 1

CLIENT SAMPLE NO.

GS-F-1

DGP53/S-1/0-4

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS014Matrix: (soil/water) SoilLab Sample ID: 0714636-006ESample wt/vol: 15 (g/mL) GLab File ID: FID015.rawLevel: (low/med) LOWDate Received: 12/27/2007% Moisture: not dec. 10.5Date Extracted: 12/28/2007GC Column: R-35 ID: .53 (mm)Date Analyzed: 1/5/2008Extract Volume: 1000 (μ l)Dilution Factor: 1.00Injection Volume: 1 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Petroleum Hydrocarbons C10-C45 (approx	320		E

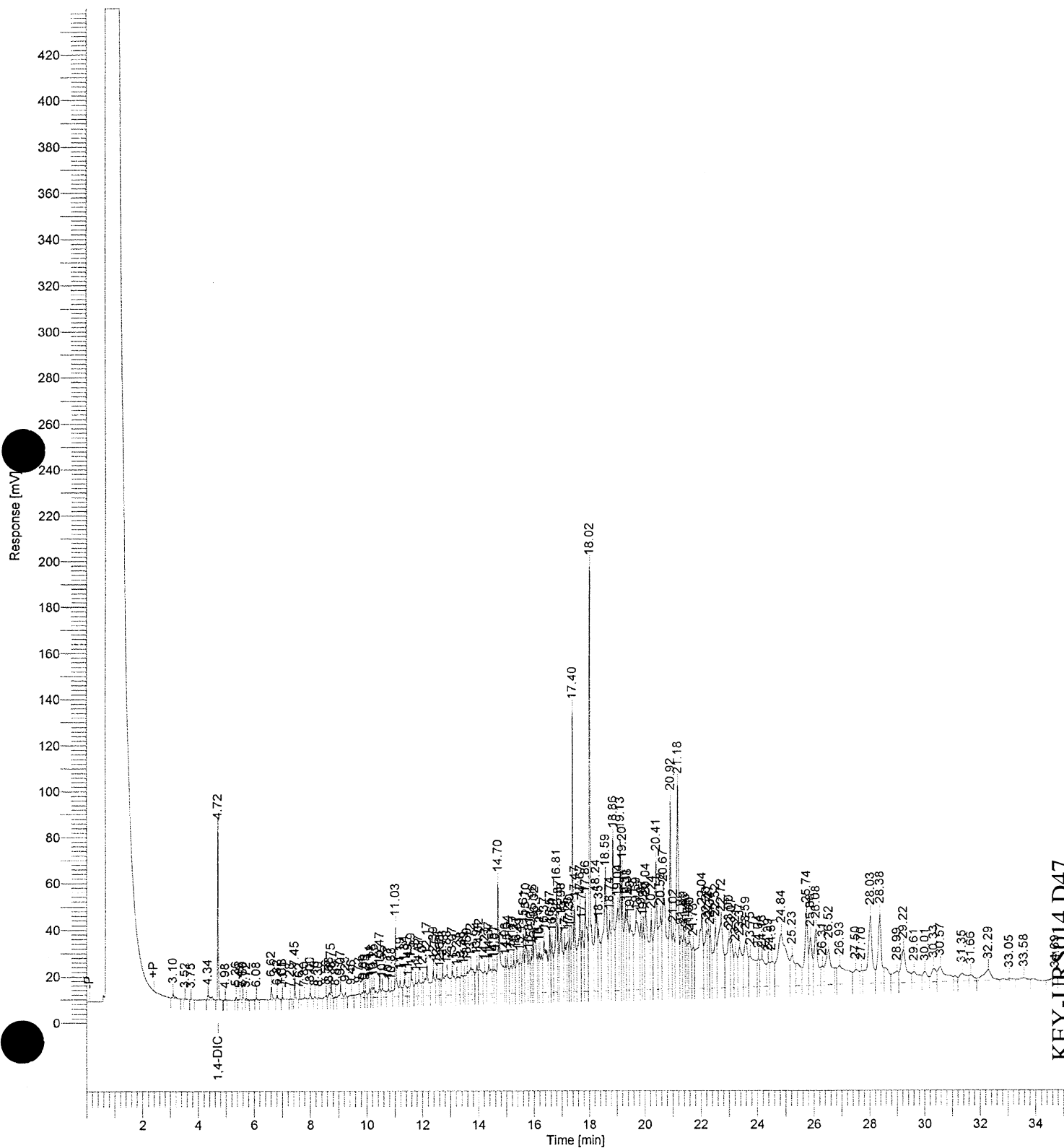
FORM I VOA

SW8015M

KEY-URS014 D42

Chromatogram

Sample Name : 0714636-006E Sample #: GSF1 Page 1 of 1
FileName : S:\GC\GC-3 NPD-FID\Fid\2008\01-2008\FID015.raw
Date : 1/8/2008 5:28:15 PM Time of Injection: 1/5/2008 2:23:36 AM
Time : 0.00 min End Time : 35.01 min Low Point : 0.00 mV High Point : 440.00 mV
Plot Offset: 0.00 mV Plot Scale: 440.0 mV



KEY-URS014 D47

Form 1

CLIENT SAMPLE NO.

GS-F-2

DGP 55/S-1/0-5

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS014
 Matrix: (soil/water) Soil Lab Sample ID: 0714636-007E
 Sample wt/vol: 15 (g/mL) G Lab File ID: FID013.raw
 Level: (low/med) LOW Date Received: 12/27/2007
 % Moisture: not dec. 32.2 Date Extracted: 12/28/2007
 GC Column: R-35 ID: .53 (mm) Date Analyzed: 1/5/2008
 Extract Volume: 1000 (μ l) Dilution Factor: 1.00
 Injection Volume: 1 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Petroleum Hydrocarbons C10-C45 (approx	440		

FORM I VOA

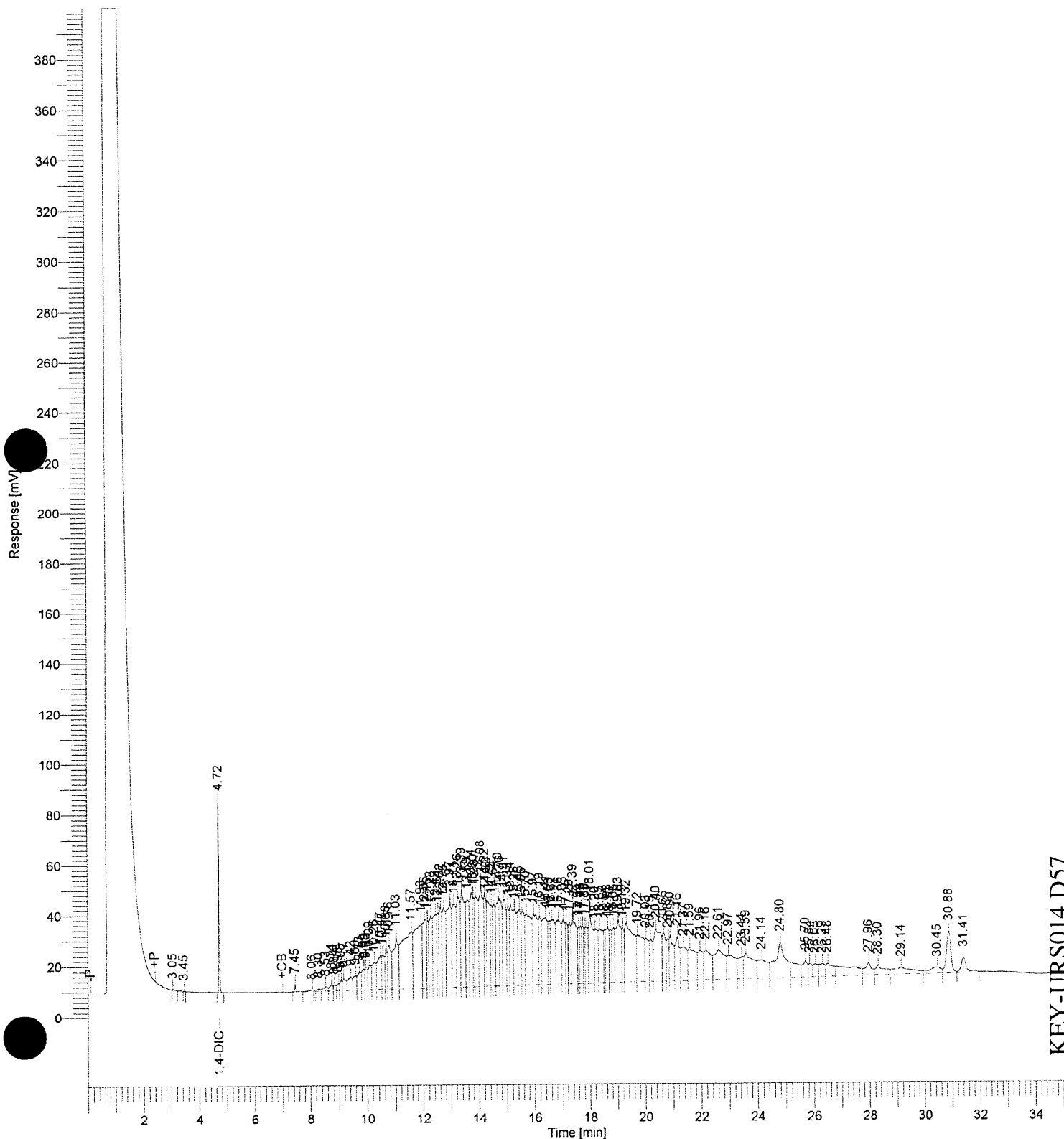
SW8015M

KEY-URS014 D53

Chromatogram

App Page 39 of 749

Sample Name : 0714636-007E Sample #: GSF2 Page 1 of 1
 FileName : S:\GC\GC-3 NPD-FID\Fid\2008\01-2008\FID013.raw
 Date : 1/24/2008 4:37:07 PM Time of Injection: 1/5/2008 12:56:59 AM
 Sample : dro-1a3-35
 Start Time : 0.00 min End Time : 35.01 min Low Point : 0.00 mV High Point : 400.00 mV
 Plot Offset: 0.00 mV Plot Scale: 400.0 mV



Form 1

CLIENT SAMPLE NO.

GS-F-3

DGP56/S-1/0-4

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS014Matrix: (soil/water) SoilLab Sample ID: 0714636-008ESample wt/vol: 15 (g/mL) GLab File ID: FID009.rawLevel: (low/med) LOWDate Received: 12/27/2007% Moisture: not dec. 23.8Date Extracted: 12/28/2007GC Column: R-35 ID: .53 (mm)Date Analyzed: 1/4/2008Extract Volume: 1000 (μ l)Dilution Factor: 1.00Injection Volume: 1 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Petroleum Hydrocarbons C10-C45 (approx	74		

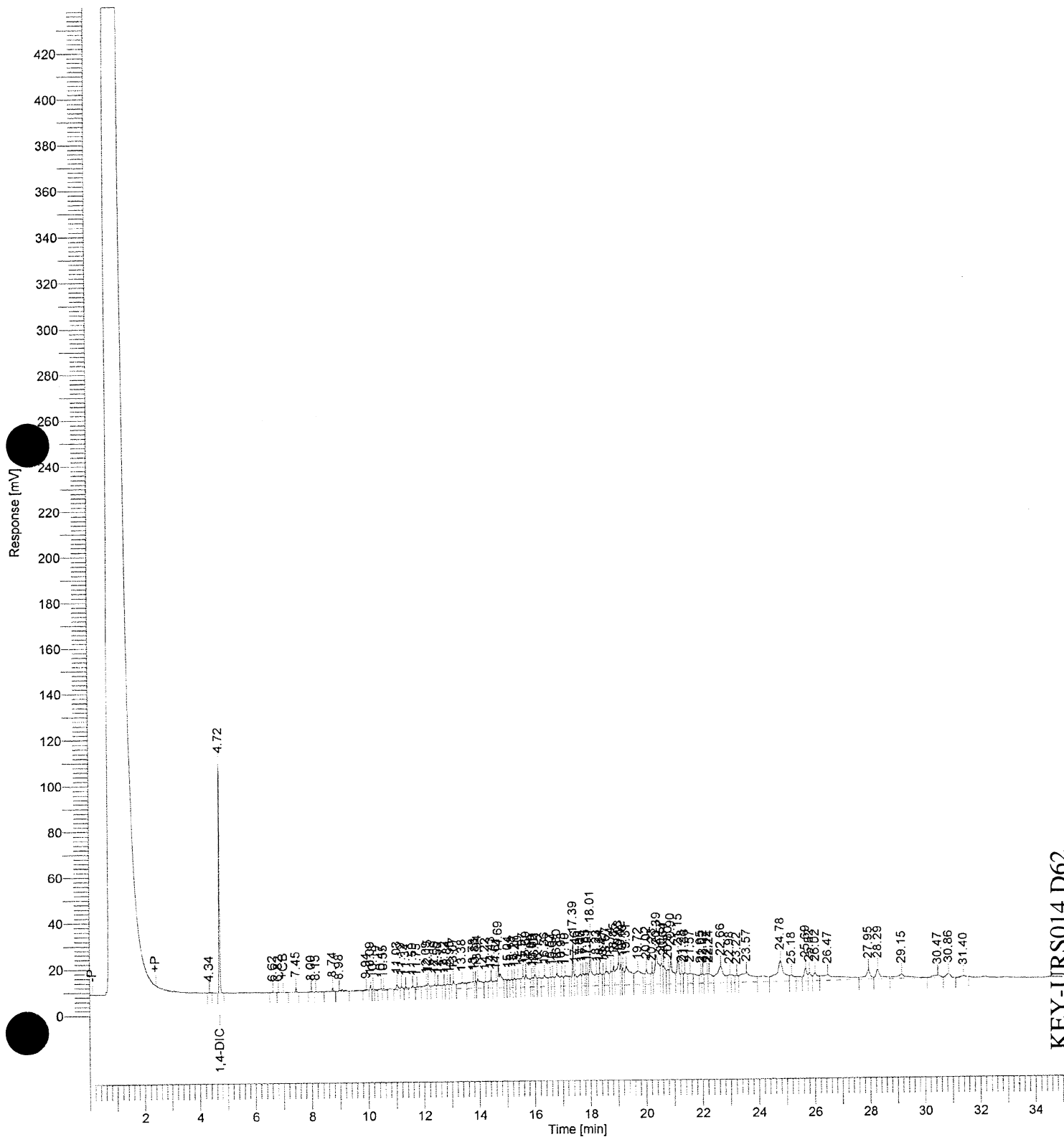
FORM I VOA

SW8015M

KEY-URS014 D58

Chromatogram

Sample Name : 0714636-008E Sample #: GSF3 Page 1 of 1
FileName : S:\GC\GC-3 NPD-FID\Fid\2008\01-2008\FID009.raw
Date : 1/8/2008 5:28:01 PM
Method : dro-1a3-35 Time of Injection: 1/4/2008 10:04:14 PM
Sample Name : 0.00 min End Time : 35.01 min Low Point : 0.00 mV High Point : 440.00 mV
Plot Offset: 0.00 mV Plot Scale: 440.0 mV



KEY-URS014 D62

**HEMPSTEAD INTERSECTION STREET
FORMER MANUFACTURED GAS PLANT SITE**

INDEX OF CHEMICAL DATA TABLES

Table No.	Matrix	Analytical Parameter
E-1	Surface Soil	Polycyclic Aromatic Hydrocarbons (PAHs)
E-2	Surface Soil	RCRA Metals and Cyanide
E-3	Surface Soil	Total Phenols
E-4	Subsurface Soil	Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-5	Subsurface Soil	Polycyclic Aromatic Hydrocarbons (PAHs)
E-6	Subsurface Soil	RCRA Metals and Cyanide
E-7	Subsurface Soil	Total Phenols
E-8	Subsurface Soil	Volatile Organic Compounds (VOCs)
E-9	Subsurface Soil	Semivolatile Organic Compounds (SVOCs)
E-10	Subsurface Soil	Target Analyte List (TAL) Metals
E-11	Subsurface Soil	Pesticides and Polychlorinated Biphenyls (PCBs)
E-12	Subsurface Soil	Petroleum Fingerprint/Total Petroleum Hydrocarbons (TPH)
E-13	Test Pit Soil	Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-14	Test Pit Soil	Polycyclic Aromatic Hydrocarbons (PAHs)
E-15	Test Pit Soil	RCRA Metals and Cyanide
E-16	Test Pit Soil	Total Phenols
E-17	Test Pit Soil	Volatile Organic Compounds (VOCs)
E-18	Test Pit Soil	Semivolatile Organic Compounds (SVOCs)
E-19	Test Pit Soil	Target Analyte List (TAL) Metals
E-20	Test Pit Soil	Pesticides and Polychlorinated Biphenyls (PCBs)
E-21	Monitoring Well Groundwater	Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-22	Monitoring Well Groundwater	Polycyclic Aromatic Hydrocarbons (PAHs)
E-23	Monitoring Well Groundwater	RCRA Metals, Iron, Manganese and Cyanide
E-24	Monitoring Well Groundwater	Free Cyanide
E-25	Monitoring Well Groundwater	Petroleum Fingerprint/Total Petroleum Hydrocarbons (TPH)
E-26	GeoProbe/Temporary Well Groundwater	Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-27	GeoProbe/Temporary Well Groundwater	Polycyclic Aromatic Hydrocarbons (PAHs)
E-28	GeoProbe/Temporary Well Groundwater	Volatile Organic Compounds (VOCs)
E-29	GeoProbe/Temporary Well Groundwater	Semivolatile Organic Compounds (SVOCs)
E-30	Soil Vapor	Benzene, Toluene, Ethylbenzene and Xylene (BTEX) and Naphthalene
E-31	Ambient Air	Benzene, Toluene, Ethylbenzene and Xylene (BTEX) and Naphthalene
E-32	Ambient Air	Volatile Organic Compounds (VOCs) and Naphthalene
E-33	Surface Soil	Lead
E-34	Test Pit Soil	Arsenic and Total Cyanide
E-35	Subsurface Soil	Volatile Organic Compounds (VOCs) including Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-36	Subsurface Soil	Polycyclic Aromatic Hydrocarbons (PAHs)
E-37	Monitoring Well Groundwater	Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-38	Monitoring Well Groundwater	Polycyclic Aromatic Hydrocarbons (PAHs)
E-39	Monitoring Well Groundwater	Geochemical Parameters
E-40	GeoProbe Groundwater	Volatile Organic Compounds (VOCs) including Benzene, Toluene, Ethylbenzene and Xylene (BTEX)
E-41	GeoProbe Groundwater	Semivolatile Organic Compounds (SVOCs) including Polycyclic Aromatic Hydrocarbons (PAHs)

TABLE E-25

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE REMEDIAL INVESTIGATION
 MONITORING WELL GROUND WATER SAMPLE RESULTS
 FUEL FINGERPRINT* / TOTAL PETROLEUM HYDROCARBONS (TPHs)

Page: 1 of 1

Date: 06/24/2002

PERIOD: From 12/11/2001 thru 12/18/2001 - Inclusive

SAMPLE TYPE: Water

CONSTITUENT	SITE SAMPLE ID DATE	HIMW-01S MW01S 12/17/2001	HIMW-06S MW06S 12/18/2001	HIMW-07S MW07S 12/18/2001	HIMW-10S MW10S 12/17/2001
TPH	(mg/l)	330000	540000	770000	890000
<p>mg/l: milligram/liter Data qualifiers defined in Glossary *: The fuel fingerprint analysis identified resolved and unresolved peaks typical of a coal tar in groundwater samples HIMW-01S, HIMW-06S and HIMW07S and #2 diesel fuel in groundwater sample HIMW-10S.</p>					
					[]: Exceeds SCG —: Not analyzed

TABLE E-12

Page: 1 of 1
Date: 06/24/2002HEMPSTEAD INTERSECTION STREET FORMER MGP SITE REMEDIAL INVESTIGATION
SUBSURFACE SOIL SAMPLE RESULTS
PETROLEUM FINGERPRINT* / TOTAL PETROLEUM HYDROCARBONS (TPH)

PERIOD: From 08/10/2000 thru 10/25/2000 - Inclusive

SAMPLE TYPE: Soil

CONSTITUENT	SITE	HIMW-11	HISB-41
	SAMPLE ID	HIMW-11 (16-18)	HISB-41 (26-28)
	DATE	10/25/2000	08/10/2000
	DEPTH (ft)	16.00	26.00
TPH	(mg/kg)	8500	7200
mg/kg: milligram/kilogram			
*: The fuel fingerprint analysis identified resolved and unresolved peaks typical of diesel fuel in soil samples HIMW-11 and HISB-41.			
---Not analyzed			

INTEGRATED ANALYTICAL LABORATORIES, LLC.

GC FINGERPRINT ANALYSIS

Client/Project: URS Corp/Kevspan - Hempstead

Date Received: 4/17/07

Date Analyzed: 4/20/07

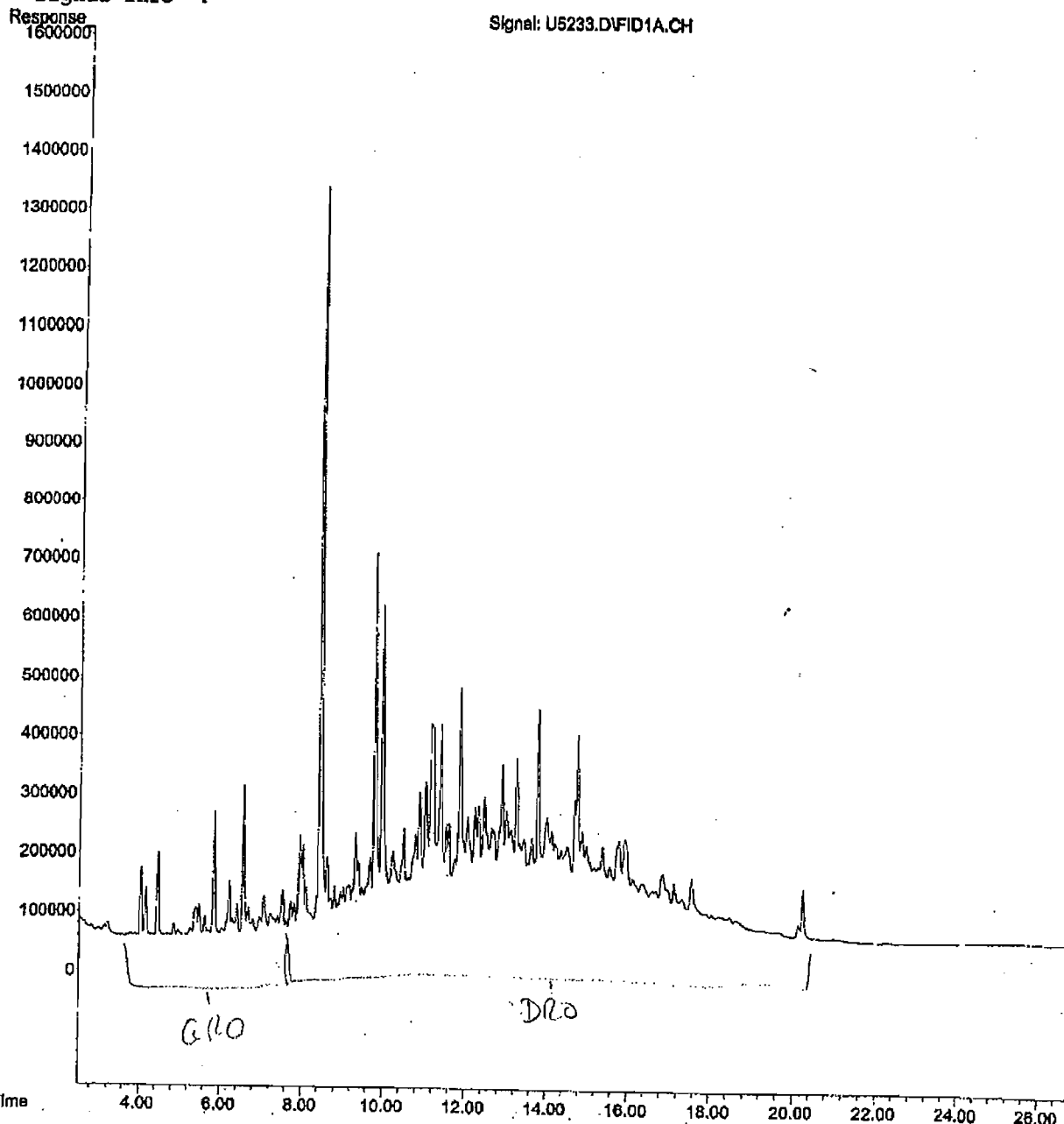
Lab ID	Client ID	RESULTS
03728-008	HIMW-11S	This sample closely approximates but is not an exact match of Fuel Oil Standard #2. Variations in the sample as compared to the standards may be attributed to weathering, evaporation, contamination and/or degradation.

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\04-20-07\U5233.D Vial: 7
Acq On : 20 Apr 2007 11:22 Operator: MJ
Sample : HIMW-11S,03728-008,A,500ml,100,04/19/07, Inst : GC_U
Misc : URS-WAYNE/KEYSPAN_,04/17/07,04/17/07,10 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 20 13:08 2007 Quant Results File: UGRO0416.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0416.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 17 10:28:47 2007
Response via : Multiple Level Calibration
DataAcq Meth : UGRO0416.M

Volume Inj. :
Signal Phase :
Signal Info :



U5233.D UGRO0416.M

Fri Apr 20 15:48:47 2007

GC_U

Page 0090

Quantitation Report

(QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\04-20-07\U5232.D

Acq On : 20 Apr 2007 10:49

Sample : DRO/GRO_IAS_2814,1000_PPM

Misc : NA,NA,NA,1

IntFile : autoint1.e

Vial: 3

Operator: MJ

Inst : GC_U

Multiplr: 1.00

Quant Time: Apr 20 11:19 2007 Quant Results File: UGRO0416.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0416.M (Chemstation Integrator)

Title :

Last Update : Tue Apr 17 10:28:47 2007

Response via : Multiple Level Calibration

DataAcq Meth : UGRO0416.M

Volume Inj. :

Signal Phase :

Signal Info :

Response

Signal: U5232.D\FID1A.CH

1300000

1200000

1100000

1000000

900000

800000

700000

600000

500000

400000

300000

200000

100000

0

GRO C6 - C10 → RT = 2.7 - 5.9 mins

DRO C10 - C28 → RT = 5.99 → 21.9 mins

Time

4.00

6.00

8.00

10.00

12.00

14.00

16.00

18.00

20.00

22.00

24.00

26.00

U5232.D UGRO0416.M

Fri Apr 20 15:48:35 2007

GC_U

Page: 2

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\04-20-07\U5232.D

Vial: 3

Acq On : 20 Apr 2007 10:49

Operator: MJ

Sample : DRO/GRO_IAS_2814,1000_PPM

Inst : GC_U

Misc : NA,NA,NA,1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Apr 20 11:19 2007 Quant Results File: UGRO0416.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0416.M (Chemstation Integrator)

Title :

Last Update : Tue Apr 17 10:28:47 2007

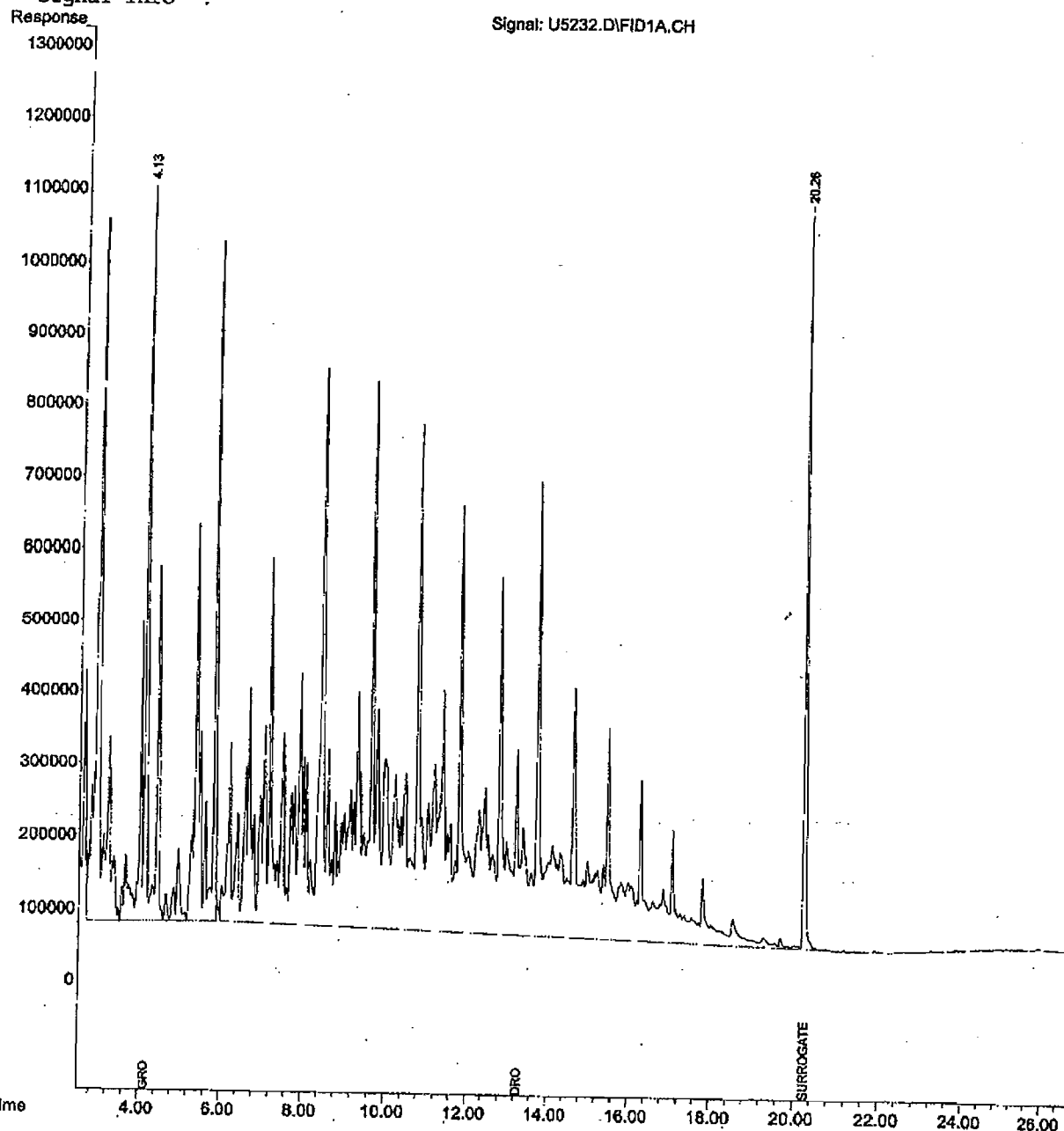
Response via : Multiple Level Calibration

DataAcq Meth : UGRO0416.M

Volume Inj. :

Signal Phase :

Signal Info :



U5232.D UGRO0416.M

Fri Apr 20 15:48:35 2007

GC_U

Page 20092

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\04-20-07\U5232.D

Vial: 3

Acq On : 20 Apr 2007 10:49

Operator: MJ

Sample : DRO/GRO_IAS_2814,1000_PPM

Inst : GC_U

Misc : NA,NA,NA,1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Apr 20 11:17:05 2007 Quant Results File: UGRO0416.RES

Quant Method : C:\MSDCHEM\1\METHODS\UGRO0416.M (Chemstation Integrator)

Title :

Last Update : Tue Apr 17 10:28:47 2007

Response via : Initial Calibration

DataAcq Meth : UGRO0416.M

Volume Inj. :

Signal Phase :

Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S SURROGATE	20.27f	33690317	95.006 ng
Spiked Amount 100.000		Recovery =	95.01%
Target Compounds			
2) H GRO	4.15	267677974	1032.593 ng
3) H DRO	13.28	917792592	1106.999 ng

(f)=RT Delta > 1/2 Window

U5232.D UGRO0416.M

Fri Apr 20 15:48:33 2007

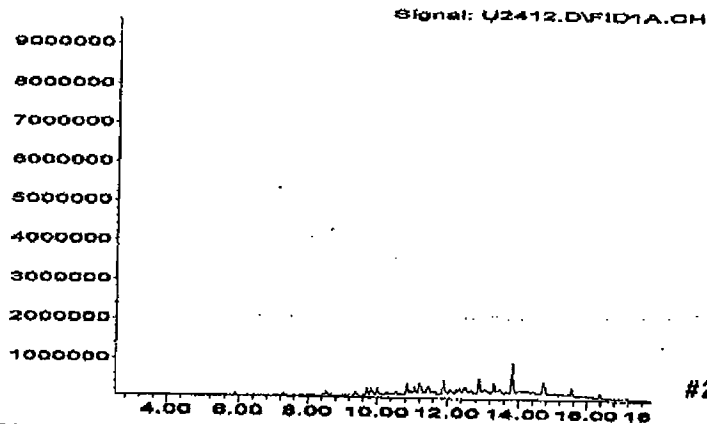
(m)=manual int.

GC_U

Page 0091

#2 Fuel oil

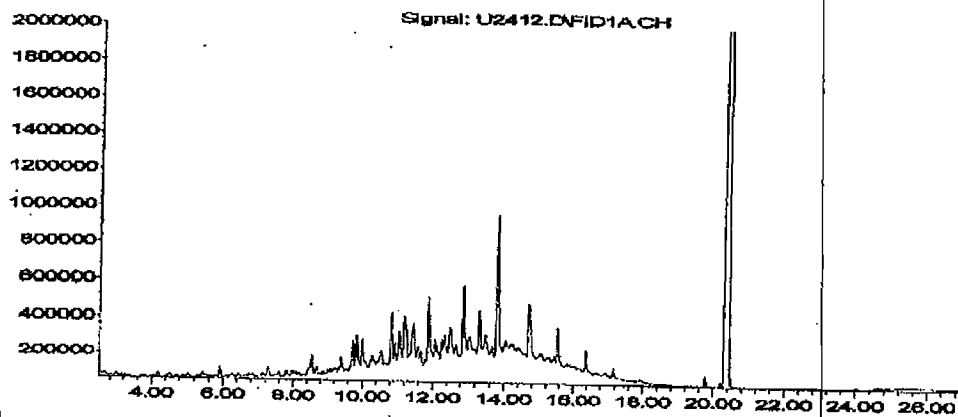
Response



#2 FUEL OIL STANDARD

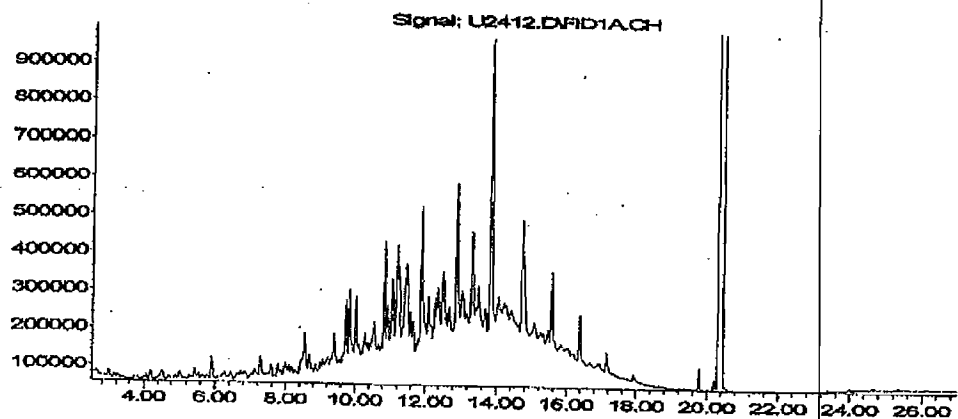
Time

Response



Time

Response



Time

0093

Phone # (973) 361-4252

Fax # (973) 989-5288

INTEGRATED ANALYTICAL LABORATORIES CHAIN OF CUSTODY

273 Franklin Rd

Randolph, NJ 07069

CUSTOMER		REPORTING INFO		Turnaround Time (starts the following day if samples rec'd at lab > 5PM)			
Company: URS CORPORATION		REPORT TO: MIKE AKERBERG		Lab notification is required for RUSH TAT prior to sample arrival. RUSH TAT IS NOT GUARANTEED WITHOUT LAB APPROVAL. RUSH SURCHARGES WILL APPLY IF ABLE TO ACCOMMODATE**			
Address: 201 WILLOWBROOK BLVD		Address:		EMAIL			
City: WAYNE, NJ 07474		Attn: Michael Akerberg					
Telephone #: 973-785-0700		Attn: URS CORP. COM					
Fax #: 973-785-0023		FAX #					
Project Manager: MIKE AKERBERG		INVOICE TO:					
Sample: TT / I.M. / HBS / AL		Address:					
Project Name: KEYSPAN HEMSTEAD		Attn:					
Project Location (State): NY		PO #					
Bottle Order #:							
Quote #:							

SAMPLE INFORMATION

Client ID	Depth	Sampling		Matrix	# containers	IAL #	BT	PI	GC	FIR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Known Hazard: Yes ☒ No ☐ Describe:Conc. Expected: ☒ Low ☐ Med ☐ High

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time will not start until any ambiguities have been resolved.

MDL Req: Old GWQS - 11/05 GWQS - SCC - OTHER (SEE COMMENTS)

Signature/Company	Date	Time	Signature/Company
Relinquished by: Tammy Tralucci	4/17/07	1445	Received by: Ray Dwyer
Relinquished by: Ray Dwyer	4/17/07	1500	Received by: Ray Dwyer
Relinquished by:			Received by:
Relinquished by:			Received by:
Relinquished by:			Received by:

Comments:

Lab Case #

3728

PAGE: 1 of 1

05/2006

Int'l. O. (20000000)

COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Appendix B

Chains of Custody

for SDG HC081104, HC081107

H2M LABS, INC.

575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

App Page 53 of 749

Page 1 of 1

KEY-URS 039

H2M Client : KEY-URS

Subcontractor:

META Environmental Inc.
49 Clarendon Street

TEL: (617) 923-4662

FAX:

Watertown, Massachusetts 02472

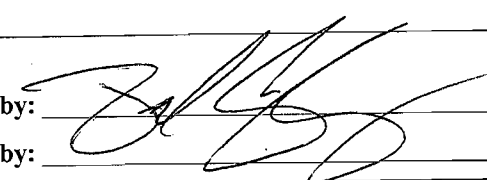
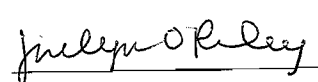
Acct #:

03-Nov-08

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests					
0812791-001C	Soil	10/30/2008	4-OZJAR						H2081104-08
0812791-002C	Soil	10/30/2008	4-OZJAR						-0203
0812791-003C	Soil	10/30/2008	4-OZJAR						-0304
0812791-004C	Soil	10/30/2008	4-OZJAR						-0405
0812791-005C	Soil	10/30/2008	4-OZJAR						-0506
0812791-006C	Soil	10/31/2008	4-OZJAR						-0607
0812791-007C	Soil	10/31/2008	4-OZJAR						-0708
0812791-008C	Soil	10/31/2008 11:27:00 AM	4-OZJAR						-0809
0812791-009C	Soil	10/31/2008 11:35:00 AM	4-OZJAR						-0910

Comments:

Please analyze above samples for GC/MS FINGERPRINT (GC/MS and GC/FID) QUANT/PRODUCT ID CATAGORIZE/SOURCE. If you have any questions please contact Jennifer Aracri at (631)694-3040x1211. Thank you.

Relinquished by: 	Date/Time: 11/3/08 17:45	Received by: 	Date/Time: 11/4/08 11:20 am
Relinquished by: _____	_____	Received by: _____	_____

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

22212

EXTERNAL CHAIN OF CUSTODY

Page 54 of 749

PROJECT NAME/NUMBER
National Grid Hempstead, NY MGP PDI
1175065-00011

SAMPLERS: (signature)/Client

Jeffrey H. Harshman URS

DELIVERABLES:

TURNAROUND TIME: *Standard*

CLIENT: <i>URS</i>				H2M SDG NO: <i>KEY-URS039</i>						
Sample Container Description ↓	Total No. of Containers ↓	ANALYSIS REQUESTED						NOTES: Run samples for Forensic Fingerprint Analyses: To be subed to META	Project Contact: <i>Kevin Connare</i> <i>Jeff Harshman</i> Phone Number: <i>(716) 861-7661</i> <i>(603) 401-7322</i> PIS/Quote #	
		ORGANIC			INORG.					
		VOC	BNA	PAH/PCB						
DATE	TIME	MATRIX	FIELD I.D.						LAB I.D. NO.	REMARKS:
10/30/08		SOIL	HISB-110/20-25	3	X	X			0812791-001	
			HISB-110/25-29	3	X	X			-002	
			HISB-110/29-30	3	X	X			-003	
			HISB-111/20-25	3	X	X			-004	
			HISB-111/30-35	3	X	X			-005	
10/31/08		SOIL	HISB-112/25-30	3	X	X			-006	
			HISB-112/32-35	3	X	X			-007	
			HISB-113/25-30	3	X	X			-008	
			HISB-113/30-35	3	X	X			-009	

Relinquished by: (Signature) <i>Jeffrey H. Harshman</i>	Date 10/31/08	Time 1200	Received by: (Signature) <i>[Signature]</i>	Date 10/31/08	Time 1230
Relinquished by: (Signature) <i>[Signature]</i>	Date 10/31/08	Time 1708	Received by: (Signature) <i>[Signature]</i>	Date 10/31/08	Time 1708
Relinquished by: (Signature) <i>[Signature]</i>	Date 10/31/08	Time 17:10	Received by: (Signature) <i>[Signature]</i>	Date 10/31/08	Time 17:10
Relinquished by: (Signature) <i>[Signature]</i>	Date	Time	Received by: (Signature)	Date	Time

LABORATORY USE ONLY	
Discrepancies Between Sample Labels and COC Record? Y or N Explain:	<p>Samples were:</p> <p>1. Shipped <input type="checkbox"/> or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____</p> <p>2. Ambient or chilled Temp _____</p> <p>3. Received in good condition: Y or N <input checked="" type="checkbox"/></p> <p>4. Properly preserved Y or N <input checked="" type="checkbox"/></p> <p>COC Tape was:</p> <p>1. Present on outer package: Y or N <input checked="" type="checkbox"/></p> <p>2. Unbroken on outer package: Y or N <input checked="" type="checkbox"/></p> <p>3. COC record present & complete upon sample receipt: Y or N <input checked="" type="checkbox"/></p>

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Prep Method	Cleanup Method	Analysis Method	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
HC081104-02	HISB - 110/20-25	Soil	2508		4007/4008	10/30/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-03	HISB - 110/25-29	Soil	2508		4007/4008	10/30/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-04	HISB - 110/29-30	Soil	2508		4007/4008	10/30/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-05	HISB - 111/20-25	Soil	2508		4007/4008	10/30/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-06	HISB - 111/30-35	Soil	2508		4007/4008	10/30/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-07	HISB - 112/25-30	Soil	2508		4007/4008	10/31/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-08	HISB - 112/32-35	Soil	2508		4007/4008	10/31/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-09	HISB - 113/25-30	Soil	2508		4007/4008	10/31/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS
HC081104-10	HISB - 113/30-35	Soil	2508		4007/4008	10/31/2008	11/4/2008	U03012	1 x 4 oz jar		H2M	Key-URS

Logged By:

Date:

Reviewed By:

Date:

META Environmental, Inc.
Sample Receipt Checklist

Receipt date: 11-4-07
 Login date: 11-4-07
 Login personnel: JO

Client Information:

Company Name: H2M
 Project Manager: none listed
 Project Name: Key-URS Hamsted

Shipping Information:

How were samples received? UPS FedEx DHL Other:
 Number of coolers: 1
 Internal temperature of coolers: 0°C
 Was ice present? Yes / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? Yes / No
 Was it signed? Yes / No
 Was all project information present on the COC? Yes / No
 Was a bill of lading or shipping label retained? Yes / No

Sample Information:

Number of sample containers: 9
 Does this match the COC? Yes / No
 Were all sample containers Intact? Yes / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / No / NA

Comments:

Custodian: Jaclyn O'Neil

Project Manager: [Signature]

H2M LABS, INC.

575 Broad Hollow Road
 Melville, NY 11747-5076
 (631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
 49 Clarendon Street

TEL: (617) 923-4662
 FAX:

H2M Client : KEY-URS 040

Watertown, Massachusetts 02472

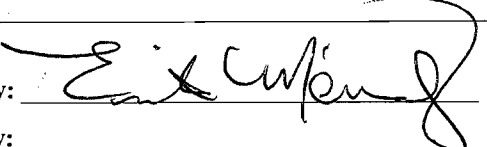
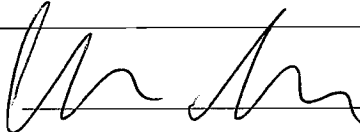
Acct #:

06-Nov-08

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests				TOTAL BOTTLES
0813003-001A	Oil	11/5/2008 9:00:00 AM	40MLVIAL	2			Heos1107-eta, b 03 JH 11/10/08	2

Comments:

Please analyze above samples for GC/MS FINGERPRINT (GC/MS and GC/FID) QUANT/PRODUCT ID CATEGORIZE/SOURCE. If you have any questions please contact Jennifer Aracri at (631)694-3040x1211. Thank You.

Relinquished by: 	Date/Time: 11/6/08 1745	Received by: 	Date/Time: 11/7/08 5:30
Relinquished by: _____		Received by: _____	

4.202

PINK COPY - LABORATORY

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Prep Method	Cleanup Method	Analysis Method	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
HC081107-03a,b	HISB-112 / TW / Product	NAPL	2512		4007/4008	11/5/2008	11/7/2008	H09010-60	2 x 40 ml VOA		H2M	Kev-URS

Logged By: 

Date: 11/8/08

Reviewed By: 

Date: 11/10/08

META Environmental, Inc.
Sample Receipt Checklist

Receipt date: 11/7/08
 Login date: 11/7/08
 Login personnel: ERL

Client Information:

Company Name: H2M
 Project Manager: NA
 Project Name: Key - URS

Shipping Information:

How were samples received? UPS ☒ FedEx DHL Other:
 Number of coolers: 1
 Internal temperature of coolers: 4.2°C
 Was ice present? ☒ Yes / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? ☒ Yes / No
 Was it signed? ☒ Yes / No
 Was all project information present on the COC? Yes / ☒ No
 Was a bill of lading or shipping label retained? ☒ Yes / No

Sample Information:

Number of sample containers: 2
 Does this match the COC? ☒ Yes / No
 Were all sample containers Intact? ☒ Yes / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / ☒ No / NA

Comments:

Custodian: ERL

Project Manager: [Signature]

Appendix B

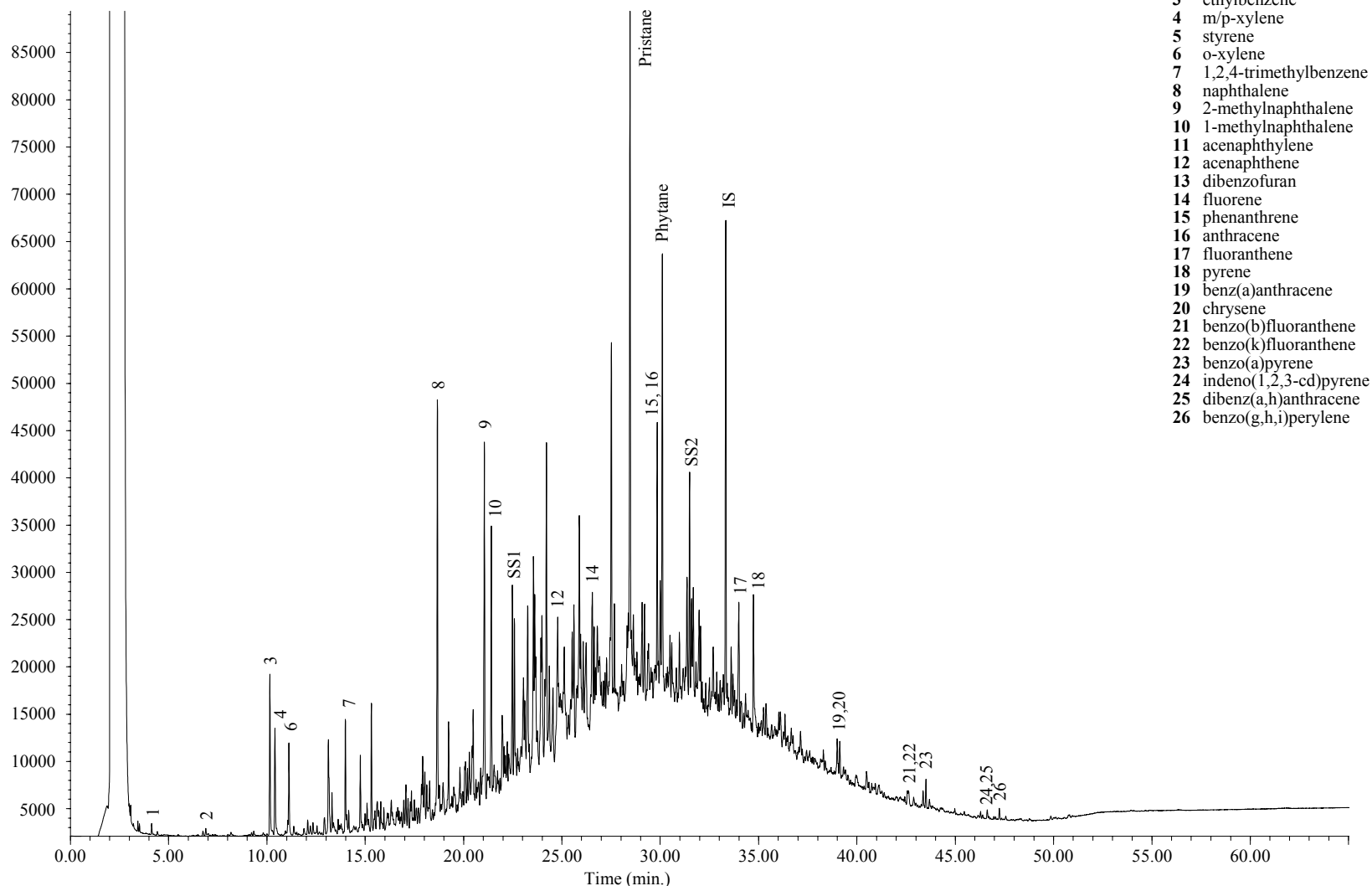
Chains of Custody

for SDG HC081104, HC081107

GC/FID Fingerprint

App Page 62 of 749

C111111.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 110/20-25

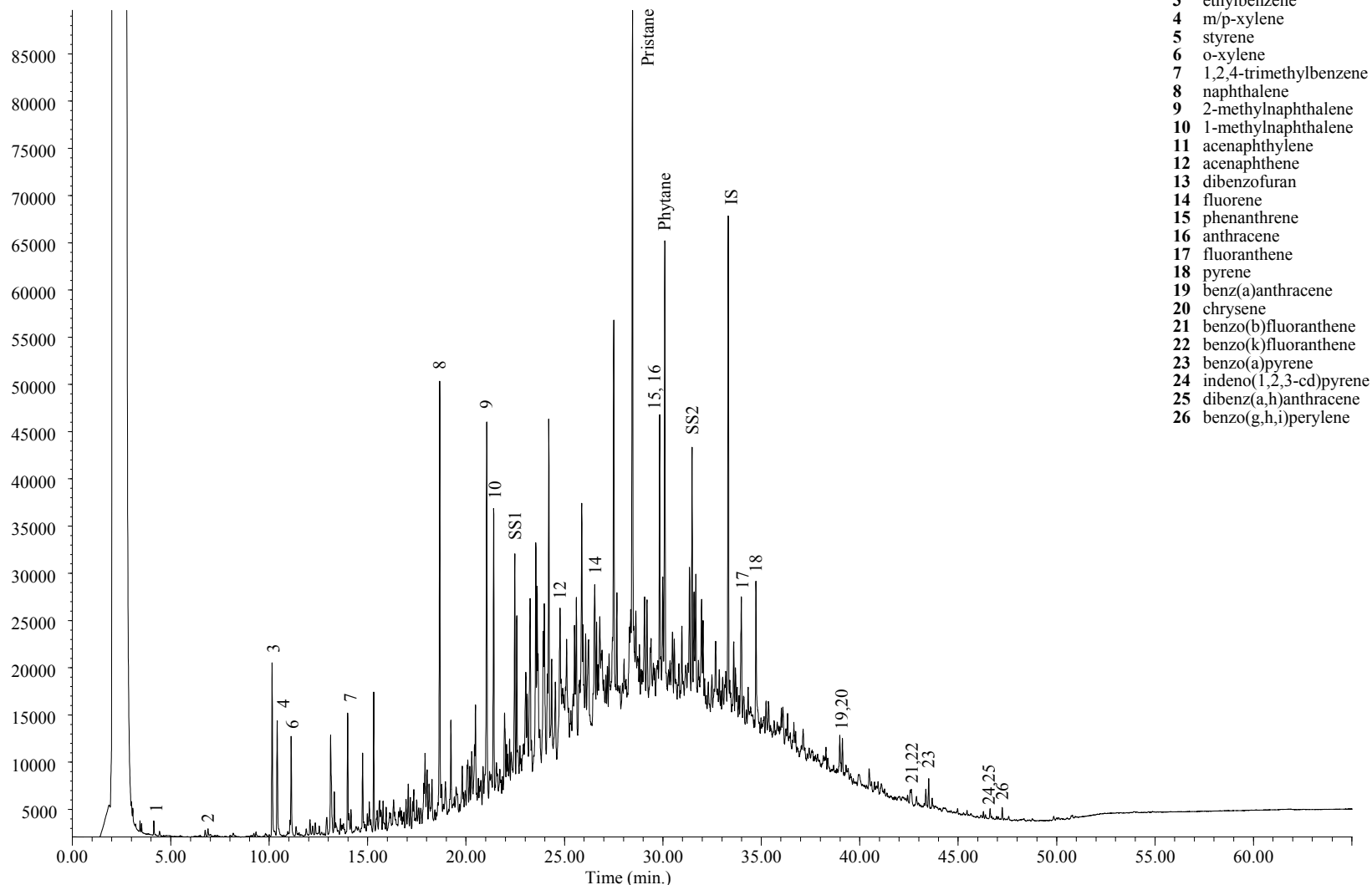
Laboratory ID: HC081104-02

Method: EPA 8100M

GC/FID Fingerprint

App Page 63 of 749

C111112.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 110/20-25

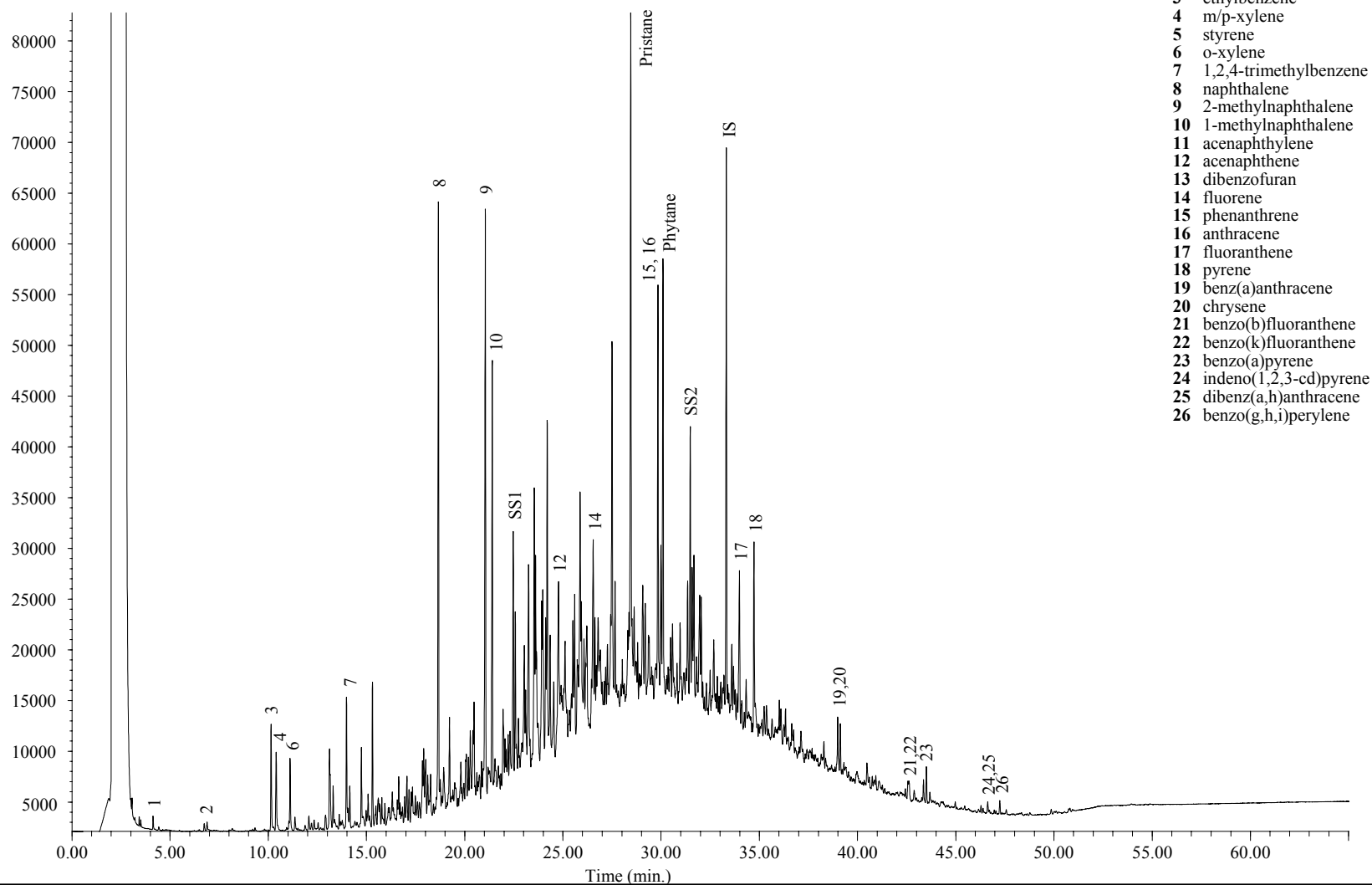
Laboratory ID: HC081104-02DUP

Method: EPA 8100M

GC/FID Fingerprint

App Page 64 of 749

C111113.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 110/25-29

Laboratory ID: HC081104-03

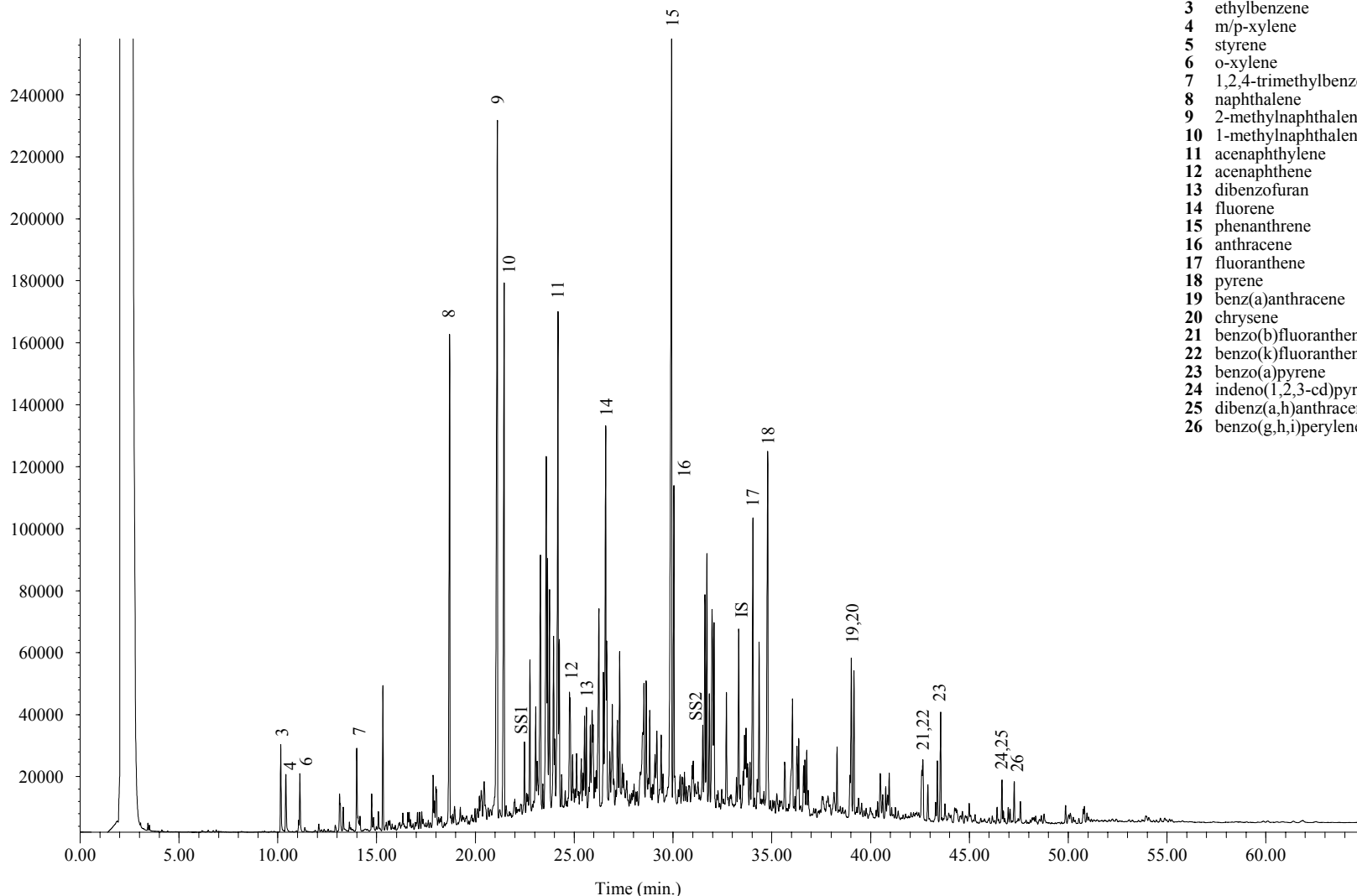
Method: EPA 8100M

GC/FID Fingerprint

App Page 65 of 749

C111117.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5a-androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 110/29-30

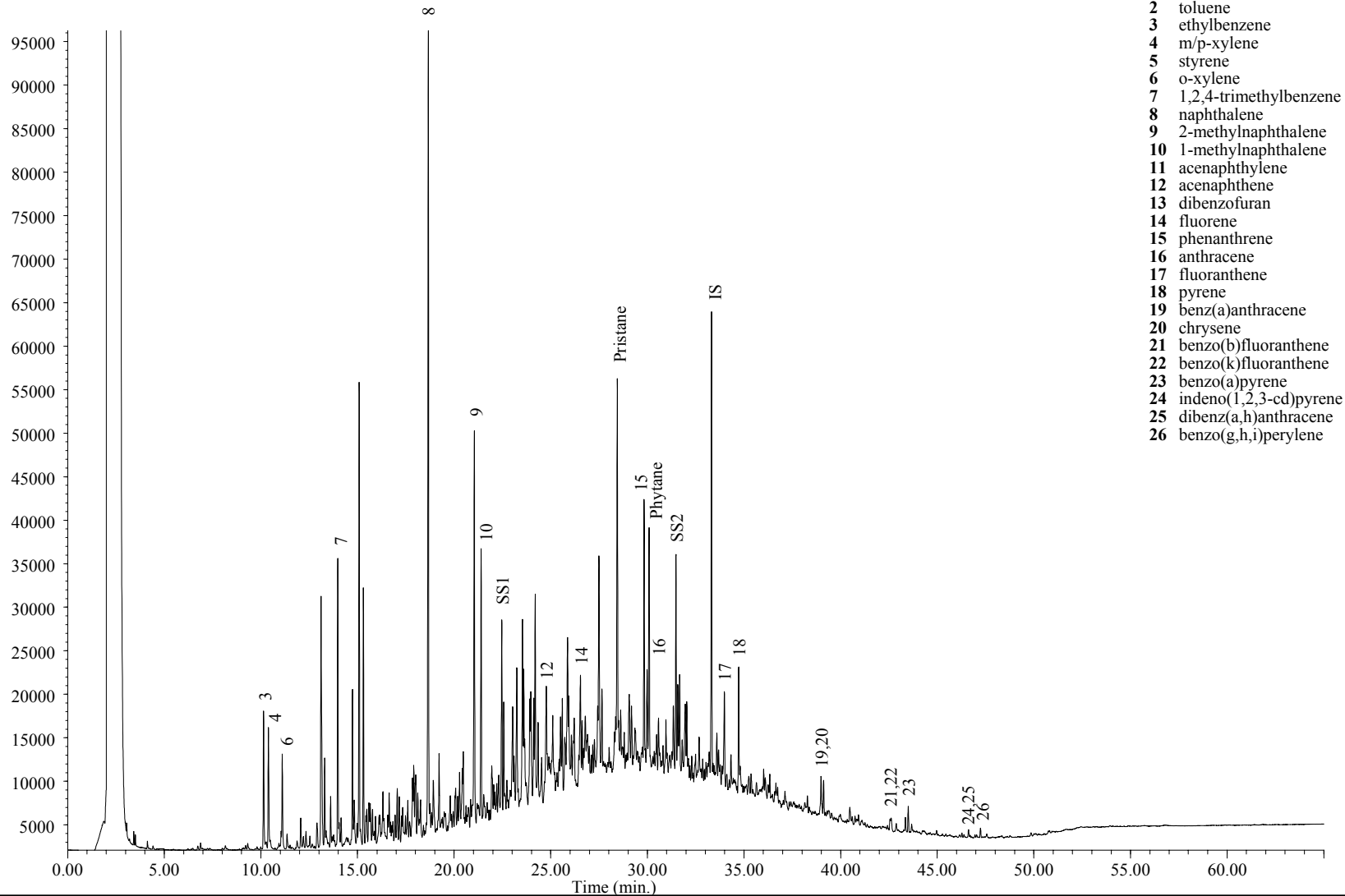
Laboratory ID: HC081104-04

Method: EPA 8100M

GC/FID Fingerprint

App Page 66 of 749

C111118.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS - 5 α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

Field ID: HISB - 11/20-25

Laboratory ID: HC081104-05

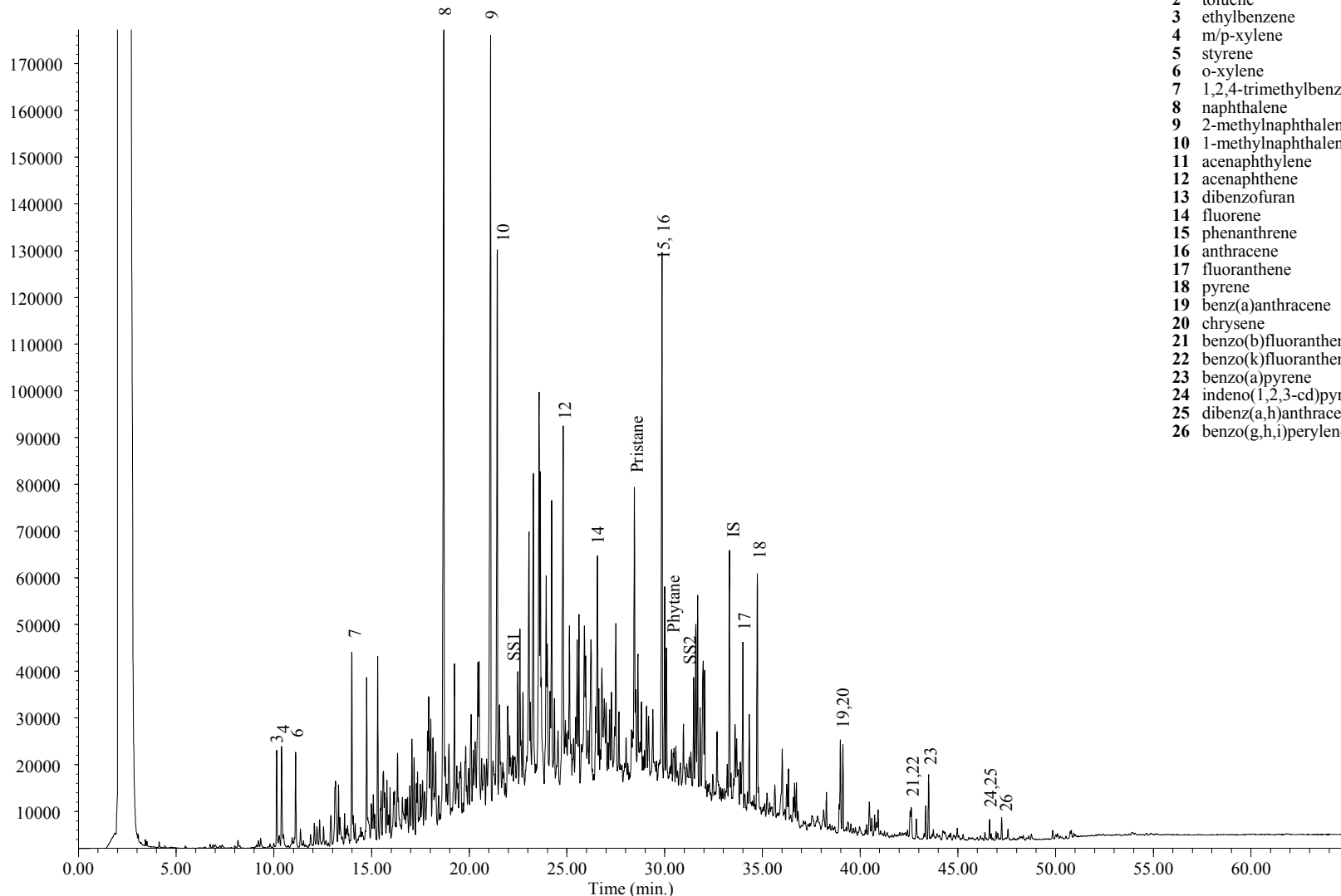
Method: EPA 8100M

GC/FID Fingerprint

App Page 67 of 749

C111119.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 111/30-35

Laboratory ID: HC081104-06

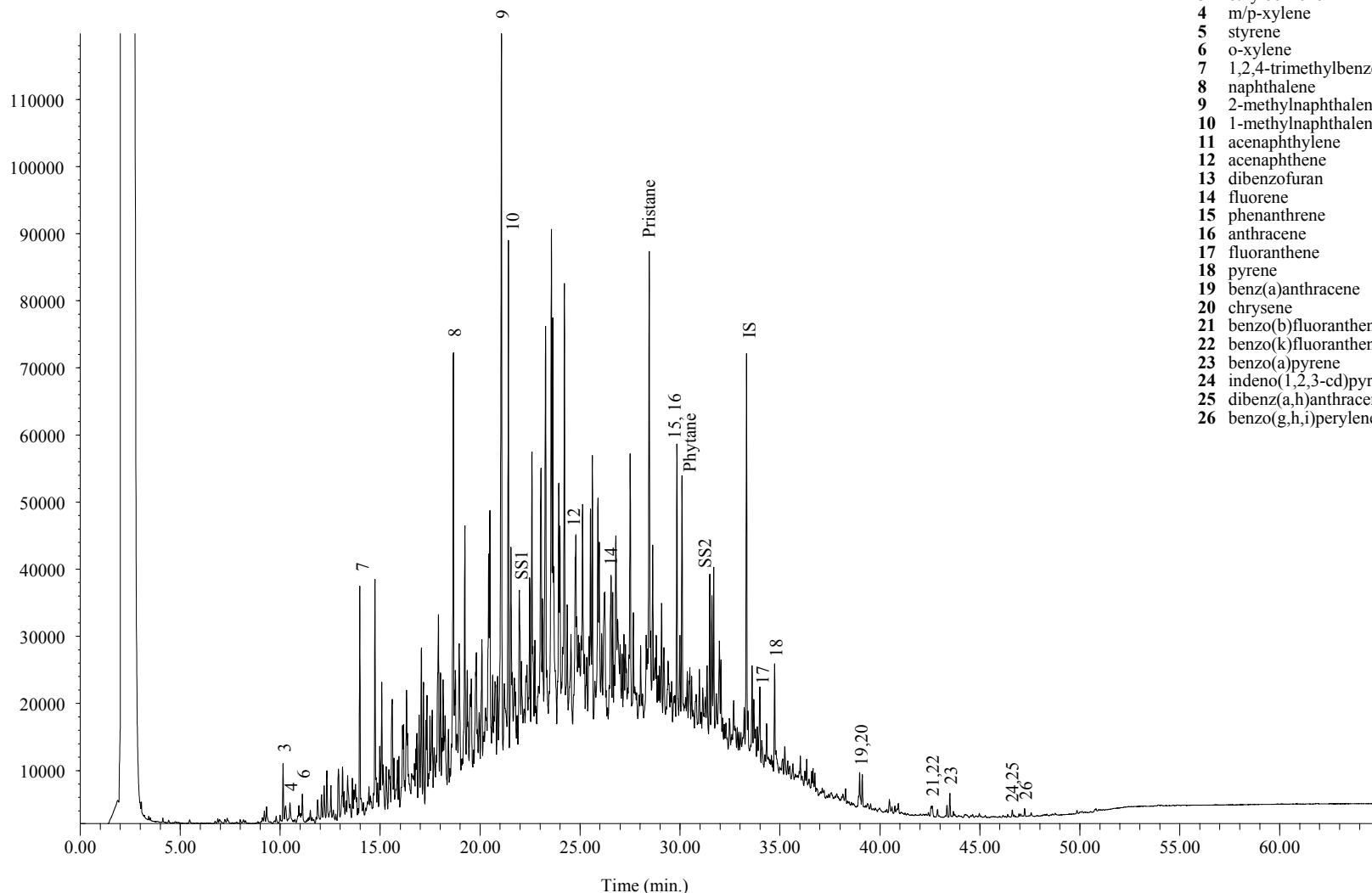
Method: EPA 8100M

GC/FID Fingerprint

App Page 68 of 749

C111120.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 112/25-30

Laboratory ID: HC081104-07

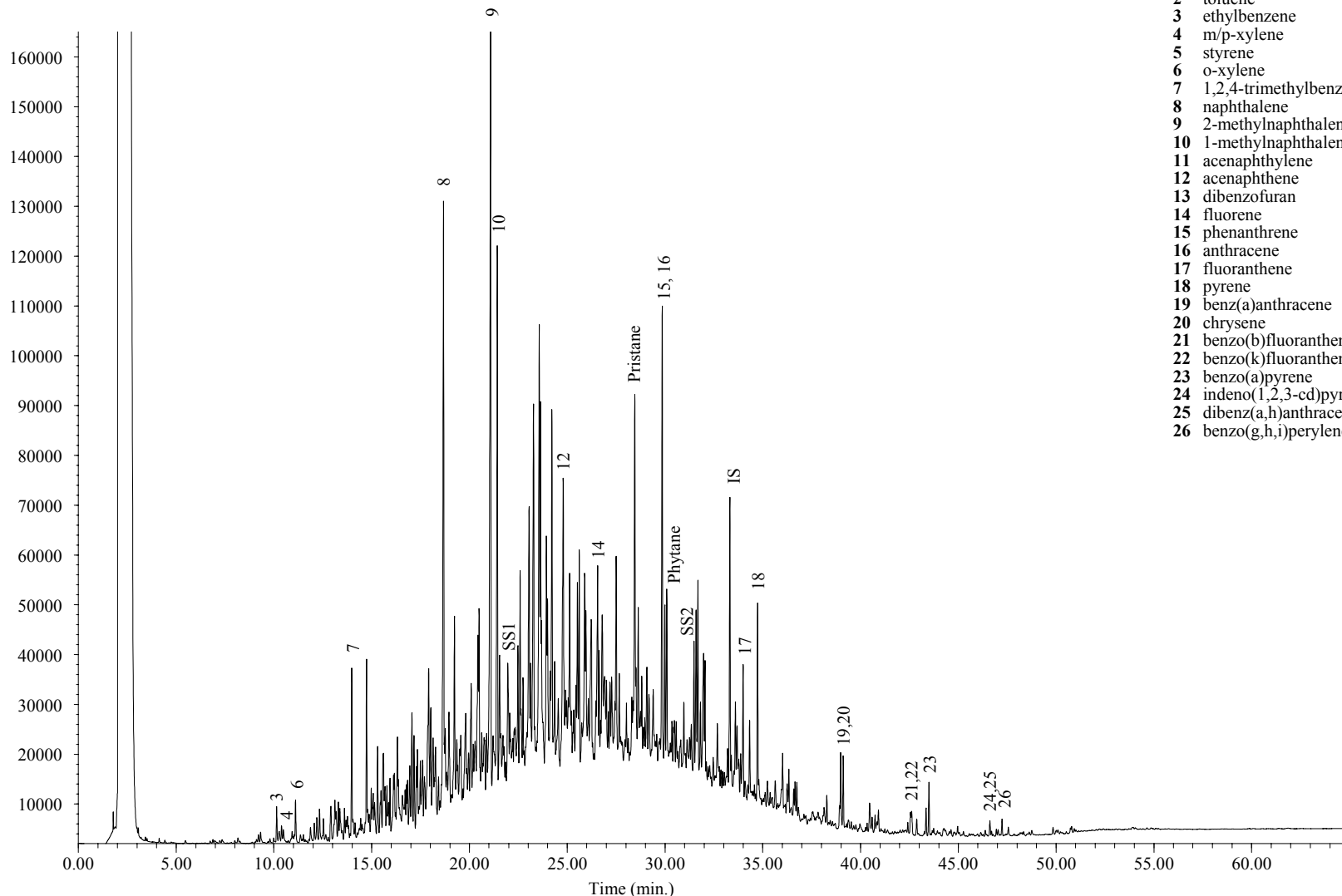
Method: EPA 8100M

GC/FID Fingerprint

App Page 69 of 749

C111121.D\FID2B

- 1 benzene
- 2 toluene
- 3 ethylbenzene
- 4 m/p-xylene
- 5 styrene
- 6 o-xylene
- 7 1,2,4-trimethylbenzene
- 8 naphthalene
- 9 2-methylnaphthalene
- 10 1-methylnaphthalene
- 11 acenaphthylene
- 12 acenaphthene
- 13 dibenzofuran
- 14 fluorene
- 15 phenanthrene
- 16 anthracene
- 17 fluoranthene
- 18 pyrene
- 19 benz(a)anthracene
- 20 chrysene
- 21 benzo(b)fluoranthene
- 22 benzo(k)fluoranthene
- 23 benzo(a)pyrene
- 24 indeno(1,2,3-cd)pyrene
- 25 dibenz(a,h)anthracene
- 26 benzo(g,h,i)perylene



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 112/32-35

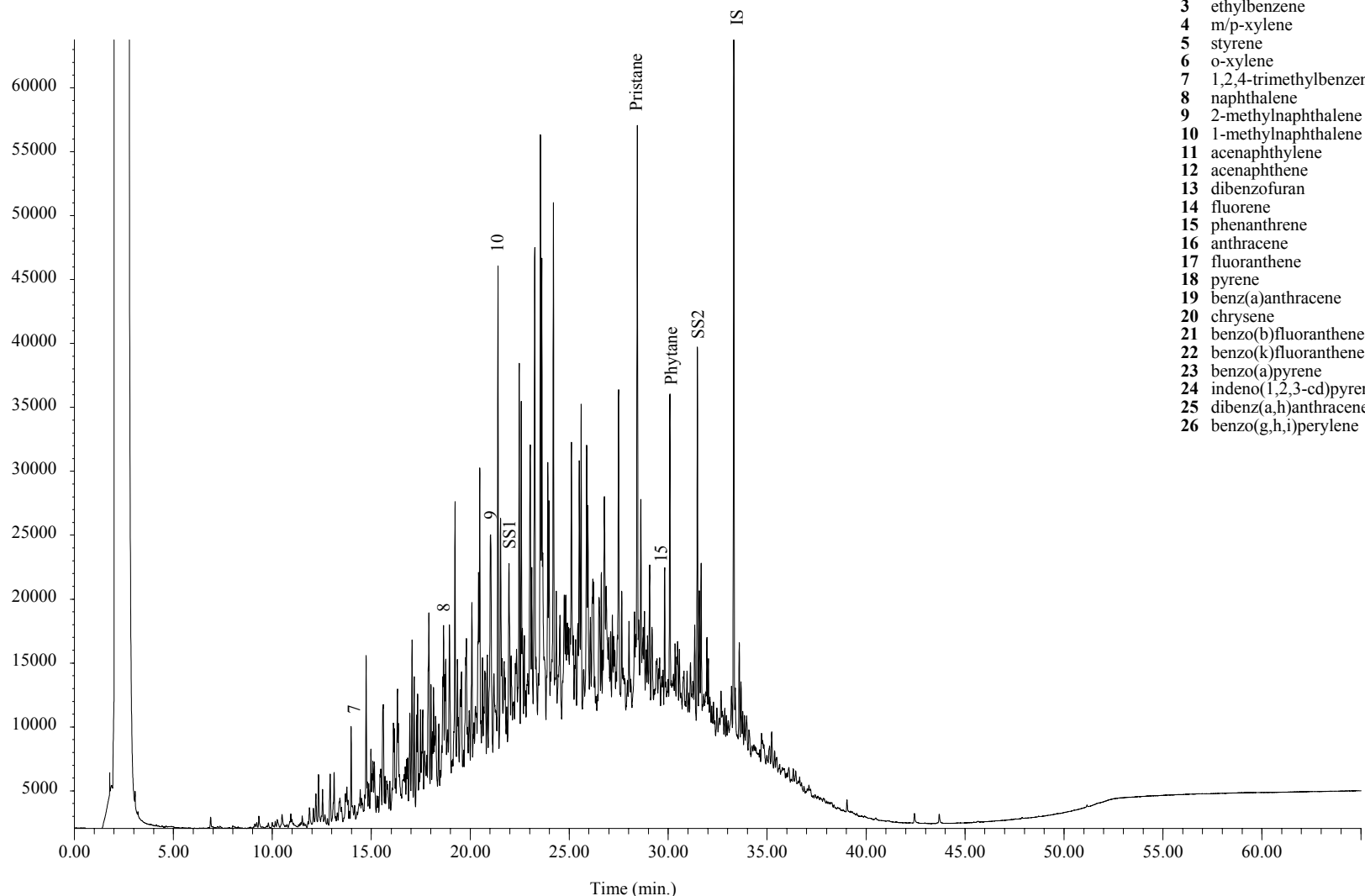
Laboratory ID: HC081104-08

Method: EPA 8100M

GC/FID Fingerprint

App Page 70 of 749

C111122.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 113/25-30

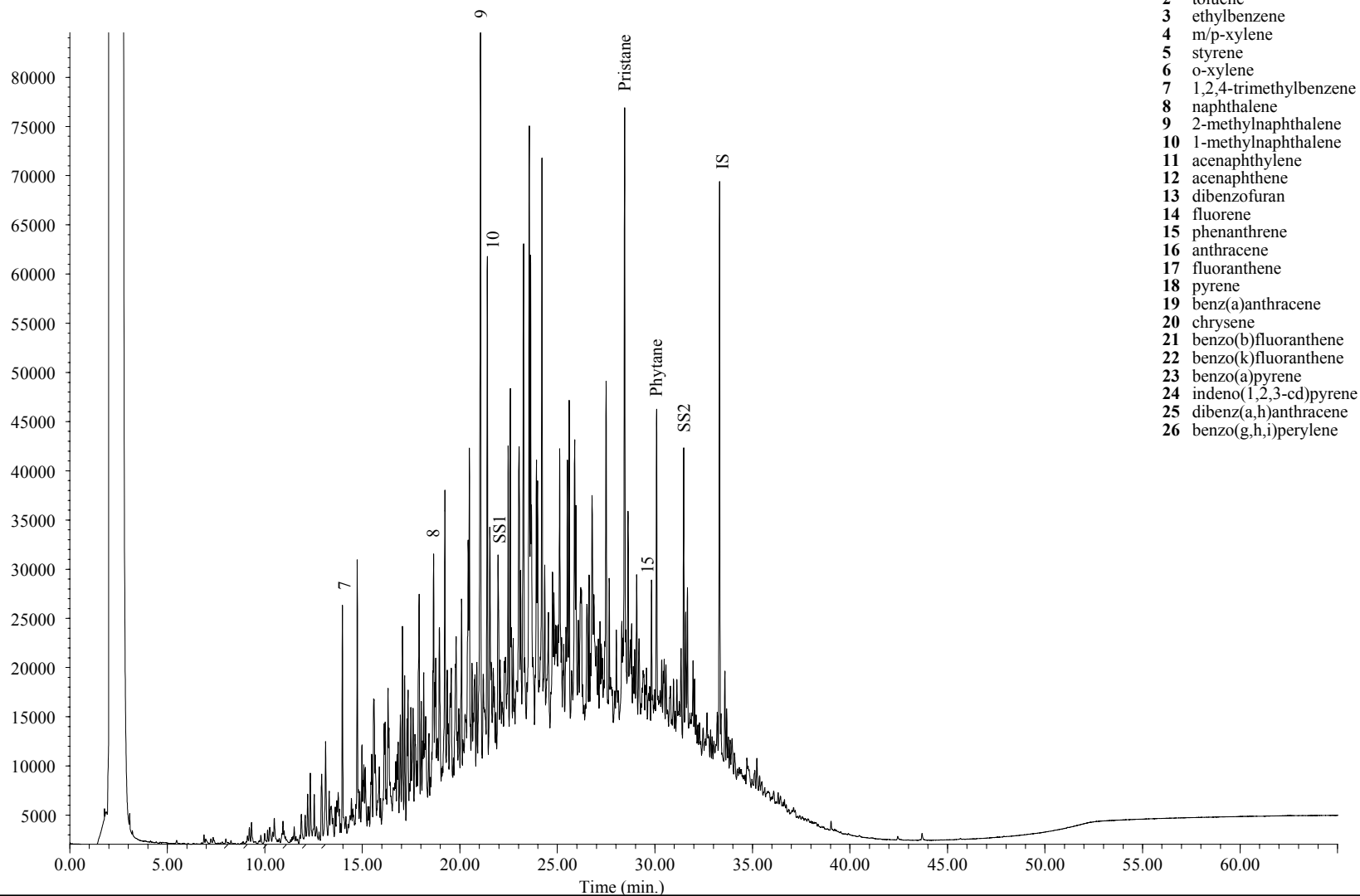
Laboratory ID: HC081104-09

Method: EPA 8100M

GC/FID Fingerprint

App Page 71 of 749

C111123.D\FID2B



Extraction Date: 11/05/08

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB – 113/30-35

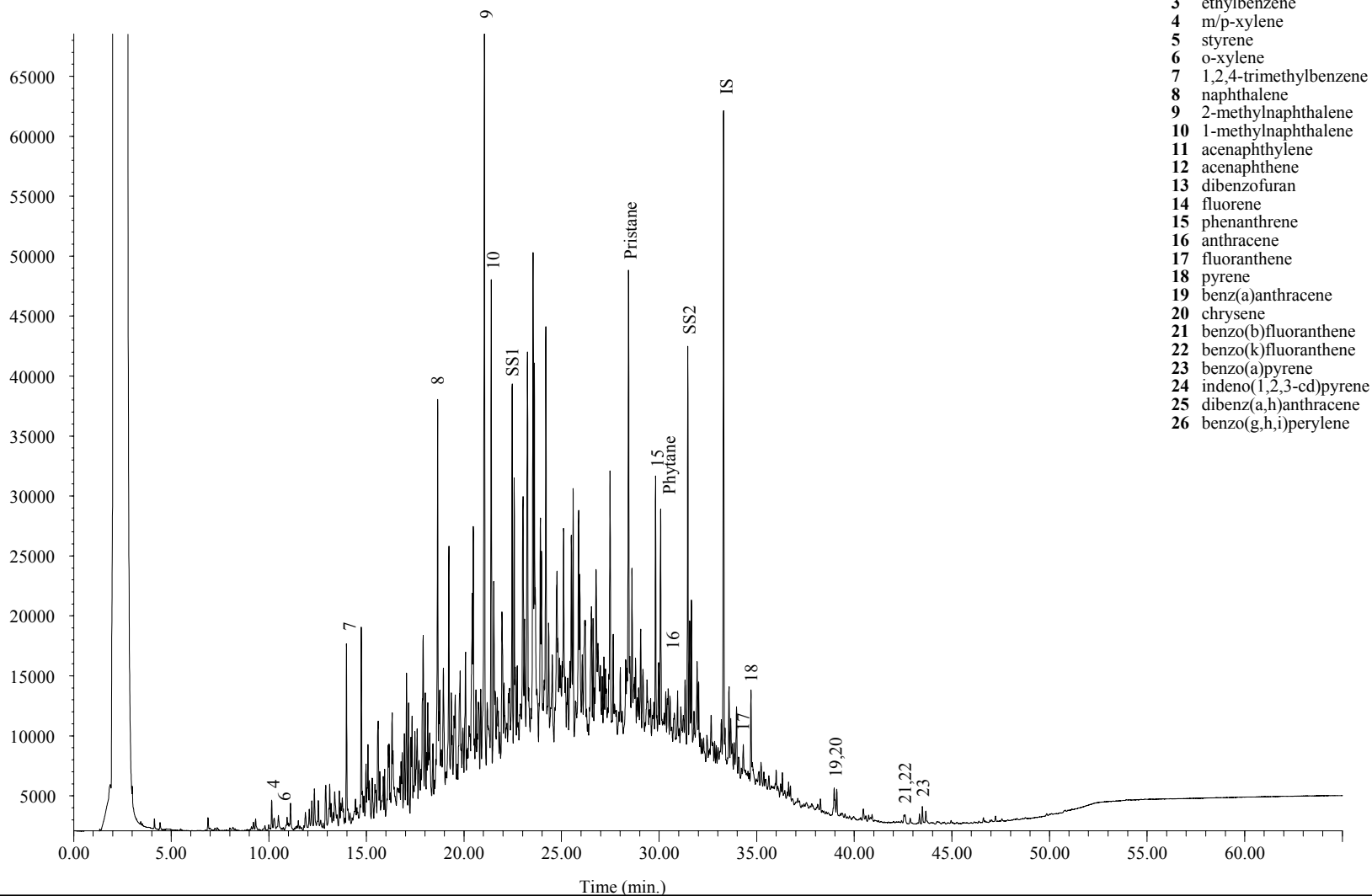
Laboratory ID: HC081104-10

Method: EPA 8100M

GC/FID Fingerprint

App Page 72 of 749

C111124.D\FID2B



Extraction Date: 11/11/2008

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB -112/TW/Product

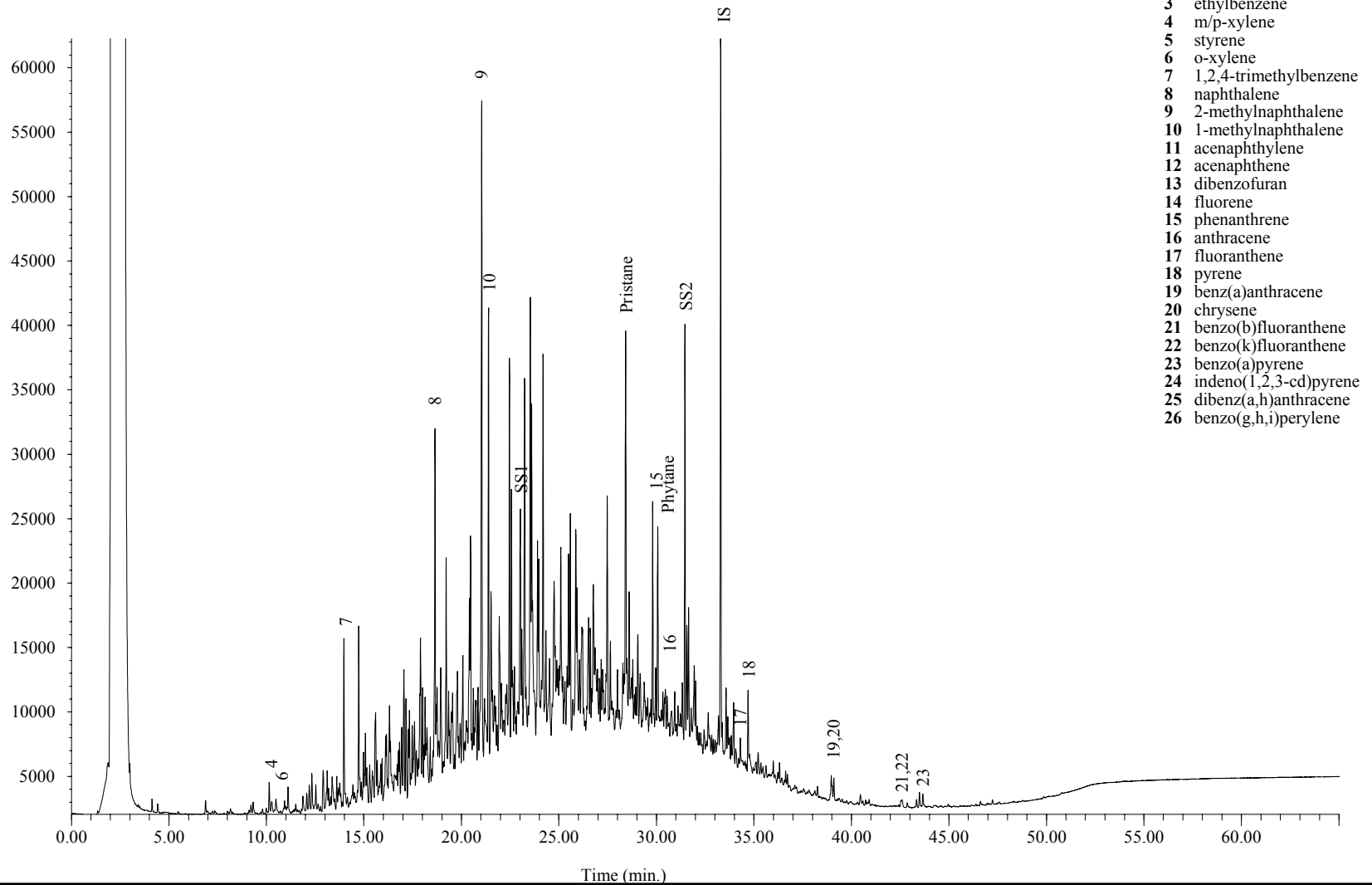
Laboratory ID: HC081107-03

Method: EPA 8100M

GC/FID Fingerprint

App Page 73 of 749

C111125.D\FID2B



Extraction Date: 11/11/2008

Analysis Date: 11/12/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: HISB -112/TW/Product

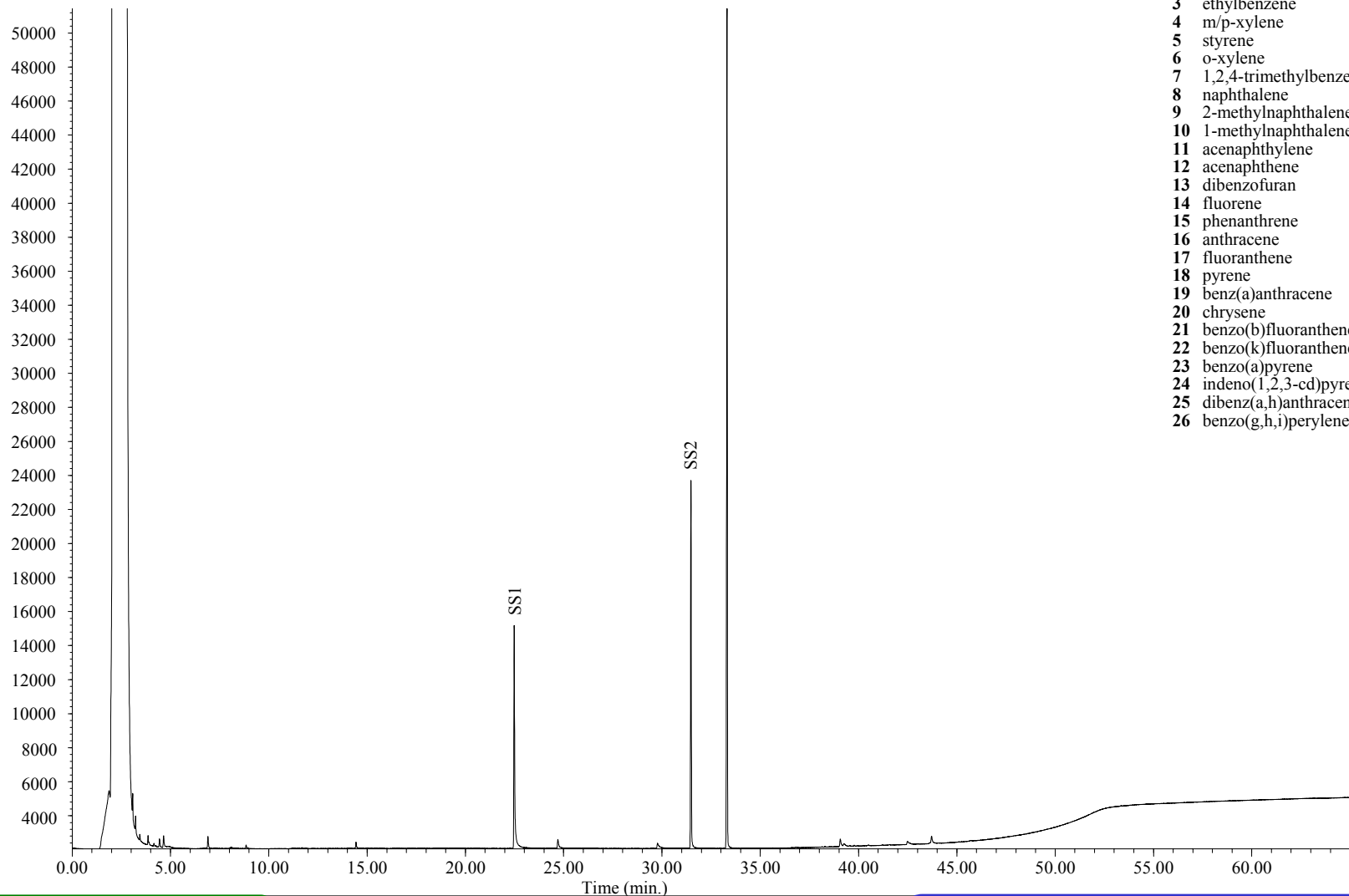
Laboratory ID: HC081107-03DUP

Method: EPA 8100M

GC/FID Fingerprint

App Page 74 of 749

C111105.D\FID2B



Extraction Date: 11/05/2008

Analysis Date: 11/11/2008

IS – 5 α -androsterone

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: Soil Blank

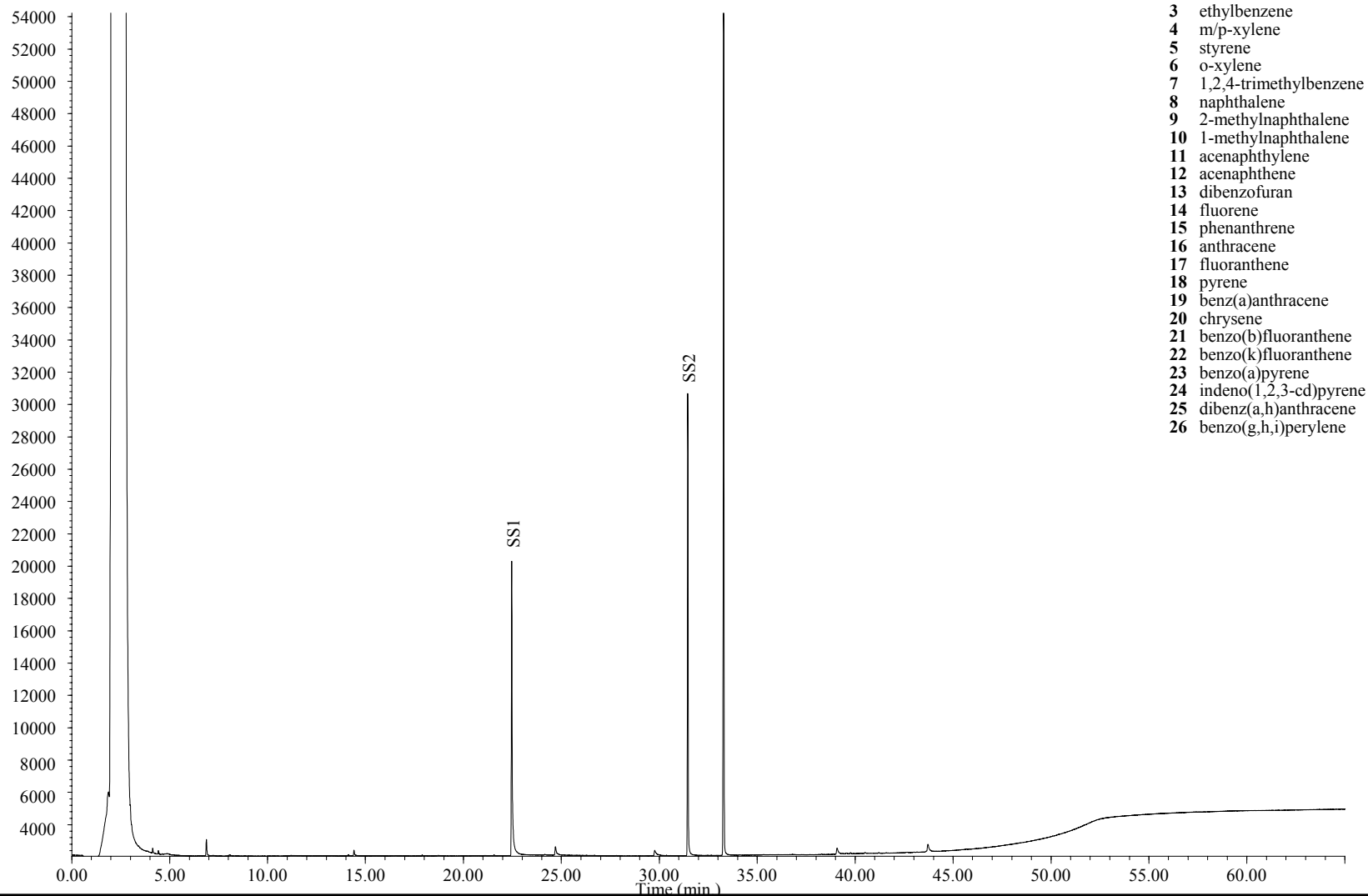
Laboratory ID: QC081105-SB

Method: EPA 8100M

GC/FID Fingerprint

App Page 75 of 749

C111130.D\FID2B



Extraction Date: 11/11/2008

Analysis Date: 11/13/2008

IS – 5 α -androstane

SS1 – 2-fluorobiphenyl

SS2 – o-terphenyl

Field ID: Soil Blank

Laboratory ID: QC081111-MB

Method: EPA 8100M

Appendix C

GC/FID Fingerprints

for SDG HC081104, HC081107

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-02		
File ID:	E111106.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.82
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.061 B	0.004	0.002
Toluene	0.133 B	0.004	0.002
Ethylbenzene	8.34	0.004	0.002
m/p-Xylenes	6.98	0.004	0.002
Styrene	1.6 B	0.004	0.002
o-Xylene	5.26	0.004	0.002
Isopropylbenzene	0.992	0.004	0.002
n-Propylbenzene	0.617	0.004	0.002
1,3,5-Trimethylbenzene	2.37	0.004	0.002
1,2,4-Trimethylbenzene	4.53	0.004	0.002
t-Butylbenzene	U	0.004	0.002
sec-Butylbenzene	0.150	0.004	0.002
p-Isopropyltoluene	0.607	0.004	0.002
n-Butylbenzene	0.597	0.004	0.002
C1 - Benzene	0.080 B	0.004	0.002
C2 - Benzene	11.2	0.004	0.002
C3 - Benzene	9.34	0.004	0.002
C4 - Benzene	4.57	0.004	0.002
C5 - Benzene	3.03	0.004	0.002
trans-Decalin	1.03	0.004	0.002
cis-Decalin	0.079	0.004	0.002
Naphthalene	26.3 DB	0.004	0.002
2-Methylnaphthalene	25.2 DB	0.004	0.002
1-Methylnaphthalene	16.5 DB	0.004	0.002
C1 - Naphthalene	26.0 DB	0.004	0.002
C2 - Naphthalene	23.6 B	0.004	0.002
C3- Naphthalene	21.3 B	0.004	0.002
C4- Naphthalene	11.1	0.004	0.002
Acenaphthylene	2.22	0.004	0.002
Acenaphthene	5.77 B	0.004	0.002
Dibenzofuran	0.955 B	0.004	0.002
Fluorene	5.12 B	0.004	0.002
C1 - Fluorene	5.26	0.004	0.002
C2 - Fluorene	5.69	0.004	0.002
C3 - Fluorene	3.33	0.004	0.002
Phenanthrene	11.5 B	0.004	0.002
Anthracene	4.59 B	0.004	0.002

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-02		
File ID:	E111106.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.82
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	14.3 B	0.004	0.002	
C2 - Phenanthrene/Anthracene	9.35	0.004	0.002	
C3 - Phenanthrene/Anthracene	3.78	0.004	0.002	
C4 - Phenanthrene/Anthracene	1.06	0.004	0.002	
Dibenzothiophene	2.28 B	0.004	0.002	
C1 - Dibenzothiophene	4.21	0.004	0.002	
C2 - Dibenzothiophene	4.58	0.004	0.002	
C3 - Dibenzothiophene	2.7	0.004	0.002	
C4 - Dibenzothiophene	1.01	0.004	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.418	0.004	0.002	
Fluoranthene	3.76 B	0.004	0.002	
Pyrene	5.81 B	0.004	0.002	
C1 - Fluoranthene/Pyrene	6.58	0.004	0.002	
C2 - Fluoranthene/Pyrene	2.46	0.004	0.002	
C3 - Fluoranthene/Pyrene	0.884	0.004	0.002	
Benz[a]anthracene	2.11 B	0.004	0.002	
Chrysene*	2.1 B	0.004	0.002	
C1 - Benz(a)anthracene/Chrysene	1.94	0.004	0.002	
C2 - Benz(a)anthracene/Chrysene	0.789	0.004	0.002	
C3 - Benz(a)anthracene/Chrysene	0.248	0.004	0.002	
C4 - Benz(a)anthracene/Chrysene	0.108	0.004	0.002	
Benzo[b]fluoranthene	0.714	0.004	0.002	
Benzo[j/k]fluoranthene	0.955	0.004	0.002	
Benzo(e)pyrene	0.862	0.004	0.002	
Benzo[a]pyrene	1.63	0.004	0.002	
Perylene	0.228	0.004	0.002	
Indeno[1,2,3-cd]pyrene	0.483	0.004	0.002	
Dibenz[a,h]anthracene	0.197	0.004	0.002	
Benzo[g,h,i]perylene	0.565	0.004	0.002	
Coronene	0.131	0.004	0.002	
Retene	U	0.004	0.002	
Benzo(b/c)fluorenes	0.912	0.004	0.002	
2-Methylpyrene	0.912	0.004	0.002	
4-Methylpyrene	0.959	0.004	0.002	
1-Methylpyrene	0.952	0.004	0.002	
Heptadecane	BU	0.004	0.002	
Pristane	69.0 D	0.004	0.002	
Octadecane	BU	0.004	0.002	
Phytane	42.7 D	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-02		
File ID:	E111106.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.82
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	9.4 D	0.004	0.002	
2,6,10-trimethyltridecane	17.0 D	0.004	0.002	
Norpristane	26.9 D	0.004	0.002	
Tetraethyl lead	U	0.004	0.002	
Total PAH (16)	73.8	0.004	0.002	
Total PAH (42)	228	0.004	0.002	

Extraction Surrogate Recoveries (%)	Limits
Toluene-d8	89 50 - 120
Phenanthrene-d10	86 50 - 120
Perylene-d12	72 50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: HISB - 110/25-29

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-03		
File ID:	E111108.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.57
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.026 B	0.004	0.002	
Toluene	0.054 B	0.004	0.002	
Ethylbenzene	6.59	0.004	0.002	
m/p-Xylenes	5.85	0.004	0.002	
Styrene	1.13 B	0.004	0.002	
o-Xylene	4.6	0.004	0.002	
Isopropylbenzene	1.05	0.004	0.002	
n-Propylbenzene	0.625	0.004	0.002	
1,3,5-Trimethylbenzene	2.7	0.004	0.002	
1,2,4-Trimethylbenzene	5.43	0.004	0.002	
t-Butylbenzene	U	0.004	0.002	
sec-Butylbenzene	0.144	0.004	0.002	
p-Isopropyltoluene	0.728	0.004	0.002	
n-Butylbenzene	0.662	0.004	0.002	
C1 - Benzene	0.035 B	0.004	0.002	
C2 - Benzene	8.68	0.004	0.002	
C3 - Benzene	10.3	0.004	0.002	
C4 - Benzene	5.13	0.004	0.002	
C5 - Benzene	3.26	0.004	0.002	
trans-Decalin	0.968	0.004	0.002	
cis-Decalin	0.072	0.004	0.002	
Naphthalene	39.1 DB	0.004	0.002	
2-Methylnaphthalene	43.1 DB	0.004	0.002	
1-Methylnaphthalene	27.8 DB	0.004	0.002	
C1 - Naphthalene	44.2 DB	0.004	0.002	
C2 - Naphthalene	31.1 B	0.004	0.002	
C3- Naphthalene	23.7 B	0.004	0.002	
C4- Naphthalene	11.5	0.004	0.002	
Acenaphthylene	5.38	0.004	0.002	
Acenaphthene	7.73 B	0.004	0.002	
Dibenzofuran	1.45 B	0.004	0.002	
Fluorene	8.17 B	0.004	0.002	
C1 - Fluorene	6.97	0.004	0.002	
C2 - Fluorene	6.46	0.004	0.002	
C3 - Fluorene	3.47	0.004	0.002	
Phenanthrene	29.4 DB	0.004	0.002	
Anthracene	9.36 DB	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/25-29

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-03		
File ID:	E111108.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.57
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	18.9 B	0.004	0.002	
C2 - Phenanthrene/Anthracene	10.7	0.004	0.002	
C3 - Phenanthrene/Anthracene	3.92	0.004	0.002	
C4 - Phenanthrene/Anthracene	1.01	0.004	0.002	
Dibenzothiophene	2.8 B	0.004	0.002	
C1 - Dibenzothiophene	4.69	0.004	0.002	
C2 - Dibenzothiophene	4.74	0.004	0.002	
C3 - Dibenzothiophene	2.65	0.004	0.002	
C4 - Dibenzothiophene	1.02	0.004	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.517	0.004	0.002	
Fluoranthene	5.74 B	0.004	0.002	
Pyrene	8.36 B	0.004	0.002	
C1 - Fluoranthene/Pyrene	9.02	0.004	0.002	
C2 - Fluoranthene/Pyrene	2.97	0.004	0.002	
C3 - Fluoranthene/Pyrene	0.978	0.004	0.002	
Benz[a]anthracene	3.04 B	0.004	0.002	
Chrysene*	2.97 B	0.004	0.002	
C1 - Benz(a)anthracene/Chrysene	2.54	0.004	0.002	
C2 - Benz(a)anthracene/Chrysene	0.964	0.004	0.002	
C3 - Benz(a)anthracene/Chrysene	0.247	0.004	0.002	
C4 - Benz(a)anthracene/Chrysene	0.105	0.004	0.002	
Benzo[b]fluoranthene	0.983	0.004	0.002	
Benzo[j/k]fluoranthene	1.29	0.004	0.002	
Benzo(e)pyrene	1.1	0.004	0.002	
Benzo[a]pyrene	2.18	0.004	0.002	
Perylene	0.292	0.004	0.002	
Indeno[1,2,3-cd]pyrene	0.644	0.004	0.002	
Dibenz[a,h]anthracene	0.259	0.004	0.002	
Benzo[g,h,i]perylene	0.730	0.004	0.002	
Coronene	0.168	0.004	0.002	
Retene	U	0.004	0.002	
Benzo(b/c)fluorenes	1.34	0.004	0.002	
2-Methylpyrene	1.19	0.004	0.002	
4-Methylpyrene	1.1	0.004	0.002	
1-Methylpyrene	1.31	0.004	0.002	
Heptadecane	BU	0.004	0.002	
Pristane	69.8 D	0.004	0.002	
Octadecane	BU	0.004	0.002	
Phytane	42.5 D	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/25-29

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-03		
File ID:	E111108.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.57
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	9.83 D	0.004	0.002	
2,6,10-trimethyltridecane	17.8 D	0.004	0.002	
Norpristane	25.8 D	0.004	0.002	
Tetraethyl lead	U	0.004	0.002	
Total PAH (16)	125	0.004	0.002	
Total PAH (42)	323	0.004	0.002	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	105	50 - 120
Phenanthrene-d10	99	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/29-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-04-D		
File ID:	E111211.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.96
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.132 B	0.034	0.017	
Toluene	0.246 B	0.034	0.017	
Ethylbenzene	19.2	0.034	0.017	
m/p-Xylenes	14.5	0.034	0.017	
Styrene	2.86 B	0.034	0.017	
o-Xylene	12.4	0.034	0.017	
Isopropylbenzene	1.84	0.034	0.017	
n-Propylbenzene	1.15	0.034	0.017	
1,3,5-Trimethylbenzene	4.96	0.034	0.017	
1,2,4-Trimethylbenzene	10.9	0.034	0.017	
t-Butylbenzene	U	0.034	0.017	
sec-Butylbenzene	0.206	0.034	0.017	
p-Isopropyltoluene	1.05	0.034	0.017	
n-Butylbenzene	0.994	0.034	0.017	
C1 - Benzene	0.161 B	0.034	0.017	
C2 - Benzene	19.7	0.034	0.017	
C3 - Benzene	2.29	0.034	0.017	
C4 - Benzene	8.1	0.034	0.017	
C5 - Benzene	4.4	0.034	0.017	
trans-Decalin	0.937	0.034	0.017	
cis-Decalin	U	0.034	0.017	
Naphthalene	110 DB	0.034	0.017	
2-Methylnaphthalene	203 DB	0.034	0.017	
1-Methylnaphthalene	134 DB	0.034	0.017	
C1 - Naphthalene	185 B	0.034	0.017	
C2 - Naphthalene	157 B	0.034	0.017	
C3- Naphthalene	62.5 B	0.034	0.017	
C4- Naphthalene	17.5	0.034	0.017	
Acenaphthylene	114	0.034	0.017	
Acenaphthene	19.8 B	0.034	0.017	
Dibenzofuran	11.2 B	0.034	0.017	
Fluorene	83.4 B	0.034	0.017	
C1 - Fluorene	48.7	0.034	0.017	
C2 - Fluorene	26.2	0.034	0.017	
C3 - Fluorene	8.49	0.034	0.017	
Phenanthrene	237 DB	0.034	0.017	
Anthracene	84.2 DB	0.034	0.017	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/29-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-04-D	Analysis Method:	EPA 8270M
File ID:	E111211.D	Matrix:	Soil
Date Sampled:	10/30/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.96
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	135 B	0.034	0.017	
C2 - Phenanthrene/Anthracene	47.1	0.034	0.017	
C3 - Phenanthrene/Anthracene	10.4	0.034	0.017	
C4 - Phenanthrene/Anthracene	2.14	0.034	0.017	
Dibenzothiophene	14.1 B	0.034	0.017	
C1 - Dibenzothiophene	13.2	0.034	0.017	
C2 - Dibenzothiophene	8.22	0.034	0.017	
C3 - Dibenzothiophene	3.22	0.034	0.017	
C4 - Dibenzothiophene	0.907	0.034	0.017	
Benzo(b)naphtho(2,1-d)thiophene	2.54	0.034	0.017	
Fluoranthene	63.2 B	0.034	0.017	
Pyrene	86.3 B	0.034	0.017	
C1 - Fluoranthene/Pyrene	77.0	0.034	0.017	
C2 - Fluoranthene/Pyrene	19.4	0.034	0.017	
C3 - Fluoranthene/Pyrene	4.76	0.034	0.017	
Benz[a]anthracene	30.1 B	0.034	0.017	
Chrysene*	28.6 B	0.034	0.017	
C1 - Benz(a)anthracene/Chrysene	18.6	0.034	0.017	
C2 - Benz(a)anthracene/Chrysene	5.62	0.034	0.017	
C3 - Benz(a)anthracene/Chrysene	1.14	0.034	0.017	
C4 - Benz(a)anthracene/Chrysene	0.450	0.034	0.017	
Benzo[b]fluoranthene	8.9	0.034	0.017	
Benzo[j/k]fluoranthene	13.8	0.034	0.017	
Benzo(e)pyrene	10.1	0.034	0.017	
Benzo[a]pyrene	21.9	0.034	0.017	
Perylene	3.05	0.034	0.017	
Indeno[1,2,3-cd]pyrene	6.33	0.034	0.017	
Dibenz[a,h]anthracene	2.44	0.034	0.017	
Benzo[g,h,i]perylene	7.1	0.034	0.017	
Coronene	1.83	0.034	0.017	
Retene	U	0.034	0.017	
Benzo(b/c)fluorenes	12.7	0.034	0.017	
2-Methylpyrene	9.61	0.034	0.017	
4-Methylpyrene	8.05	0.034	0.017	
1-Methylpyrene	11.6	0.034	0.017	
Heptadecane	3.52 B	0.034	0.017	
Pristane	13.0	0.034	0.017	
Octadecane	3.05 B	0.034	0.017	
Phytane	7.55	0.034	0.017	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 110/29-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-04-D	Analysis Method:	EPA 8270M
File ID:	E111211.D	Matrix:	Soil
Date Sampled:	10/30/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.96
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	3.22	0.034	0.017	
2,6,10-trimethyltridecane	5.02	0.034	0.017	
Norpristane	5.08	0.034	0.017	
Tetraethyl lead	U	0.034	0.017	
Total PAH (16)	917	0.034	0.017	
Total PAH (42)	1,810	0.034	0.017	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	100	50 - 120
Phenanthrene-d10	98	50 - 120
Perylene-d12	95	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-05		
File ID:	E111110.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.031 B	0.004	0.002	
Toluene	0.047 B	0.004	0.002	
Ethylbenzene	8.36	0.004	0.002	
m/p-Xylenes	8.4	0.004	0.002	
Styrene	2.31 B	0.004	0.002	
o-Xylene	6.02	0.004	0.002	
Isopropylbenzene	2.23	0.004	0.002	
n-Propylbenzene	1.27	0.004	0.002	
1,3,5-Trimethylbenzene	5.38	0.004	0.002	
1,2,4-Trimethylbenzene	10.9	0.004	0.002	
t-Butylbenzene	U	0.004	0.002	
sec-Butylbenzene	0.426	0.004	0.002	
p-Isopropyltoluene	1.5	0.004	0.002	
n-Butylbenzene	1.3	0.004	0.002	
C1 - Benzene	0.032 B	0.004	0.002	
C2 - Benzene	12.2	0.004	0.002	
C3 - Benzene	29.2	0.004	0.002	
C4 - Benzene	9.11	0.004	0.002	
C5 - Benzene	3.77	0.004	0.002	
trans-Decalin	1.28	0.004	0.002	
cis-Decalin	0.080	0.004	0.002	
Naphthalene	61.4 DB	0.004	0.002	
2-Methylnaphthalene	32.8 DB	0.004	0.002	
1-Methylnaphthalene	20.4 DB	0.004	0.002	
C1 - Naphthalene	12.8 DB	0.004	0.002	
C2 - Naphthalene	22.6 B	0.004	0.002	
C3- Naphthalene	16.8 B	0.004	0.002	
C4- Naphthalene	7.74	0.004	0.002	
Acenaphthylene	4.72	0.004	0.002	
Acenaphthene	5.72 B	0.004	0.002	
Dibenzofuran	0.950 B	0.004	0.002	
Fluorene	5.51 B	0.004	0.002	
C1 - Fluorene	4.64	0.004	0.002	
C2 - Fluorene	4.57	0.004	0.002	
C3 - Fluorene	2.34	0.004	0.002	
Phenanthrene	13.3 B	0.004	0.002	
Anthracene	5.39 B	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-05		
File ID:	E111110.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	10/30/2008		
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	14.0 B	0.004	0.002	
C2 - Phenanthrene/Anthracene	7.73	0.004	0.002	
C3 - Phenanthrene/Anthracene	2.7	0.004	0.002	
C4 - Phenanthrene/Anthracene	0.720	0.004	0.002	
Dibenzothiophene	2.17 B	0.004	0.002	
C1 - Dibenzothiophene	3.51	0.004	0.002	
C2 - Dibenzothiophene	3.36	0.004	0.002	
C3 - Dibenzothiophene	1.82	0.004	0.002	
C4 - Dibenzothiophene	0.665	0.004	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.440	0.004	0.002	
Fluoranthene	4.15 B	0.004	0.002	
Pyrene	6.27 B	0.004	0.002	
C1 - Fluoranthene/Pyrene	6.93	0.004	0.002	
C2 - Fluoranthene/Pyrene	2.21	0.004	0.002	
C3 - Fluoranthene/Pyrene	0.709	0.004	0.002	
Benz[a]anthracene	2.28 B	0.004	0.002	
Chrysene*	2.26 B	0.004	0.002	
C1 - Benz(a)anthracene/Chrysene	1.94	0.004	0.002	
C2 - Benz(a)anthracene/Chrysene	0.704	0.004	0.002	
C3 - Benz(a)anthracene/Chrysene	0.209	0.004	0.002	
C4 - Benz(a)anthracene/Chrysene	0.091	0.004	0.002	
Benzo[b]fluoranthene	0.704	0.004	0.002	
Benzo[j/k]fluoranthene	0.966	0.004	0.002	
Benzo(e)pyrene	0.824	0.004	0.002	
Benzo[a]pyrene	1.66	0.004	0.002	
Perylene	0.226	0.004	0.002	
Indeno[1,2,3-cd]pyrene	0.469	0.004	0.002	
Dibenz[a,h]anthracene	0.201	0.004	0.002	
Benzo[g,h,i]perylene	0.543	0.004	0.002	
Coronene	0.125	0.004	0.002	
Retene	U	0.004	0.002	
Benzo(b/c)fluorenes	0.991	0.004	0.002	
2-Methylpyrene	0.952	0.004	0.002	
4-Methylpyrene	0.904	0.004	0.002	
1-Methylpyrene	1.03	0.004	0.002	
Heptadecane	BU	0.004	0.002	
Pristane	44.4 D	0.004	0.002	
Octadecane	BU	0.004	0.002	
Phytane	26.9 D	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-05		
File ID:	E111110.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	7.36 D	0.004	0.002	
2,6,10-trimethyltridecane	12.4 D	0.004	0.002	
Norpristane	18.0 D	0.004	0.002	
Tetraethyl lead	U	0.004	0.002	
Total PAH (16)	116	0.004	0.002	
Total PAH (42)	238	0.004	0.002	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	87	50 - 120
Phenanthrene-d10	85	50 - 120
Perylene-d12	72	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-06-D		
File ID:	E111213.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/30/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.76
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.161 B	0.036	0.018	
Toluene	0.285 B	0.036	0.018	
Ethylbenzene	15.2	0.036	0.018	
m/p-Xylenes	17.3	0.036	0.018	
Styrene	1.77 B	0.036	0.018	
o-Xylene	14.3	0.036	0.018	
Isopropylbenzene	3.14	0.036	0.018	
n-Propylbenzene	2.7	0.036	0.018	
1,3,5-Trimethylbenzene	8.14	0.036	0.018	
1,2,4-Trimethylbenzene	19.9	0.036	0.018	
t-Butylbenzene	U	0.036	0.018	
sec-Butylbenzene	1.74	0.036	0.018	
p-Isopropyltoluene	3.37	0.036	0.018	
n-Butylbenzene	4.0	0.036	0.018	
C1 - Benzene	0.184 B	0.036	0.018	
C2 - Benzene	20.1	0.036	0.018	
C3 - Benzene	28.3	0.036	0.018	
C4 - Benzene	29.0	0.036	0.018	
C5 - Benzene	19.6	0.036	0.018	
trans-Decalin	4.78	0.036	0.018	
cis-Decalin	0.419	0.036	0.018	
Naphthalene	114 B	0.036	0.018	
2-Methylnaphthalene	128 B	0.036	0.018	
1-Methylnaphthalene	82.2 B	0.036	0.018	
C1 - Naphthalene	131 B	0.036	0.018	
C2 - Naphthalene	124 B	0.036	0.018	
C3- Naphthalene	68.9 B	0.036	0.018	
C4- Naphthalene	26.5	0.036	0.018	
Acenaphthylene	10.3	0.036	0.018	
Acenaphthene	49.4 B	0.036	0.018	
Dibenzofuran	4.28 B	0.036	0.018	
Fluorene	28.9 B	0.036	0.018	
C1 - Fluorene	22.7	0.036	0.018	
C2 - Fluorene	18.0	0.036	0.018	
C3 - Fluorene	8.55	0.036	0.018	
Phenanthrene	81.8 B	0.036	0.018	
Anthracene	30.7 B	0.036	0.018	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-06-D	Analysis Method:	EPA 8270M
File ID:	E111213.D	Matrix:	Soil
Date Sampled:	10/30/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.76
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	71.3 B	0.036	0.018	
C2 - Phenanthrene/Anthracene	31.3	0.036	0.018	
C3 - Phenanthrene/Anthracene	8.63	0.036	0.018	
C4 - Phenanthrene/Anthracene	1.94	0.036	0.018	
Dibenzothiophene	9.88 B	0.036	0.018	
C1 - Dibenzothiophene	14.1	0.036	0.018	
C2 - Dibenzothiophene	11.7	0.036	0.018	
C3 - Dibenzothiophene	5.32	0.036	0.018	
C4 - Dibenzothiophene	1.63	0.036	0.018	
Benzo(b)naphtho(2,1-d)thiophene	2.04	0.036	0.018	
Fluoranthene	22.7 B	0.036	0.018	
Pyrene	34.8 B	0.036	0.018	
C1 - Fluoranthene/Pyrene	34.1	0.036	0.018	
C2 - Fluoranthene/Pyrene	9.69	0.036	0.018	
C3 - Fluoranthene/Pyrene	2.62	0.036	0.018	
Benz[a]anthracene	11.9 B	0.036	0.018	
Chrysene*	11.6 B	0.036	0.018	
C1 - Benz(a)anthracene/Chrysene	8.96	0.036	0.018	
C2 - Benz(a)anthracene/Chrysene	2.96	0.036	0.018	
C3 - Benz(a)anthracene/Chrysene	0.604	0.036	0.018	
C4 - Benz(a)anthracene/Chrysene	0.261	0.036	0.018	
Benzo[b]fluoranthene	3.26	0.036	0.018	
Benzo[j/k]fluoranthene	4.67	0.036	0.018	
Benzo(e)pyrene	3.82	0.036	0.018	
Benzo[a]pyrene	8.0	0.036	0.018	
Perylene	1.08	0.036	0.018	
Indeno[1,2,3-cd]pyrene	2.12	0.036	0.018	
Dibenz[a,h]anthracene	0.886	0.036	0.018	
Benzo[g,h,i]perylene	2.45	0.036	0.018	
Coronene	0.574	0.036	0.018	
Retene	U	0.036	0.018	
Benzo(b/c)fluorenes	4.92	0.036	0.018	
2-Methylpyrene	4.57	0.036	0.018	
4-Methylpyrene	3.87	0.036	0.018	
1-Methylpyrene	5.28	0.036	0.018	
Heptadecane	36.7 B	0.036	0.018	
Pristane	54.7	0.036	0.018	
Octadecane	BU	0.036	0.018	
Phytane	26.4	0.036	0.018	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 111/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-06-D	Analysis Method:	EPA 8270M
File ID:	E111213.D	Matrix:	Soil
Date Sampled:	10/30/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.76
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	20.2	0.036	0.018	
2,6,10-trimethyltridecane	26.0	0.036	0.018	
Norpristane	21.8	0.036	0.018	
Tetraethyl lead	U	0.036	0.018	
Total PAH (16)	417	0.036	0.018	
Total PAH (42)	1,040	0.036	0.018	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	100	50 - 120
Phenanthrene-d10	93	50 - 120
Perylene-d12	80	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 112/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-07-D	Analysis Method:	EPA 8270M
File ID:	E111216.D	Matrix:	Soil
Date Sampled:	10/31/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.44
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.162 B	0.041	0.021
Toluene	0.048 B	0.041	0.021
Ethylbenzene	6.98	0.041	0.021
m/p-Xylenes	0.374	0.041	0.021
Styrene	0.734 B	0.041	0.021
o-Xylene	3.06	0.041	0.021
Isopropylbenzene	2.1	0.041	0.021
n-Propylbenzene	2.88	0.041	0.021
1,3,5-Trimethylbenzene	1.21	0.041	0.021
1,2,4-Trimethylbenzene	18.0	0.041	0.021
t-Butylbenzene	U	0.041	0.021
sec-Butylbenzene	2.38	0.041	0.021
p-Isopropyltoluene	1.28	0.041	0.021
n-Butylbenzene	3.84	0.041	0.021
C1 - Benzene	0.026 JB	0.041	0.021
C2 - Benzene	4.05	0.041	0.021
C3 - Benzene	19.2	0.041	0.021
C4 - Benzene	30.0	0.041	0.021
C5 - Benzene	23.8	0.041	0.021
trans-Decalin	6.17	0.041	0.021
cis-Decalin	0.495	0.041	0.021
Naphthalene	40.3 B	0.041	0.021
2-Methylnaphthalene	79.8 B	0.041	0.021
1-Methylnaphthalene	48.8 B	0.041	0.021
C1 - Naphthalene	80.3 B	0.041	0.021
C2 - Naphthalene	110 B	0.041	0.021
C3- Naphthalene	75.3 B	0.041	0.021
C4- Naphthalene	32.9	0.041	0.021
Acenaphthylene	3.92	0.041	0.021
Acenaphthene	15.2 B	0.041	0.021
Dibenzofuran	2.75 B	0.041	0.021
Fluorene	11.3 B	0.041	0.021
C1 - Fluorene	14.2	0.041	0.021
C2 - Fluorene	16.6	0.041	0.021
C3 - Fluorene	9.76	0.041	0.021
Phenanthrene	31.1 B	0.041	0.021
Anthracene	9.4 B	0.041	0.021

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 112/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-07-D	Analysis Method:	EPA 8270M
File ID:	E111216.D	Matrix:	Soil
Date Sampled:	10/31/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.44
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	38.5 B	0.041	0.021	
C2 - Phenanthrene/Anthracene	24.4	0.041	0.021	
C3 - Phenanthrene/Anthracene	8.55	0.041	0.021	
C4 - Phenanthrene/Anthracene	2.11	0.041	0.021	
Dibenzothiophene	4.61 B	0.041	0.021	
C1 - Dibenzothiophene	9.26	0.041	0.021	
C2 - Dibenzothiophene	10.0	0.041	0.021	
C3 - Dibenzothiophene	5.63	0.041	0.021	
C4 - Dibenzothiophene	1.94	0.041	0.021	
Benzo(b)naphtho(2,1-d)thiophene	0.658	0.041	0.021	
Fluoranthene	6.51 B	0.041	0.021	
Pyrene	11.1 B	0.041	0.021	
C1 - Fluoranthene/Pyrene	11.1	0.041	0.021	
C2 - Fluoranthene/Pyrene	3.62	0.041	0.021	
C3 - Fluoranthene/Pyrene	1.09	0.041	0.021	
Benz[a]anthracene	3.33 B	0.041	0.021	
Chrysene*	3.31 B	0.041	0.021	
C1 - Benz(a)anthracene/Chrysene	2.61	0.041	0.021	
C2 - Benz(a)anthracene/Chrysene	0.910	0.041	0.021	
C3 - Benz(a)anthracene/Chrysene	0.227	0.041	0.021	
C4 - Benz(a)anthracene/Chrysene	U	0.041	0.021	
Benzo[b]fluoranthene	0.895	0.041	0.021	
Benzo[j/k]fluoranthene	1.2	0.041	0.021	
Benzo(e)pyrene	1.06	0.041	0.021	
Benzo[a]pyrene	2.12	0.041	0.021	
Perylene	0.305	0.041	0.021	
Indeno[1,2,3-cd]pyrene	0.570	0.041	0.021	
Dibenz[a,h]anthracene	0.234	0.041	0.021	
Benzo[g,h,i]perylene	0.691	0.041	0.021	
Coronene	0.144	0.041	0.021	
Retene	U	0.041	0.021	
Benzo(b/c)fluorenes	1.44	0.041	0.021	
2-Methylpyrene	1.7	0.041	0.021	
4-Methylpyrene	1.52	0.041	0.021	
1-Methylpyrene	1.73	0.041	0.021	
Heptadecane	BU	0.041	0.021	
Pristane	70.4	0.041	0.021	
Octadecane	BU	0.041	0.021	
Phytane	35.9	0.041	0.021	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 112/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-07-D	Analysis Method:	EPA 8270M
File ID:	E111216.D	Matrix:	Soil
Date Sampled:	10/31/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.44
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	26.3	0.041	0.021	
2,6,10-trimethyltridecane	34.1	0.041	0.021	
Norpristane	27.6	0.041	0.021	
Tetraethyl lead	U	0.041	0.021	
Total PAH (16)	141	0.041	0.021	
Total PAH (42)	609	0.041	0.021	

Extraction Surrogate Recoveries (%)	Limits
Toluene-d8	88 50 - 120
Phenanthrene-d10	89 50 - 120
Perylene-d12	66 50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: HISB - 112/32-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-08-D		
File ID:	E111217.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.81
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.152 B	0.036	0.018	
Toluene	0.076 B	0.036	0.018	
Ethylbenzene	4.97	0.036	0.018	
m/p-Xylenes	2.58	0.036	0.018	
Styrene	0.895 B	0.036	0.018	
o-Xylene	5.63	0.036	0.018	
Isopropylbenzene	1.82	0.036	0.018	
n-Propylbenzene	2.35	0.036	0.018	
1,3,5-Trimethylbenzene	4.36	0.036	0.018	
1,2,4-Trimethylbenzene	15.8	0.036	0.018	
t-Butylbenzene	2.68	0.036	0.018	
sec-Butylbenzene	1.84	0.036	0.018	
p-Isopropyltoluene	3.01	0.036	0.018	
n-Butylbenzene	3.81	0.036	0.018	
C1 - Benzene	0.054 B	0.036	0.018	
C2 - Benzene	5.42	0.036	0.018	
C3 - Benzene	19.3	0.036	0.018	
C4 - Benzene	28.0	0.036	0.018	
C5 - Benzene	21.1	0.036	0.018	
trans-Decalin	5.26	0.036	0.018	
cis-Decalin	0.461	0.036	0.018	
Naphthalene	74.1 B	0.036	0.018	
2-Methylnaphthalene	110 B	0.036	0.018	
1-Methylnaphthalene	69.1 B	0.036	0.018	
C1 - Naphthalene	112 B	0.036	0.018	
C2 - Naphthalene	124 B	0.036	0.018	
C3- Naphthalene	74.8 B	0.036	0.018	
C4- Naphthalene	30.6	0.036	0.018	
Acenaphthylene	8.08	0.036	0.018	
Acenaphthene	33.4 B	0.036	0.018	
Dibenzofuran	3.7 B	0.036	0.018	
Fluorene	21.3 B	0.036	0.018	
C1 - Fluorene	19.6	0.036	0.018	
C2 - Fluorene	18.1	0.036	0.018	
C3 - Fluorene	9.07	0.036	0.018	
Phenanthrene	62.0 B	0.036	0.018	
Anthracene	21.7 B	0.036	0.018	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 112/32-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-08-D		
File ID:	E111217.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.81
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	61.2 B	0.036	0.018	
C2 - Phenanthrene/Anthracene	30.0	0.036	0.018	
C3 - Phenanthrene/Anthracene	8.82	0.036	0.018	
C4 - Phenanthrene/Anthracene	2.07	0.036	0.018	
Dibenzothiophene	8.23 B	0.036	0.018	
C1 - Dibenzothiophene	13.1	0.036	0.018	
C2 - Dibenzothiophene	11.3	0.036	0.018	
C3 - Dibenzothiophene	5.29	0.036	0.018	
C4 - Dibenzothiophene	1.61	0.036	0.018	
Benzo(b)naphtho(2,1-d)thiophene	1.62	0.036	0.018	
Fluoranthene	15.8 B	0.036	0.018	
Pyrene	25.1 B	0.036	0.018	
C1 - Fluoranthene/Pyrene	26.1	0.036	0.018	
C2 - Fluoranthene/Pyrene	7.84	0.036	0.018	
C3 - Fluoranthene/Pyrene	2.07	0.036	0.018	
Benz[a]anthracene	8.53 B	0.036	0.018	
Chrysene*	8.49 B	0.036	0.018	
C1 - Benz(a)anthracene/Chrysene	6.85	0.036	0.018	
C2 - Benz(a)anthracene/Chrysene	2.32	0.036	0.018	
C3 - Benz(a)anthracene/Chrysene	0.537	0.036	0.018	
C4 - Benz(a)anthracene/Chrysene	U	0.036	0.018	
Benzo[b]fluoranthene	2.25	0.036	0.018	
Benzo[j/k]fluoranthene	3.21	0.036	0.018	
Benzo(e)pyrene	2.77	0.036	0.018	
Benzo[a]pyrene	5.69	0.036	0.018	
Perylene	0.766	0.036	0.018	
Indeno[1,2,3-cd]pyrene	1.45	0.036	0.018	
Dibenz[a,h]anthracene	0.587	0.036	0.018	
Benzo[g,h,i]perylene	1.74	0.036	0.018	
Coronene	0.407	0.036	0.018	
Retene	U	0.036	0.018	
Benzo(b/c)fluorenes	3.58	0.036	0.018	
2-Methylpyrene	3.75	0.036	0.018	
4-Methylpyrene	3.14	0.036	0.018	
1-Methylpyrene	4.07	0.036	0.018	
Heptadecane	BU	0.036	0.018	
Pristane	63.9	0.036	0.018	
Octadecane	BU	0.036	0.018	
Phytane	30.4	0.036	0.018	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 112/32-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-08-D	Analysis Method:	EPA 8270M
File ID:	E111217.D	Matrix:	Soil
Date Sampled:	10/31/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.81
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/13/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	10
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	22.8	0.036	0.018	
2,6,10-trimethyltridecane	31.1	0.036	0.018	
Norpristane	24.5	0.036	0.018	
Tetraethyl lead	U	0.036	0.018	
Total PAH (16)	293	0.036	0.018	
Total PAH (42)	876	0.036	0.018	

Extraction Surrogate Recoveries (%)	Limits
Toluene-d8	99
Phenanthrene-d10	101
Perylene-d12	80

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-09		
File ID:	E111116.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.027 B	0.004	0.002	
Toluene	0.009 B	0.004	0.002	
Ethylbenzene	0.256	0.004	0.002	
m/p-Xylenes	0.024	0.004	0.002	
Styrene	0.005 B	0.004	0.002	
o-Xylene	0.021	0.004	0.002	
Isopropylbenzene	0.329	0.004	0.002	
n-Propylbenzene	0.711	0.004	0.002	
1,3,5-Trimethylbenzene	0.009	0.004	0.002	
1,2,4-Trimethylbenzene	2.72	0.004	0.002	
t-Butylbenzene	U	0.004	0.002	
sec-Butylbenzene	0.906	0.004	0.002	
p-Isopropyltoluene	0.877	0.004	0.002	
n-Butylbenzene	1.34	0.004	0.002	
C1 - Benzene	0.005 B	0.004	0.002	
C2 - Benzene	0.119	0.004	0.002	
C3 - Benzene	2.42	0.004	0.002	
C4 - Benzene	10.8	0.004	0.002	
C5 - Benzene	9.96	0.004	0.002	
trans-Decalin	2.35	0.004	0.002	
cis-Decalin	0.236	0.004	0.002	
Naphthalene	3.56 B	0.004	0.002	
2-Methylnaphthalene	4.54 B	0.004	0.002	
1-Methylnaphthalene	12.0 B	0.004	0.002	
C1 - Naphthalene	2.81 B	0.004	0.002	
C2 - Naphthalene	36.9 B	0.004	0.002	
C3- Naphthalene	30.2 B	0.004	0.002	
C4- Naphthalene	14.3	0.004	0.002	
Acenaphthylene	U	0.004	0.002	
Acenaphthene	1.21 B	0.004	0.002	
Dibenzofuran	0.894 B	0.004	0.002	
Fluorene	2.34 B	0.004	0.002	
C1 - Fluorene	4.76	0.004	0.002	
C2 - Fluorene	6.93	0.004	0.002	
C3 - Fluorene	4.29	0.004	0.002	
Phenanthrene	4.71 B	0.004	0.002	
Anthracene	0.635 B	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-09		
File ID:	E111116.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	10.2 B	0.004	0.002	
C2 - Phenanthrene/Anthracene	9.03	0.004	0.002	
C3 - Phenanthrene/Anthracene	3.62	0.004	0.002	
C4 - Phenanthrene/Anthracene	0.914	0.004	0.002	
Dibenzothiophene	0.953 B	0.004	0.002	
C1 - Dibenzothiophene	2.54	0.004	0.002	
C2 - Dibenzothiophene	3.02	0.004	0.002	
C3 - Dibenzothiophene	1.84	0.004	0.002	
C4 - Dibenzothiophene	0.673	0.004	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.019	0.004	0.002	
Fluoranthene	0.125 B	0.004	0.002	
Pyrene	0.682 B	0.004	0.002	
C1 - Fluoranthene/Pyrene	0.985	0.004	0.002	
C2 - Fluoranthene/Pyrene	0.513	0.004	0.002	
C3 - Fluoranthene/Pyrene	0.172	0.004	0.002	
Benz[a]anthracene	0.017 B	0.004	0.002	
Chrysene*	0.042 B	0.004	0.002	
C1 - Benz(a)anthracene/Chrysene	0.051	0.004	0.002	
C2 - Benz(a)anthracene/Chrysene	0.031	0.004	0.002	
C3 - Benz(a)anthracene/Chrysene	U	0.004	0.002	
C4 - Benz(a)anthracene/Chrysene	U	0.004	0.002	
Benzo[b]fluoranthene	U	0.004	0.002	
Benzo[j/k]fluoranthene	U	0.004	0.002	
Benzo(e)pyrene	0.002 J	0.004	0.002	
Benzo[a]pyrene	0.002 J	0.004	0.002	
Perylene	U	0.004	0.002	
Indeno[1,2,3-cd]pyrene	U	0.004	0.002	
Dibenz[a,h]anthracene	U	0.004	0.002	
Benzo[g,h,i]perylene	U	0.004	0.002	
Coronene	U	0.004	0.002	
Retene	U	0.004	0.002	
Benzo(b/c)fluorenes	0.058	0.004	0.002	
2-Methylpyrene	0.234	0.004	0.002	
4-Methylpyrene	0.210	0.004	0.002	
1-Methylpyrene	0.179	0.004	0.002	
Heptadecane	BU	0.004	0.002	
Pristane	39.4 D	0.004	0.002	
Octadecane	BU	0.004	0.002	
Phytane	20.4 D	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/25-30

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-09		
File ID:	E111116.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.69
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	9.33	0.004	0.002	
2,6,10-trimethyltridecane	12.6	0.004	0.002	
Norpristane	11.1	0.004	0.002	
Tetraethyl lead	U	0.004	0.002	
Total PAH (16)	13.3	0.004	0.002	
Total PAH (42)	149	0.004	0.002	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	83	50 - 120
Phenanthrene-d10	87	50 - 120
Perylene-d12	64	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-10		
File ID:	E111117.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.49
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.030 B	0.004	0.002	
Toluene	0.010 B	0.004	0.002	
Ethylbenzene	0.729	0.004	0.002	
m/p-Xylenes	0.679	0.004	0.002	
Styrene	0.009 B	0.004	0.002	
o-Xylene	0.019	0.004	0.002	
Isopropylbenzene	0.792	0.004	0.002	
n-Propylbenzene	1.64	0.004	0.002	
1,3,5-Trimethylbenzene	2.12	0.004	0.002	
1,2,4-Trimethylbenzene	7.9	0.004	0.002	
t-Butylbenzene	U	0.004	0.002	
sec-Butylbenzene	1.52	0.004	0.002	
p-Isopropyltoluene	1.74	0.004	0.002	
n-Butylbenzene	2.86	0.004	0.002	
C1 - Benzene	0.005 B	0.004	0.002	
C2 - Benzene	0.624	0.004	0.002	
C3 - Benzene	11.8	0.004	0.002	
C4 - Benzene	21.9	0.004	0.002	
C5 - Benzene	17.2	0.004	0.002	
trans-Decalin	3.95	0.004	0.002	
cis-Decalin	0.361	0.004	0.002	
Naphthalene	7.83 B	0.004	0.002	
2-Methylnaphthalene	25.2 B	0.004	0.002	
1-Methylnaphthalene	16.5 B	0.004	0.002	
C1 - Naphthalene	26.0 B	0.004	0.002	
C2 - Naphthalene	50.7 B	0.004	0.002	
C3- Naphthalene	42.4 B	0.004	0.002	
C4- Naphthalene	20.5	0.004	0.002	
Acenaphthylene	U	0.004	0.002	
Acenaphthene	1.65 B	0.004	0.002	
Dibenzofuran	1.36 B	0.004	0.002	
Fluorene	3.23 B	0.004	0.002	
C1 - Fluorene	6.68	0.004	0.002	
C2 - Fluorene	9.45	0.004	0.002	
C3 - Fluorene	5.9	0.004	0.002	
Phenanthrene	6.43 B	0.004	0.002	
Anthracene	0.862 B	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-10		
File ID:	E111117.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.49
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	14.0 B	0.004	0.002	
C2 - Phenanthrene/Anthracene	11.9	0.004	0.002	
C3 - Phenanthrene/Anthracene	4.68	0.004	0.002	
C4 - Phenanthrene/Anthracene	1.16	0.004	0.002	
Dibenzothiophene	1.35 B	0.004	0.002	
C1 - Dibenzothiophene	3.5	0.004	0.002	
C2 - Dibenzothiophene	4.03	0.004	0.002	
C3 - Dibenzothiophene	2.32	0.004	0.002	
C4 - Dibenzothiophene	0.809	0.004	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.028	0.004	0.002	
Fluoranthene	0.184 B	0.004	0.002	
Pyrene	0.870 B	0.004	0.002	
C1 - Fluoranthene/Pyrene	1.22	0.004	0.002	
C2 - Fluoranthene/Pyrene	0.605	0.004	0.002	
C3 - Fluoranthene/Pyrene	0.209	0.004	0.002	
Benz[a]anthracene	0.033 B	0.004	0.002	
Chrysene*	0.062 B	0.004	0.002	
C1 - Benz(a)anthracene/Chrysene	0.069	0.004	0.002	
C2 - Benz(a)anthracene/Chrysene	0.037	0.004	0.002	
C3 - Benz(a)anthracene/Chrysene	0.016	0.004	0.002	
C4 - Benz(a)anthracene/Chrysene	U	0.004	0.002	
Benzo[b]fluoranthene	0.007	0.004	0.002	
Benzo[j/k]fluoranthene	0.007	0.004	0.002	
Benzo(e)pyrene	0.008	0.004	0.002	
Benzo[a]pyrene	0.011	0.004	0.002	
Perylene	0.002 J	0.004	0.002	
Indeno[1,2,3-cd]pyrene	0.004 J	0.004	0.002	
Dibenz[a,h]anthracene	U	0.004	0.002	
Benzo[g,h,i]perylene	0.005	0.004	0.002	
Coronene	U	0.004	0.002	
Retene	U	0.004	0.002	
Benzo(b/c)fluorenes	0.080	0.004	0.002	
2-Methylpyrene	0.289	0.004	0.002	
4-Methylpyrene	0.254	0.004	0.002	
1-Methylpyrene	0.218	0.004	0.002	
Heptadecane	BU	0.004	0.002	
Pristane	57.2 D	0.004	0.002	
Octadecane	BU	0.004	0.002	
Phytane	27.5 D	0.004	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB - 113/30-35

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-10		
File ID:	E111117.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	10/31/2008	Decanted:	None
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.49
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	20.4 D	0.004	0.002	
2,6,10-trimethyltridecane	27.7 D	0.004	0.002	
Norpristane	21.6 D	0.004	0.002	
Tetraethyl lead	U	0.004	0.002	
Total PAH (16)	21.2	0.004	0.002	
Total PAH (42)	230	0.004	0.002	

Extraction Surrogate Recoveries (%)	Limits
Toluene-d8	88 50 - 120
Phenanthrene-d10	89 50 - 120
Perylene-d12	65 50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SB		
File ID:	E111104.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.005	0.003	0.001
Toluene	0.007	0.003	0.001
Ethylbenzene	U	0.003	0.001
m/p-Xylenes	U	0.003	0.001
Styrene	0.010	0.003	0.001
o-Xylene	U	0.003	0.001
Isopropylbenzene	U	0.003	0.001
n-Propylbenzene	U	0.003	0.001
1,3,5-Trimethylbenzene	U	0.003	0.001
1,2,4-Trimethylbenzene	U	0.003	0.001
t-Butylbenzene	U	0.003	0.001
sec-Butylbenzene	U	0.003	0.001
p-Isopropyltoluene	U	0.003	0.001
n-Butylbenzene	U	0.003	0.001
C1 - Benzene	0.004	0.003	0.001
C2 - Benzene	U	0.003	0.001
C3 - Benzene	U	0.003	0.001
C4 - Benzene	U	0.003	0.001
C5 - Benzene	U	0.003	0.001
trans-Decalin	U	0.003	0.001
cis-Decalin	U	0.003	0.001
Naphthalene	0.012	0.003	0.001
2-Methylnaphthalene	0.004	0.003	0.001
1-Methylnaphthalene	0.005	0.003	0.001
C1 - Naphthalene	0.006	0.003	0.001
C2 - Naphthalene	0.009	0.003	0.001
C3- Naphthalene	0.005	0.003	0.001
C4- Naphthalene	U	0.003	0.001
Acenaphthylene	U	0.003	0.001
Acenaphthene	0.006	0.003	0.001
Dibenzofuran	0.010	0.003	0.001
Fluorene	0.007	0.003	0.001
C1 - Fluorene	U	0.003	0.001
C2 - Fluorene	U	0.003	0.001
C3 - Fluorene	U	0.003	0.001
Phenanthrene	0.019	0.003	0.001
Anthracene	0.006	0.003	0.001

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SB		
File ID:	E111104.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.005	0.003	0.001	
C2 - Phenanthrene/Anthracene	U	0.003	0.001	
C3 - Phenanthrene/Anthracene	U	0.003	0.001	
C4 - Phenanthrene/Anthracene	U	0.003	0.001	
Dibenzothiophene	0.002 J	0.003	0.001	
C1 - Dibenzothiophene	U	0.003	0.001	
C2 - Dibenzothiophene	U	0.003	0.001	
C3 - Dibenzothiophene	U	0.003	0.001	
C4 - Dibenzothiophene	U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene	U	0.003	0.001	
Fluoranthene	0.006	0.003	0.001	
Pyrene	0.004	0.003	0.001	
C1 - Fluoranthene/Pyrene	U	0.003	0.001	
C2 - Fluoranthene/Pyrene	U	0.003	0.001	
C3 - Fluoranthene/Pyrene	U	0.003	0.001	
Benz[a]anthracene	0.002 J	0.003	0.001	
Chrysene*	0.001 J	0.003	0.001	
C1 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
Benzo[b]fluoranthene	U	0.003	0.001	
Benzo[j/k]fluoranthene	U	0.003	0.001	
Benzo(e)pyrene	U	0.003	0.001	
Benzo[a]pyrene	U	0.003	0.001	
Perylene	U	0.003	0.001	
Indeno[1,2,3-cd]pyrene	U	0.003	0.001	
Dibenz[a,h]anthracene	U	0.003	0.001	
Benzo[g,h,i]perylene	U	0.003	0.001	
Coronene	U	0.003	0.001	
Retene	U	0.003	0.001	
Benzo(b/c)fluorenes	U	0.003	0.001	
2-Methylpyrene	U	0.003	0.001	
4-Methylpyrene	U	0.003	0.001	
1-Methylpyrene	U	0.003	0.001	
Heptadecane	0.007	0.003	0.001	
Pristane	U	0.003	0.001	
Octadecane	0.006	0.003	0.001	
Phytane	U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SB		
File ID:	E111104.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	NA		
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	
Tetraethyl lead	U	0.003	0.001	
Total PAH (16)	0.063	0.003	0.001	
Total PAH (42)	0.100	0.003	0.001	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	89	50 - 120
Phenanthrene-d10	78	50 - 120
Perylene-d12	65	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SBS		
File ID:	E111105.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount				% Recovery
Benzene	1.25	0.991 B	0.003	0.001	79
Toluene	1.25	1.21 B	0.003	0.001	97
Ethylbenzene	1.25	1.24	0.003	0.001	99
m/p-Xylenes	1.25	1.23	0.003	0.001	98
Styrene	1.25	1.27 B	0.003	0.001	102
o-Xylene	1.25	1.26	0.003	0.001	101
Isopropylbenzene	1.25	1.29	0.003	0.001	103
n-Propylbenzene	1.25	1.27	0.003	0.001	102
1,3,5-Trimethylbenzene	1.25	1.29	0.003	0.001	103
1,2,4-Trimethylbenzene	1.25	1.3	0.003	0.001	104
t-Butylbenzene		U	0.003	0.001	
sec-Butylbenzene	1.25	1.3	0.003	0.001	104
p-Isopropyltoluene	1.25	1.34	0.003	0.001	107
n-Butylbenzene	1.25	1.3	0.003	0.001	104
C1 - Benzene		BU	0.003	0.001	
C2 - Benzene		U	0.003	0.001	
C3 - Benzene		U	0.003	0.001	
C4 - Benzene		U	0.003	0.001	
C5 - Benzene		U	0.003	0.001	
trans-Decalin		U	0.003	0.001	
cis-Decalin		U	0.003	0.001	
Naphthalene	1.25	1.72 B	0.003	0.001	138
2-Methylnaphthalene	1.25	1.5 B	0.003	0.001	120
1-Methylnaphthalene	1.25	1.42 B	0.003	0.001	114
C1 - Naphthalene		BU	0.003	0.001	
C2 - Naphthalene		BU	0.003	0.001	
C3- Naphthalene		BU	0.003	0.001	
C4- Naphthalene		U	0.003	0.001	
Acenaphthylene	1.25	1.34	0.003	0.001	107
Acenaphthene	1.25	1.4 B	0.003	0.001	112
Dibenzofuran	1.25	1.38 B	0.003	0.001	110
Fluorene	1.25	1.39 B	0.003	0.001	111
C1 - Fluorene		U	0.003	0.001	
C2 - Fluorene		U	0.003	0.001	
C3 - Fluorene		U	0.003	0.001	
Phenanthrene	1.25	1.34 B	0.003	0.001	107
Anthracene	1.25	1.35 B	0.003	0.001	108

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SBS		
File ID:	E111105.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		BU	0.003	0.001	
C2 - Phenanthrene/Anthracene		U	0.003	0.001	
C3 - Phenanthrene/Anthracene		U	0.003	0.001	
C4 - Phenanthrene/Anthracene		U	0.003	0.001	
Dibenzothiophene	1.25	1.32 B	0.003	0.001	106
C1 - Dibenzothiophene		U	0.003	0.001	
C2 - Dibenzothiophene		U	0.003	0.001	
C3 - Dibenzothiophene		U	0.003	0.001	
C4 - Dibenzothiophene		U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene		U	0.003	0.001	
Fluoranthene	1.25	1.28 B	0.003	0.001	102
Pyrene	1.25	1.27 B	0.003	0.001	102
C1 - Fluoranthene/Pyrene		U	0.003	0.001	
C2 - Fluoranthene/Pyrene		U	0.003	0.001	
C3 - Fluoranthene/Pyrene		U	0.003	0.001	
Benz[a]anthracene	1.25	1.12 B	0.003	0.001	90
Chrysene*	1.25	1.12 B	0.003	0.001	90
C1 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
Benzo[b]fluoranthene	1.25	1.09	0.003	0.001	87
Benzo[j/k]fluoranthene	1.25	1.17	0.003	0.001	94
Benzo(e)pyrene	1.25	1.06	0.003	0.001	85
Benzo[a]pyrene	1.25	1.06	0.003	0.001	85
Perylene		U	0.003	0.001	
Indeno[1,2,3-cd]pyrene	1.25	1.13	0.003	0.001	90
Dibenz[a,h]anthracene	1.25	1.19	0.003	0.001	95
Benzo[g,h,i]perylene	1.25	1.07	0.003	0.001	86
Coronene		U	0.003	0.001	
Retene		U	0.003	0.001	
Benzo(b/c)fluorenes		U	0.003	0.001	
2-Methylpyrene		U	0.003	0.001	
4-Methylpyrene		U	0.003	0.001	
1-Methylpyrene		U	0.003	0.001	
Heptadecane		BU	0.003	0.001	
Pristane		U	0.003	0.001	
Octadecane		BU	0.003	0.001	
Phytane		U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081105-SBS		
File ID:	E111105.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/5/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	
Tetraethyl lead	U	0.003	0.001	
<i>Extraction Surrogate Recoveries (%)</i>		<i>Limits</i>		
Toluene-d8	93	50 - 120		
Phenanthrene-d10	84	50 - 120		
Perylene-d12	69	50 - 120		

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-02DUP		
File ID:	E111107.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	10/30/2008		
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.61
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				RPD
Benzene	0.060 B	0.004	0.002	1.7
Toluene	0.142 B	0.004	0.002	6.5
Ethylbenzene	9.68	0.004	0.002	14.9
m/p-Xylenes	8.13	0.004	0.002	15.2
Styrene	1.73 B	0.004	0.002	7.8
o-Xylene	6.16	0.004	0.002	15.8
Isopropylbenzene	1.14	0.004	0.002	13.9
n-Propylbenzene	0.710	0.004	0.002	14
1,3,5-Trimethylbenzene	2.7	0.004	0.002	13
1,2,4-Trimethylbenzene	5.16	0.004	0.002	13
t-Butylbenzene	U	0.004	0.002	NA
sec-Butylbenzene	0.174	0.004	0.002	14.8
p-Isopropyltoluene	0.686	0.004	0.002	12.2
n-Butylbenzene	0.678	0.004	0.002	12.7
C1 - Benzene	0.091 B	0.004	0.002	12.9
C2 - Benzene	13.1	0.004	0.002	15.6
C3 - Benzene	10.7	0.004	0.002	13.6
C4 - Benzene	5.15	0.004	0.002	11.9
C5 - Benzene	3.4	0.004	0.002	11.5
trans-Decalin	1.15	0.004	0.002	11
cis-Decalin	0.077	0.004	0.002	2.6
Naphthalene	29.4 DB	0.004	0.002	11.1
2-Methylnaphthalene	27.8 DB	0.004	0.002	9.8
1-Methylnaphthalene	18.3 DB	0.004	0.002	10.3
C1 - Naphthalene	28.8 DB	0.004	0.002	10.2
C2 - Naphthalene	26.6 B	0.004	0.002	12
C3- Naphthalene	23.8 B	0.004	0.002	11.1
C4- Naphthalene	12.4	0.004	0.002	11.1
Acenaphthylene	2.53	0.004	0.002	13.1
Acenaphthene	6.44 B	0.004	0.002	11
Dibenzofuran	1.08 B	0.004	0.002	12.3
Fluorene	5.69 B	0.004	0.002	10.5
C1 - Fluorene	6.1	0.004	0.002	14.8
C2 - Fluorene	6.43	0.004	0.002	12.2
C3 - Fluorene	3.81	0.004	0.002	13.4
Phenanthrene	13.4 B	0.004	0.002	15.3
Anthracene	5.13 B	0.004	0.002	11.1

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081104-02DUP		
File ID:	E111107.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	10/30/2008		
Date Received:	11/4/2008		
Date Prepared:	11/5/2008	Sample Size (g):	2.61
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081105-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	16.1 B	0.004	0.002	11.8
C2 - Phenanthrene/Anthracene	10.5	0.004	0.002	11.6
C3 - Phenanthrene/Anthracene	4.2	0.004	0.002	10.5
C4 - Phenanthrene/Anthracene	1.13	0.004	0.002	6.4
Dibenzothiophene	2.56 B	0.004	0.002	11.6
C1 - Dibenzothiophene	4.75	0.004	0.002	12.1
C2 - Dibenzothiophene	5.15	0.004	0.002	11.7
C3 - Dibenzothiophene	3.06	0.004	0.002	12.5
C4 - Dibenzothiophene	1.17	0.004	0.002	14.7
Benzo(b)naphtho(2,1-d)thiophene	0.468	0.004	0.002	11.3
Fluoranthene	4.2 B	0.004	0.002	11.1
Pyrene	6.5 B	0.004	0.002	11.2
C1 - Fluoranthene/Pyrene	7.4	0.004	0.002	11.7
C2 - Fluoranthene/Pyrene	2.74	0.004	0.002	10.8
C3 - Fluoranthene/Pyrene	0.963	0.004	0.002	8.6
Benz[a]anthracene	2.35 B	0.004	0.002	10.8
Chrysene*	2.39 B	0.004	0.002	12.9
C1 - Benz(a)anthracene/Chrysene	2.14	0.004	0.002	9.8
C2 - Benz(a)anthracene/Chrysene	0.897	0.004	0.002	12.8
C3 - Benz(a)anthracene/Chrysene	0.250	0.004	0.002	0.8
C4 - Benz(a)anthracene/Chrysene	0.144	0.004	0.002	28.6
Benzo[b]fluoranthene	0.804	0.004	0.002	11.9
Benzo[j/k]fluoranthene	1.06	0.004	0.002	10.4
Benzo(e)pyrene	0.956	0.004	0.002	10.3
Benzo[a]pyrene	1.8	0.004	0.002	9.9
Perylene	0.253	0.004	0.002	10.4
Indeno[1,2,3-cd]pyrene	0.536	0.004	0.002	10.4
Dibenz[a,h]anthracene	0.220	0.004	0.002	11
Benzo[g,h,i]perylene	0.625	0.004	0.002	10.1
Coronene	0.141	0.004	0.002	7.4
Retene	U	0.004	0.002	NA
Benzo(b/c)fluorenes	1.01	0.004	0.002	10.2
2-Methylpyrene	1.01	0.004	0.002	10.2
4-Methylpyrene	1.06	0.004	0.002	10
1-Methylpyrene	1.06	0.004	0.002	10.7
Heptadecane	BU	0.004	0.002	NA
Pristane	76.9 D	0.004	0.002	10.8
Octadecane	BU	0.004	0.002	NA
Phytane	48.0 D	0.004	0.002	11.7

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB - 110/20-25

Client:	H2M	Preparation Method:	EPA 3570
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081104-02DUP	Analysis Method:	EPA 8270M
File ID:	E111107.D	Matrix:	Soil
Date Sampled:	10/30/2008	Preservation:	None
Date Received:	11/4/2008	Decanted:	None
Date Prepared:	11/5/2008	Sample Size (g):	2.61
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/11/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
Batch QC:	QC081105-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	10.6 D	0.004	0.002	12
2,6,10-trimethyltridecane	19.0 D	0.004	0.002	11.1
Norpristane	28.8 D	0.004	0.002	6.8
Tetraethyl lead	U	0.004	0.002	NA
Total PAH (16)	83.1	0.004	0.002	11.9
Total PAH (42)	256	0.004	0.002	11.6

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	96	50 - 120
Phenanthrene-d10	95	50 - 120
Perylene-d12	79	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081107-03		
File ID:	E111206.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	11/5/2008	Decanted:	None
Date Received:	11/7/2008		
Date Prepared:	11/11/2008	Sample Size (g):	0.0158
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	2.93 B	0.633	0.316	
Toluene	3.49 B	0.633	0.316	
Ethylbenzene	240	0.633	0.316	
m/p-Xylenes	22.6	0.633	0.316	
Styrene	32.4 B	0.633	0.316	
o-Xylene	194	0.633	0.316	
Isopropylbenzene	93.2	0.633	0.316	
n-Propylbenzene	142	0.633	0.316	
1,3,5-Trimethylbenzene	61.7	0.633	0.316	
1,2,4-Trimethylbenzene	808	0.633	0.316	
t-Butylbenzene	U	0.633	0.316	
sec-Butylbenzene	121	0.633	0.316	
p-Isopropyltoluene	165	0.633	0.316	
n-Butylbenzene	204	0.633	0.316	
C1 - Benzene	2.24 B	0.633	0.316	
C2 - Benzene	186	0.633	0.316	
C3 - Benzene	965	0.633	0.316	
C4 - Benzene	1,660	0.633	0.316	
C5 - Benzene	1,340	0.633	0.316	
trans-Decalin	324	0.633	0.316	
cis-Decalin	28.0	0.633	0.316	
Naphthalene	1,670 B	0.633	0.316	
2-Methylnaphthalene	5,370 DB	0.633	0.316	
1-Methylnaphthalene	3,190 DB	0.633	0.316	
C1 - Naphthalene	5,340 DB	0.633	0.316	
C2 - Naphthalene	5,210 B	0.633	0.316	
C3- Naphthalene	3,830 B	0.633	0.316	
C4- Naphthalene	1,770	0.633	0.316	
Acenaphthylene	130 B	0.633	0.316	
Acenaphthene	720 B	0.633	0.316	
Dibenzofuran	139 B	0.633	0.316	
Fluorene	566 B	0.633	0.316	
C1 - Fluorene	734	0.633	0.316	
C2 - Fluorene	885	0.633	0.316	
C3 - Fluorene	526	0.633	0.316	
Phenanthrene	1,380 B	0.633	0.316	
Anthracene	441 B	0.633	0.316	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081107-03		
File ID:	E111206.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	11/5/2008	Decanted:	None
Date Received:	11/7/2008		
Date Prepared:	11/11/2008	Sample Size (g):	0.0158
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	1,910 B	0.633	0.316	
C2 - Phenanthrene/Anthracene	1,270	0.633	0.316	
C3 - Phenanthrene/Anthracene	448	0.633	0.316	
C4 - Phenanthrene/Anthracene	113	0.633	0.316	
Dibenzothiophene	231	0.633	0.316	
C1 - Dibenzothiophene	474	0.633	0.316	
C2 - Dibenzothiophene	500	0.633	0.316	
C3 - Dibenzothiophene	282	0.633	0.316	
C4 - Dibenzothiophene	98.1	0.633	0.316	
Benzo(b)naphtho(2,1-d)thiophene	34.6	0.633	0.316	
Fluoranthene	316 B	0.633	0.316	
Pyrene	530 B	0.633	0.316	
C1 - Fluoranthene/Pyrene	580	0.633	0.316	
C2 - Fluoranthene/Pyrene	194	0.633	0.316	
C3 - Fluoranthene/Pyrene	57.8	0.633	0.316	
Benz[a]anthracene	172	0.633	0.316	
Chrysene*	170	0.633	0.316	
C1 - Benz(a)anthracene/Chrysene	146	0.633	0.316	
C2 - Benz(a)anthracene/Chrysene	51.6	0.633	0.316	
C3 - Benz(a)anthracene/Chrysene	10.5	0.633	0.316	
C4 - Benz(a)anthracene/Chrysene	5.15	0.633	0.316	
Benzo[b]fluoranthene	49.3	0.633	0.316	
Benzo[j/k]fluoranthene	65.1	0.633	0.316	
Benzo(e)pyrene	56.3	0.633	0.316	
Benzo[a]pyrene	116	0.633	0.316	
Perylene	16.0	0.633	0.316	
Indeno[1,2,3-cd]pyrene	31.2	0.633	0.316	
Dibenz[a,h]anthracene	12.7	0.633	0.316	
Benzo[g,h,i]perylene	36.2	0.633	0.316	
Coronene	8.65	0.633	0.316	
Retene	U	0.633	0.316	
Benzo(b/c)fluorenes	74.9	0.633	0.316	
2-Methylpyrene	90.5	0.633	0.316	
4-Methylpyrene	76.2	0.633	0.316	
1-Methylpyrene	92.6	0.633	0.316	
Heptadecane	U	0.633	0.316	
Pristane	4,630 D	0.633	0.316	
Octadecane	U	0.633	0.316	
Phytane	2,330 D	0.633	0.316	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081107-03		
File ID:	E111206.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	11/5/2008		
Date Received:	11/7/2008		
Date Prepared:	11/11/2008	Sample Size (g):	0.0158
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
2,6,10-trimethyldodecane	1,300	0.633	0.316	
2,6,10-trimethyltridecane	1,690	0.633	0.316	
Norpristane	1,380	0.633	0.316	
Tetraethyl lead	U	0.633	0.316	
Total PAH (16)	6,400	0.633	0.316	
Total PAH (42)	31,300	0.633	0.316	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	104	50 - 120
Phenanthrene-d10	106	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081111-MB		
File ID:	E111204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	3.57	1.0	0.500	
Toluene	2.44	1.0	0.500	
Ethylbenzene	U	1.0	0.500	
m/p-Xylenes	U	1.0	0.500	
Styrene	8.17	1.0	0.500	
o-Xylene	U	1.0	0.500	
Isopropylbenzene	U	1.0	0.500	
n-Propylbenzene	U	1.0	0.500	
1,3,5-Trimethylbenzene	U	1.0	0.500	
1,2,4-Trimethylbenzene	U	1.0	0.500	
t-Butylbenzene	U	1.0	0.500	
sec-Butylbenzene	U	1.0	0.500	
p-Isopropyltoluene	U	1.0	0.500	
n-Butylbenzene	U	1.0	0.500	
C1 - Benzene	1.68	1.0	0.500	
C2 - Benzene	U	1.0	0.500	
C3 - Benzene	U	1.0	0.500	
C4 - Benzene	U	1.0	0.500	
C5 - Benzene	U	1.0	0.500	
trans-Decalin	U	1.0	0.500	
cis-Decalin	U	1.0	0.500	
Naphthalene	12.0	1.0	0.500	
2-Methylnaphthalene	3.92	1.0	0.500	
1-Methylnaphthalene	2.06	1.0	0.500	
C1 - Naphthalene	3.8	1.0	0.500	
C2 - Naphthalene	3.44	1.0	0.500	
C3- Naphthalene	1.31	1.0	0.500	
C4- Naphthalene	U	1.0	0.500	
Acenaphthylene	1.2	1.0	0.500	
Acenaphthene	0.560 J	1.0	0.500	
Dibenzofuran	1.31	1.0	0.500	
Fluorene	1.22	1.0	0.500	
C1 - Fluorene	U	1.0	0.500	
C2 - Fluorene	U	1.0	0.500	
C3 - Fluorene	U	1.0	0.500	
Phenanthrene	2.68	1.0	0.500	
Anthracene	0.773 J	1.0	0.500	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081111-MB		
File ID:	E111204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.944 J	1.0	0.500	
C2 - Phenanthrene/Anthracene	U	1.0	0.500	
C3 - Phenanthrene/Anthracene	U	1.0	0.500	
C4 - Phenanthrene/Anthracene	U	1.0	0.500	
Dibenzothiophene	U	1.0	0.500	
C1 - Dibenzothiophene	U	1.0	0.500	
C2 - Dibenzothiophene	U	1.0	0.500	
C3 - Dibenzothiophene	U	1.0	0.500	
C4 - Dibenzothiophene	U	1.0	0.500	
Benzo(b)naphtho(2,1-d)thiophene	U	1.0	0.500	
Fluoranthene	0.942 J	1.0	0.500	
Pyrene	0.696 J	1.0	0.500	
C1 - Fluoranthene/Pyrene	U	1.0	0.500	
C2 - Fluoranthene/Pyrene	U	1.0	0.500	
C3 - Fluoranthene/Pyrene	U	1.0	0.500	
Benz[a]anthracene	U	1.0	0.500	
Chrysene*	U	1.0	0.500	
C1 - Benz(a)anthracene/Chrysene	U	1.0	0.500	
C2 - Benz(a)anthracene/Chrysene	U	1.0	0.500	
C3 - Benz(a)anthracene/Chrysene	U	1.0	0.500	
C4 - Benz(a)anthracene/Chrysene	U	1.0	0.500	
Benzo[b]fluoranthene	U	1.0	0.500	
Benzo[j/k]fluoranthene	U	1.0	0.500	
Benzo(e)pyrene	U	1.0	0.500	
Benzo[a]pyrene	U	1.0	0.500	
Perylene	U	1.0	0.500	
Indeno[1,2,3-cd]pyrene	U	1.0	0.500	
Dibenz[a,h]anthracene	U	1.0	0.500	
Benzo[g,h,i]perylene	U	1.0	0.500	
Coronene	U	1.0	0.500	
Retene	U	1.0	0.500	
Benzo(b/c)fluorenes	U	1.0	0.500	
2-Methylpyrene	U	1.0	0.500	
4-Methylpyrene	U	1.0	0.500	
1-Methylpyrene	U	1.0	0.500	
Heptadecane	U	1.0	0.500	
Pristane	U	1.0	0.500	
Octadecane	U	1.0	0.500	
Phytane	U	1.0	0.500	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081111-MB		
File ID:	E111204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	1.0	0.500	
2,6,10-trimethyltridecane	U	1.0	0.500	
Norpristane	U	1.0	0.500	
Tetraethyl lead	U	1.0	0.500	
Total PAH (16)	20.1	1.0	0.500	
Total PAH (42)	30.9	1.0	0.500	

Extraction Surrogate Recoveries (%)		Limits
Toluene-d8	113	50 - 120
Phenanthrene-d10	99	50 - 120
Perylene-d12	84	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank Spike

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	QC081111-MBS	Analysis Method:	EPA 8270M
File ID:	E111205.D	Matrix:	Soil
Date Sampled:	NA	Preservation:	None
Date Received:	NA	Decanted:	None
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
Batch QC:	QC081111-MB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg)			RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount					% Recovery
Benzene	1000	760	B	1.0	0.500	76
Toluene	1000	794	B	1.0	0.500	79
Ethylbenzene	1000	790		1.0	0.500	79
m/p-Xylenes	1000	795		1.0	0.500	80
Styrene	1000	810	B	1.0	0.500	81
o-Xylene	1000	803		1.0	0.500	80
Isopropylbenzene	1000	851		1.0	0.500	85
n-Propylbenzene	1000	834		1.0	0.500	83
1,3,5-Trimethylbenzene	1000	798		1.0	0.500	80
1,2,4-Trimethylbenzene	1000	632		1.0	0.500	63
t-Butylbenzene	1000	796		1.0	0.500	80
sec-Butylbenzene	1000	809		1.0	0.500	81
p-Isopropyltoluene	1000	864		1.0	0.500	86
n-Butylbenzene	1000	853		1.0	0.500	85
C1 - Benzene			BU	1.0	0.500	
C2 - Benzene			U	1.0	0.500	
C3 - Benzene			U	1.0	0.500	
C4 - Benzene			U	1.0	0.500	
C5 - Benzene			U	1.0	0.500	
trans-Decalin			U	1.0	0.500	
cis-Decalin			U	1.0	0.500	
Naphthalene	1000	836	B	1.0	0.500	84
2-Methylnaphthalene	1000	869	B	1.0	0.500	87
1-Methylnaphthalene	1000	822	B	1.0	0.500	82
C1 - Naphthalene			BU	1.0	0.500	
C2 - Naphthalene			BU	1.0	0.500	
C3- Naphthalene			BU	1.0	0.500	
C4- Naphthalene			U	1.0	0.500	
Acenaphthylene	1000	851	B	1.0	0.500	85
Acenaphthene	1000	827	B	1.0	0.500	83
Dibenzofuran	1000	862	B	1.0	0.500	86
Fluorene	1000	822	B	1.0	0.500	82
C1 - Fluorene			U	1.0	0.500	
C2 - Fluorene			U	1.0	0.500	
C3 - Fluorene			U	1.0	0.500	
Phenanthrene	1000	790	B	1.0	0.500	79
Anthracene	1000	850	B	1.0	0.500	85

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank Spike

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	QC081111-MBS	Analysis Method:	EPA 8270M
File ID:	E111205.D	Matrix:	Soil
Date Sampled:	NA	Preservation:	None
Date Received:	NA	Decanted:	None
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		BU	1.0	0.500	
C2 - Phenanthrene/Anthracene		U	1.0	0.500	
C3 - Phenanthrene/Anthracene		U	1.0	0.500	
C4 - Phenanthrene/Anthracene		U	1.0	0.500	
Dibenzothiophene	1000	U	1.0	0.500	
C1 - Dibenzothiophene		U	1.0	0.500	
C2 - Dibenzothiophene		U	1.0	0.500	
C3 - Dibenzothiophene		U	1.0	0.500	
C4 - Dibenzothiophene		U	1.0	0.500	
Benzo(b)naphtho(2,1-d)thiophene		U	1.0	0.500	
Fluoranthene	1000	780 B	1.0	0.500	78
Pyrene	1000	776 B	1.0	0.500	78
C1 - Fluoranthene/Pyrene		U	1.0	0.500	
C2 - Fluoranthene/Pyrene		U	1.0	0.500	
C3 - Fluoranthene/Pyrene		U	1.0	0.500	
Benz[a]anthracene	1000	740	1.0	0.500	74
Chrysene*	1000	738	1.0	0.500	74
C1 - Benz(a)anthracene/Chrysene		U	1.0	0.500	
C2 - Benz(a)anthracene/Chrysene		U	1.0	0.500	
C3 - Benz(a)anthracene/Chrysene		U	1.0	0.500	
C4 - Benz(a)anthracene/Chrysene		U	1.0	0.500	
Benzo[b]fluoranthene	1000	717	1.0	0.500	72
Benzo[j/k]fluoranthene	1000	773	1.0	0.500	77
Benzo(e)pyrene	1000	U	1.0	0.500	
Benzo[a]pyrene	1000	736	1.0	0.500	74
Perylene		U	1.0	0.500	
Indeno[1,2,3-cd]pyrene	1000	746	1.0	0.500	75
Dibenz[a,h]anthracene	1000	795	1.0	0.500	80
Benzo[g,h,i]perylene	1000	708	1.0	0.500	71
Coronene		U	1.0	0.500	
Retene		U	1.0	0.500	
Benzo(b/c)fluorenes		U	1.0	0.500	
2-Methylpyrene		U	1.0	0.500	
4-Methylpyrene		U	1.0	0.500	
1-Methylpyrene		U	1.0	0.500	
Heptadecane		U	1.0	0.500	
Pristane		U	1.0	0.500	
Octadecane		U	1.0	0.500	
Phytane		U	1.0	0.500	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Method Blank Spike

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC081111-MBS		
File ID:	E111205.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	11/11/2008	Sample Size (g):	0.01
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	1.0	0.500	
2,6,10-trimethyltridecane	U	1.0	0.500	
Norpristane	U	1.0	0.500	
Tetraethyl lead	U	1.0	0.500	
<i>Extraction Surrogate Recoveries (%)</i>		<i>Limits</i>		
Toluene-d8	111	50 - 120		
Phenanthrene-d10	98	50 - 120		
Perylene-d12	86	50 - 120		

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081107-03DUP		
File ID:	E111207.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	11/5/2008		
Date Received:	11/7/2008		
Date Prepared:	11/11/2008	Sample Size (g):	0.0110
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				RPD
Benzene	3.58 B	0.909	0.455	20
Toluene	3.89 B	0.909	0.455	10.8
Ethylbenzene	321	0.909	0.455	28.9
m/p-Xylenes	30.8	0.909	0.455	30.7
Styrene	50.4 B	0.909	0.455	43.5
o-Xylene	269	0.909	0.455	32.4
Isopropylbenzene	131	0.909	0.455	33.7
n-Propylbenzene	204	0.909	0.455	35.8
1,3,5-Trimethylbenzene	90.7	0.909	0.455	38.1
1,2,4-Trimethylbenzene	1,170	0.909	0.455	36.6
t-Butylbenzene		0.909	0.455	NA
sec-Butylbenzene	178	0.909	0.455	38.1
p-Isopropyltoluene	244	0.909	0.455	38.6
n-Butylbenzene	307	0.909	0.455	40.3
C1 - Benzene	2.5 B	0.909	0.455	11
C2 - Benzene	254	0.909	0.455	30.9
C3 - Benzene	1,400	0.909	0.455	36.8
C4 - Benzene	2,540	0.909	0.455	41.9
C5 - Benzene	2,080	0.909	0.455	43.3
trans-Decalin	488	0.909	0.455	40.4
cis-Decalin	42.7	0.909	0.455	41.6
Naphthalene	2,520 B	0.909	0.455	40.6
2-Methylnaphthalene	9,310 DB	0.909	0.455	53.7
1-Methylnaphthalene	5,560 DB	0.909	0.455	54.2
C1 - Naphthalene	9,290 DB	0.909	0.455	54
C2 - Naphthalene	8,060 B	0.909	0.455	43
C3- Naphthalene	5,990 B	0.909	0.455	44
C4- Naphthalene	2,800	0.909	0.455	45.1
Acenaphthylene	202 B	0.909	0.455	43.4
Acenaphthene	1,130 B	0.909	0.455	44.3
Dibenzofuran	220 B	0.909	0.455	45.1
Fluorene	880 B	0.909	0.455	43.4
C1 - Fluorene	1,200	0.909	0.455	48.2
C2 - Fluorene	1,420	0.909	0.455	46.4
C3 - Fluorene	822	0.909	0.455	43.9
Phenanthrene	2,160 B	0.909	0.455	44.1
Anthracene	694 B	0.909	0.455	44.6

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC081107-03DUP		
File ID:	E111207.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	11/5/2008		
Date Received:	11/7/2008		
Date Prepared:	11/11/2008	Sample Size (g):	0.0110
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
		Injection Volume (µl):	1.00
Batch QC:	QC081111-MB		

Analyte	Concentration (mg/kg)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	3,020 B	0.909	0.455	45
C2 - Phenanthrene/Anthracene	2,010	0.909	0.455	45.1
C3 - Phenanthrene/Anthracene	714	0.909	0.455	45.8
C4 - Phenanthrene/Anthracene	182	0.909	0.455	46.8
Dibenzothiophene	368	0.909	0.455	45.7
C1 - Dibenzothiophene	752	0.909	0.455	45.4
C2 - Dibenzothiophene	800	0.909	0.455	46.2
C3 - Dibenzothiophene	447	0.909	0.455	45.3
C4 - Dibenzothiophene	155	0.909	0.455	45
Benzo(b)naphtho(2,1-d)thiophene	54.9	0.909	0.455	45.4
Fluoranthene	498 B	0.909	0.455	44.7
Pyrene	833 B	0.909	0.455	44.5
C1 - Fluoranthene/Pyrene	921	0.909	0.455	45.4
C2 - Fluoranthene/Pyrene	311	0.909	0.455	46.3
C3 - Fluoranthene/Pyrene	88.6	0.909	0.455	42.1
Benz[a]anthracene	272	0.909	0.455	45
Chrysene*	271	0.909	0.455	45.8
C1 - Benz(a)anthracene/Chrysene	230	0.909	0.455	44.7
C2 - Benz(a)anthracene/Chrysene	81.1	0.909	0.455	44.5
C3 - Benz(a)anthracene/Chrysene	19.9	0.909	0.455	61.8
C4 - Benz(a)anthracene/Chrysene	8.26	0.909	0.455	46.4
Benzo[b]fluoranthene	78.8	0.909	0.455	46.1
Benzo[j/k]fluoranthene	104	0.909	0.455	46
Benzo(e)pyrene	90.1	0.909	0.455	46.2
Benzo[a]pyrene	184	0.909	0.455	45.3
Perylene	25.5	0.909	0.455	45.8
Indeno[1,2,3-cd]pyrene	49.5	0.909	0.455	45.4
Dibenz[a,h]anthracene	20.9	0.909	0.455	48.8
Benzo[g,h,i]perylene	58.1	0.909	0.455	46.4
Coronene	13.2	0.909	0.455	41.6
Retene	U	0.909	0.455	NA
Benzo(b/c)fluorenes	119	0.909	0.455	45.5
2-Methylpyrene	143	0.909	0.455	45
4-Methylpyrene	120	0.909	0.455	44.6
1-Methylpyrene	146	0.909	0.455	44.8
Heptadecane	U	0.909	0.455	NA
Pristane	8,240 D	0.909	0.455	56.1
Octadecane	U	0.909	0.455	NA
Phytane	4,060 D	0.909	0.455	54.1

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of HISB-112 / TW / Product

Client:	H2M	Preparation Method:	EPA 3580
Project:	KEY - URS	Cleanup Method(s):	NA
Lab ID	HC081107-03DUP	Analysis Method:	EPA 8270M
File ID:	E111207.D	Matrix:	Soil
Date Sampled:	11/5/2008	Preservation:	None
Date Received:	11/7/2008	Decanted:	None
Date Prepared:	11/11/2008	Sample Size (g):	0.0110
Date Cleanup:	NA	Percent Solid:	100.0%
Date Analyzed:	11/12/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1
Operator:	JAR	Analysis DF:	1
Batch QC:	QC081111-MB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg)	RL	EDL	Comments
2,6,10-trimethyldodecane	2,000	0.909	0.455	42.4
2,6,10-trimethyltridecane	2,610	0.909	0.455	42.8
Norpristane	2,190	0.909	0.455	45.4
Tetraethyl lead	U	0.909	0.455	NA
Total PAH (16)	9,960	0.909	0.455	43.5
Total PAH (42)	50,000	0.909	0.455	46

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	95	50 - 120
Phenanthrene-d10	98	50 - 120
Benzo[a]pyrene-d12		50 - 120
Perylene-d12	77	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

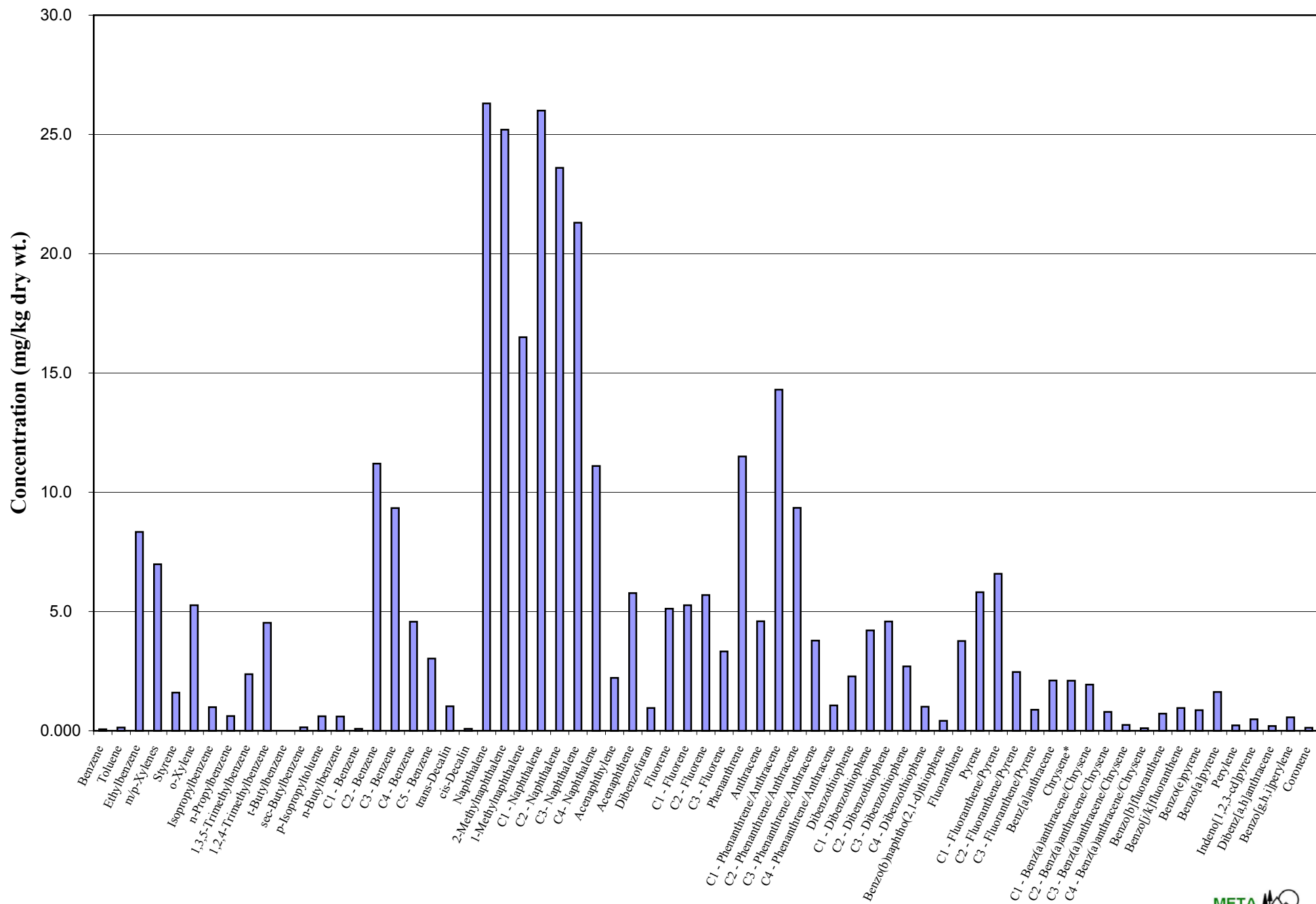
Appendix D

MAH/PAH Concentrations

for SDG HC081104, HC081107

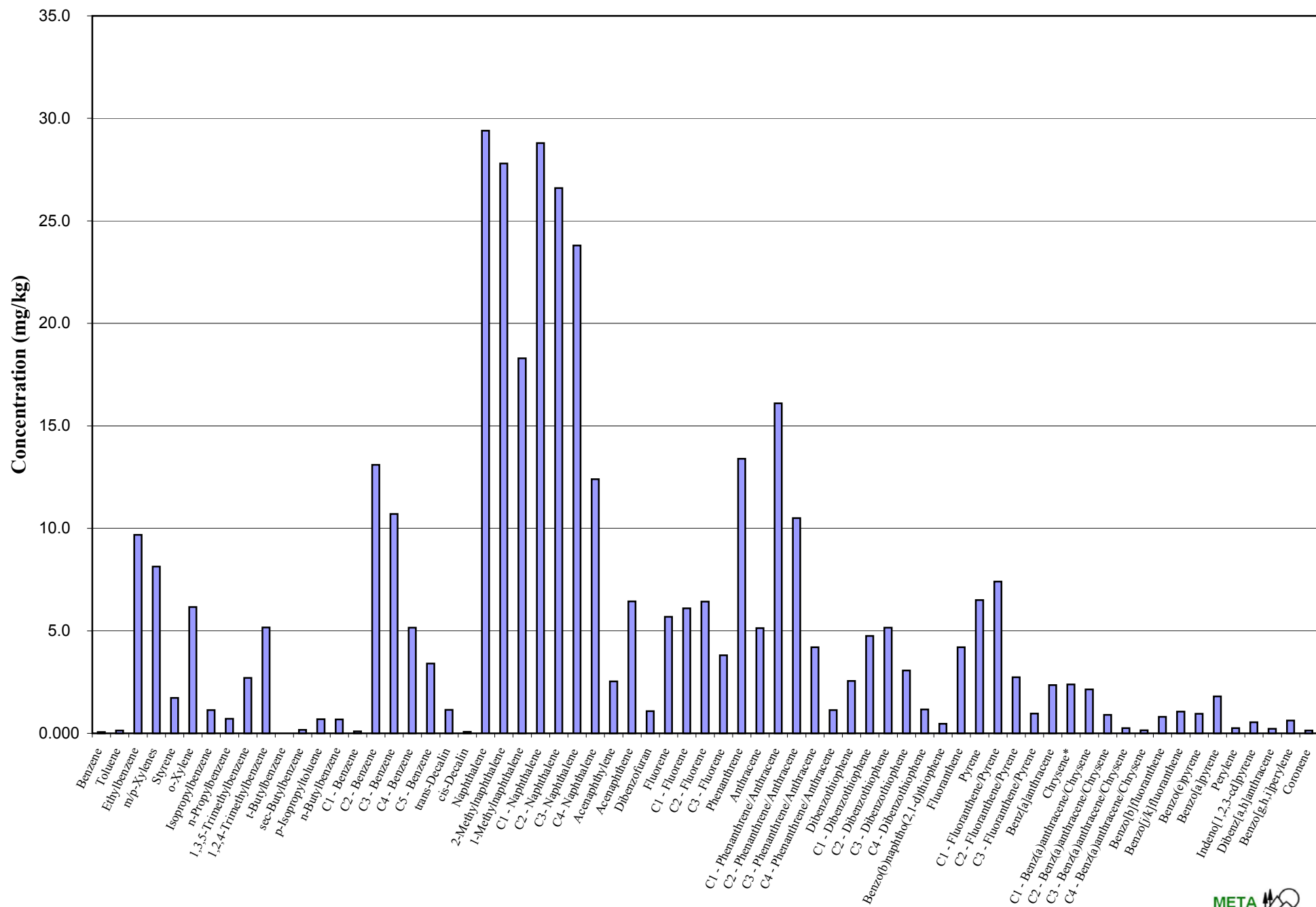
HISB - 110/20-25

HC081104-02



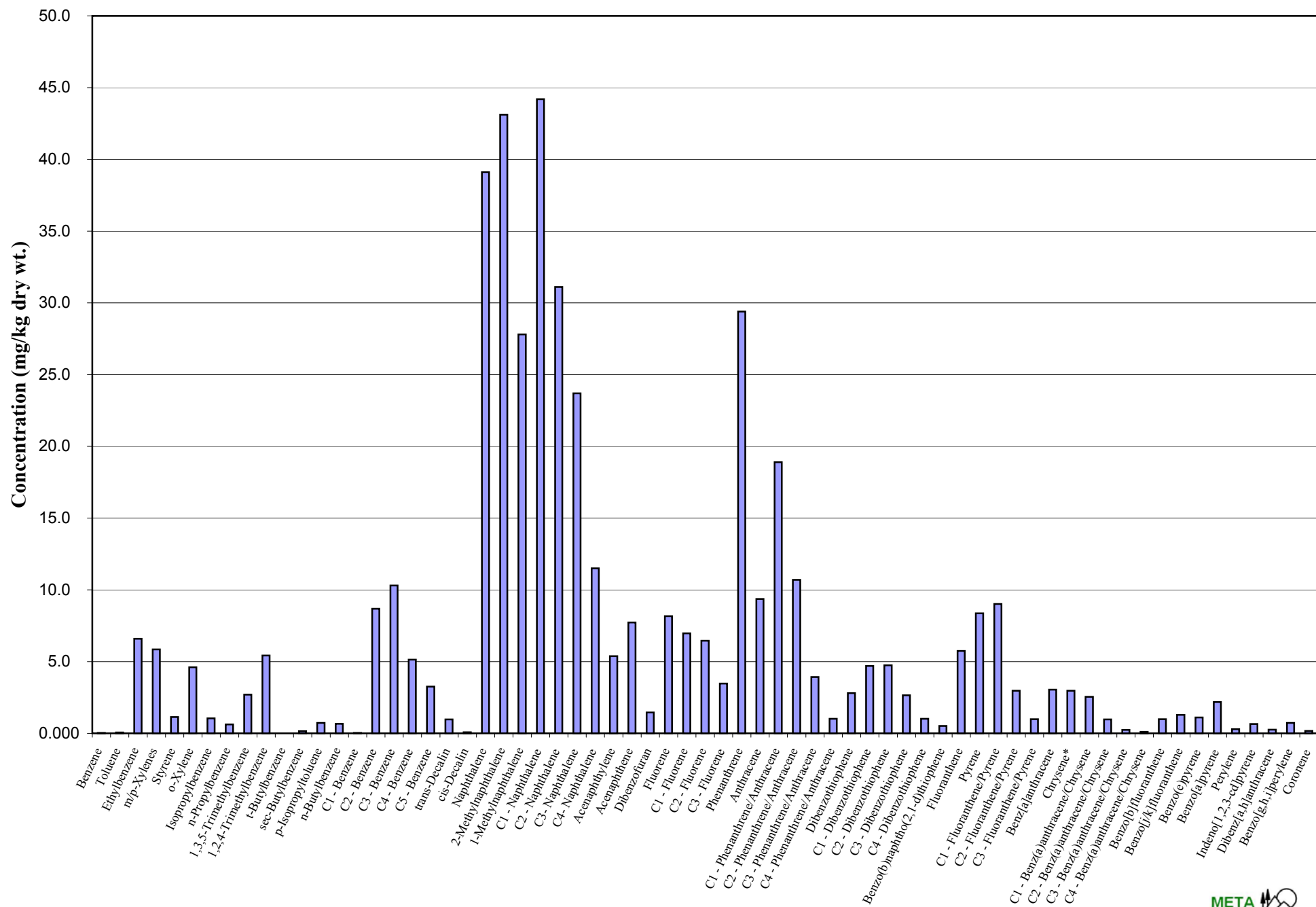
Duplicate of HISB - 110/20-25

HC081104-02DUP



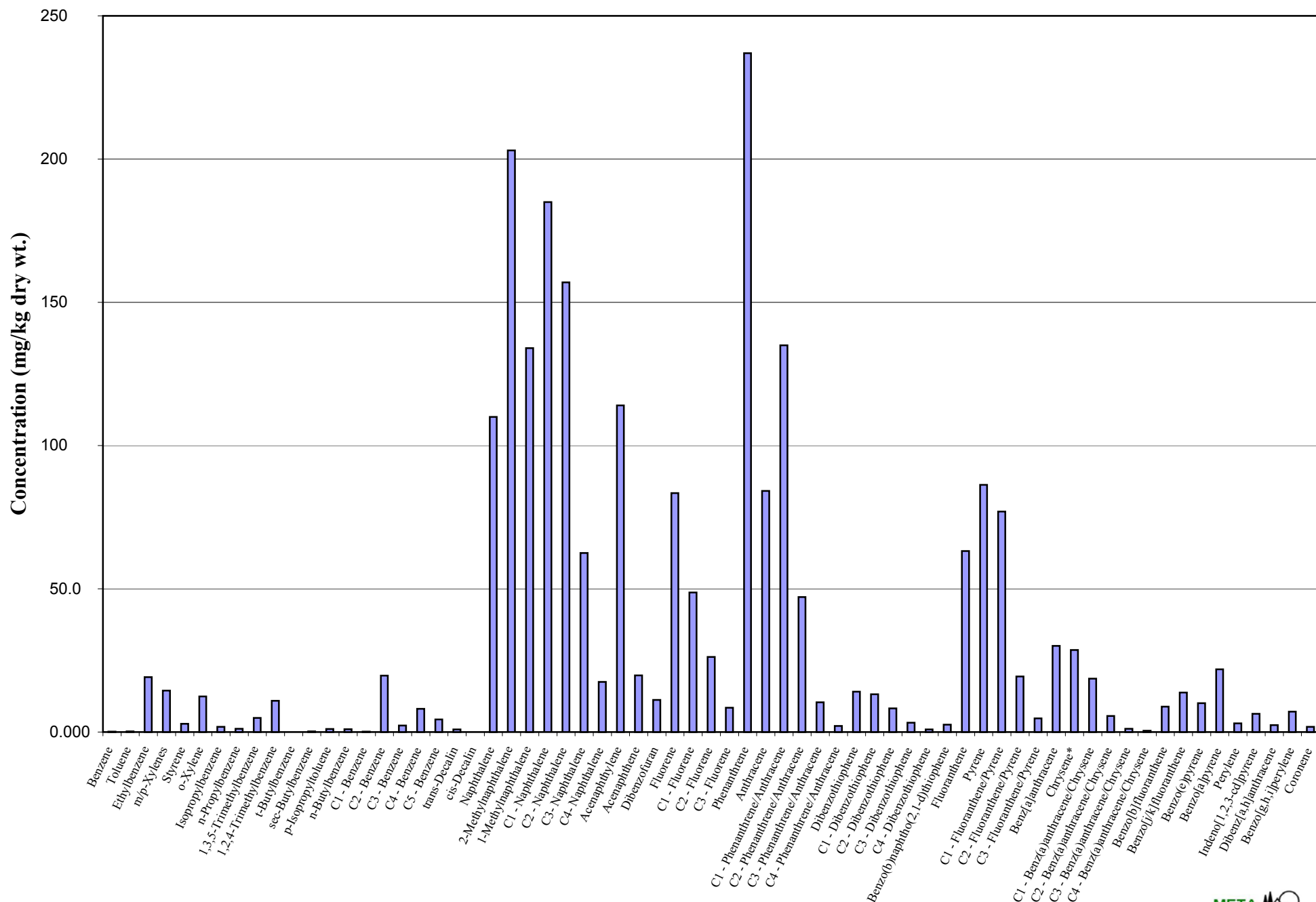
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HC081104-03



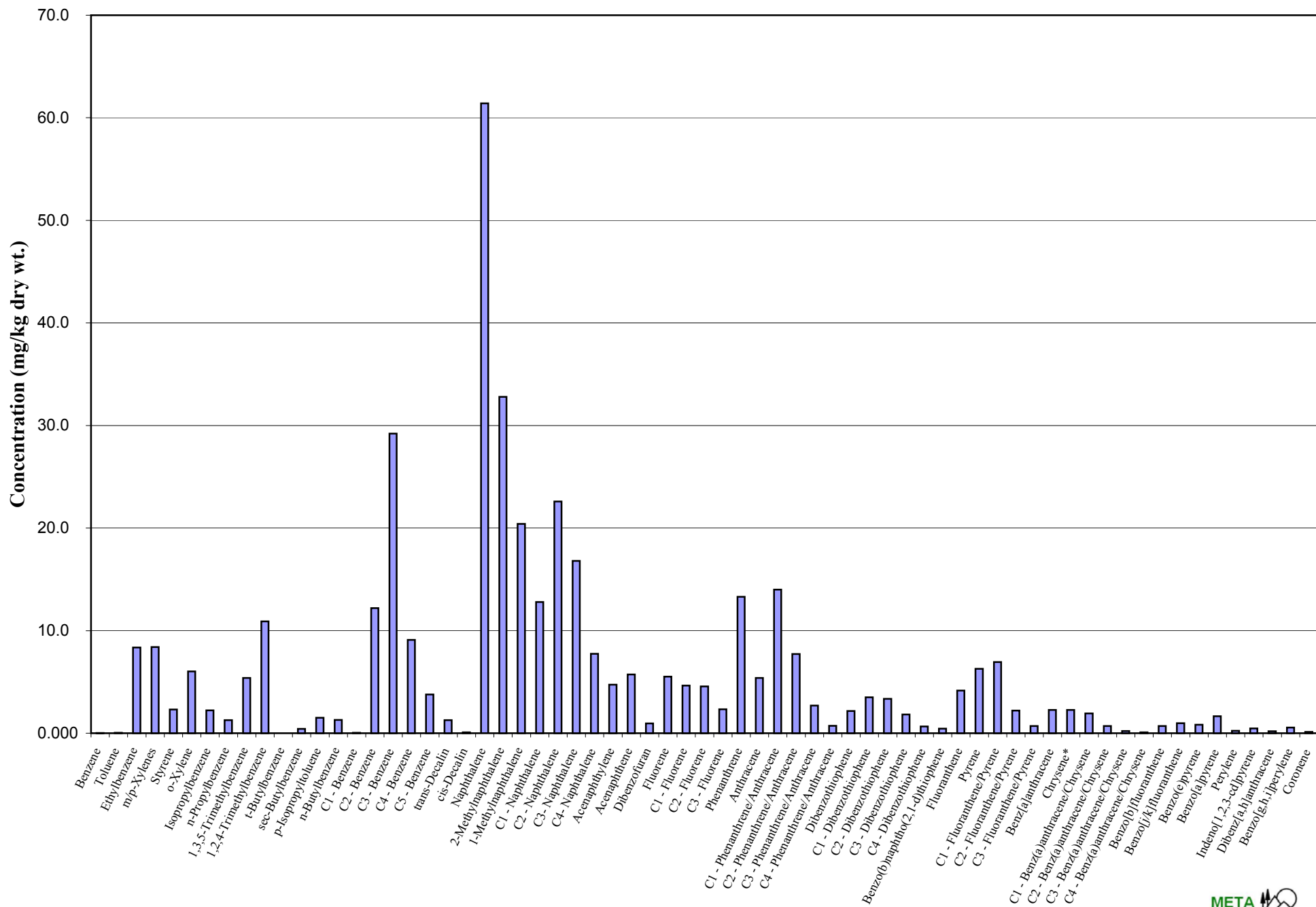
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HC081104-04-D



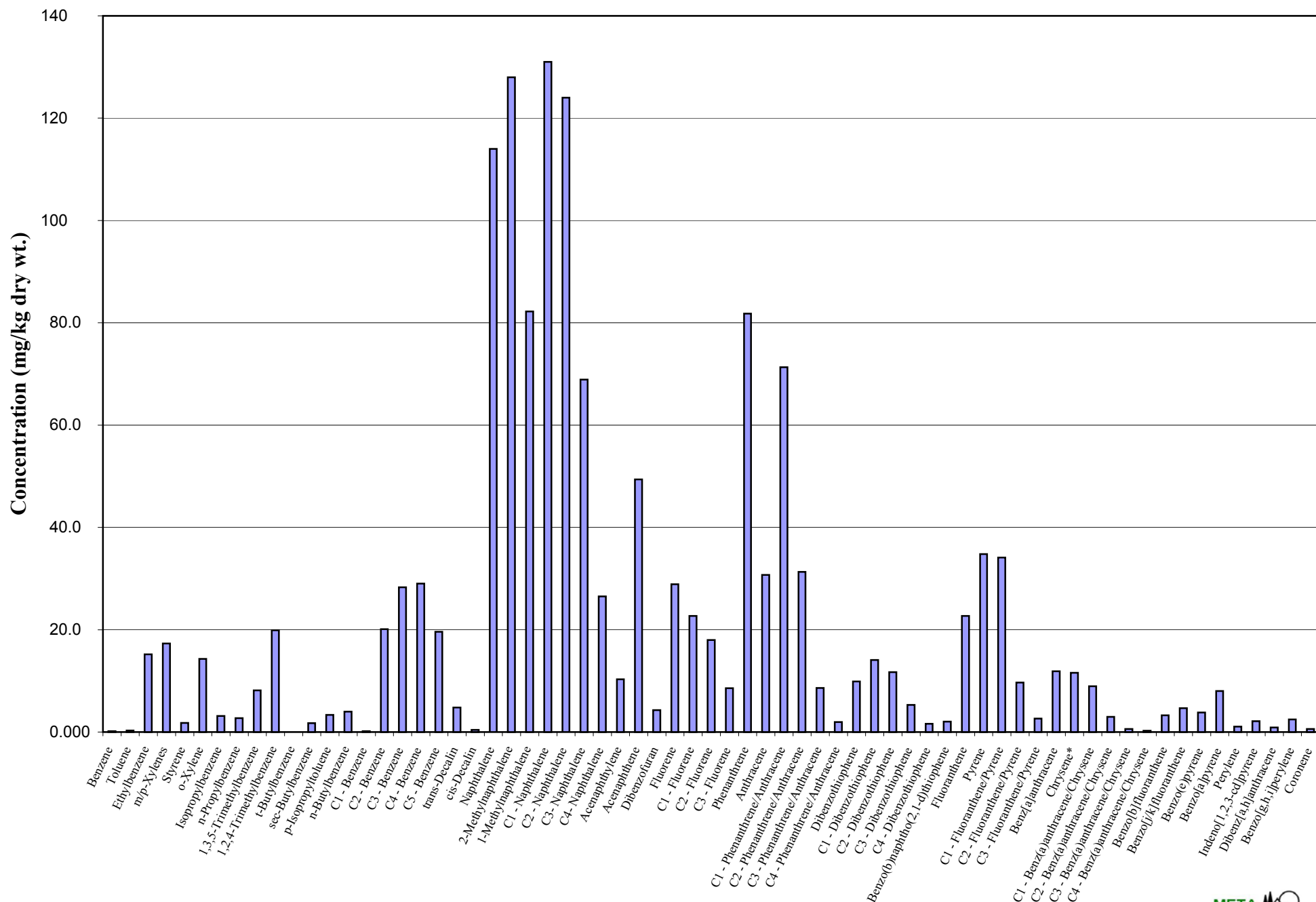
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HC081104-05



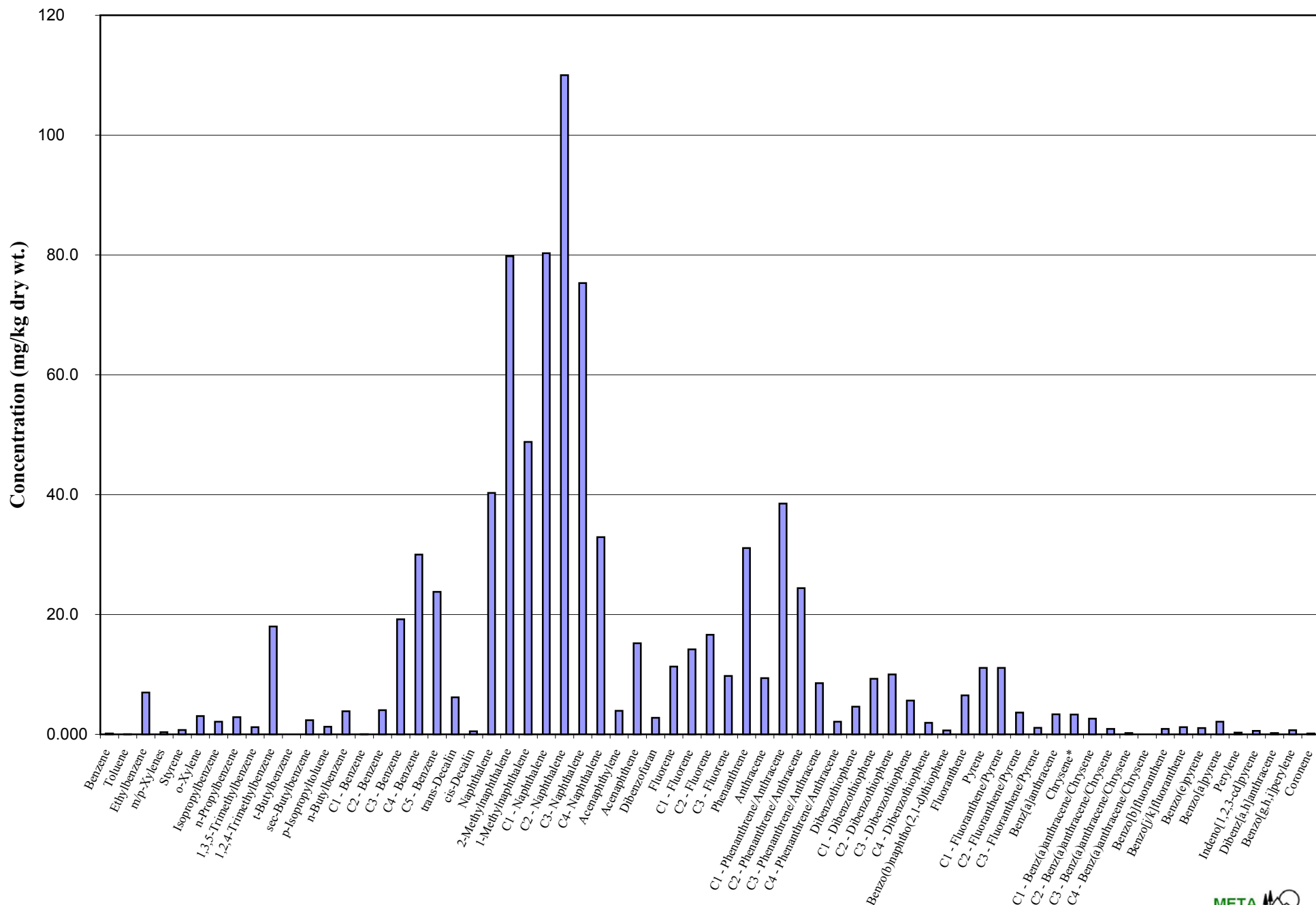
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HC081104-06-D



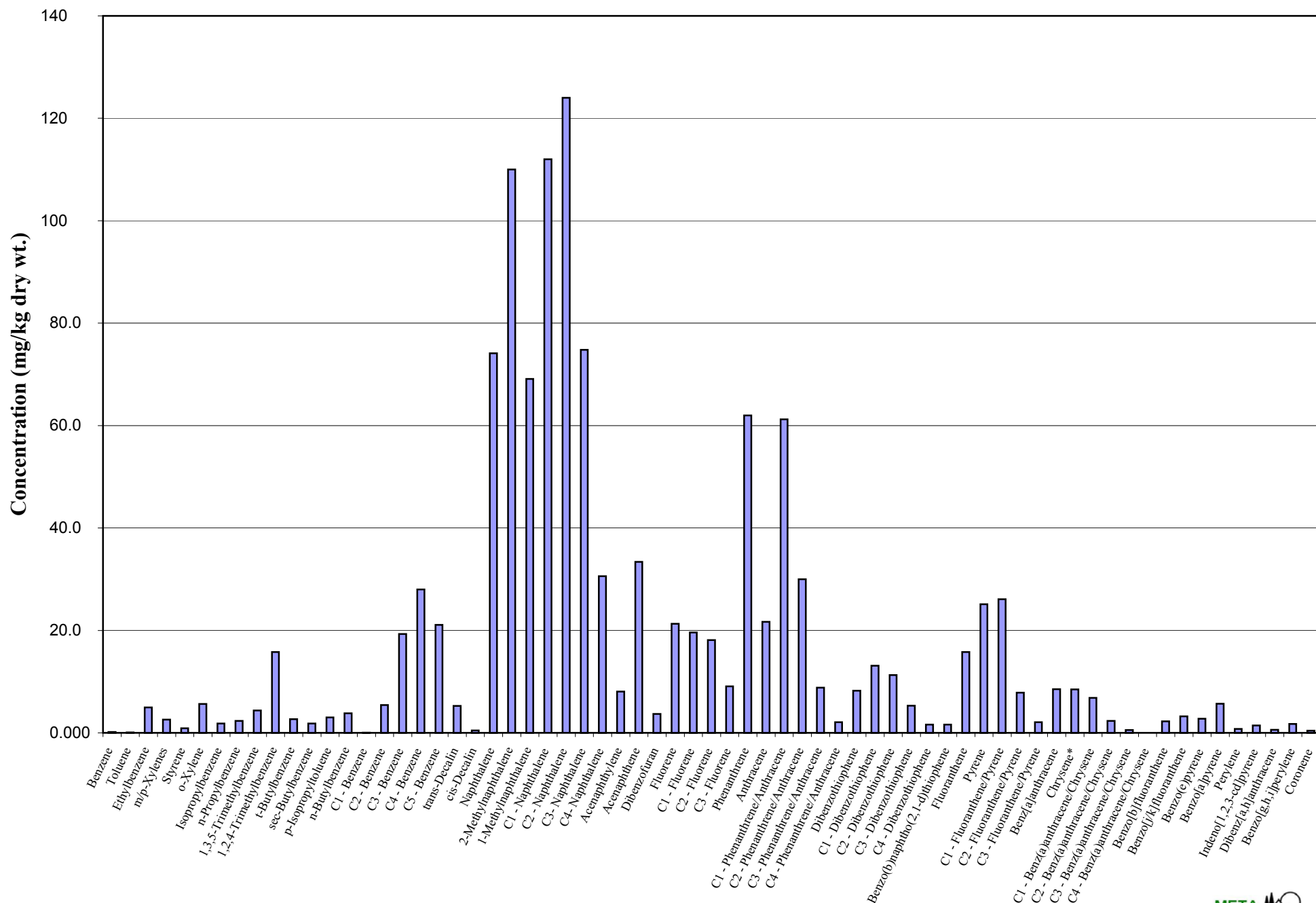
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HC081104-07-D



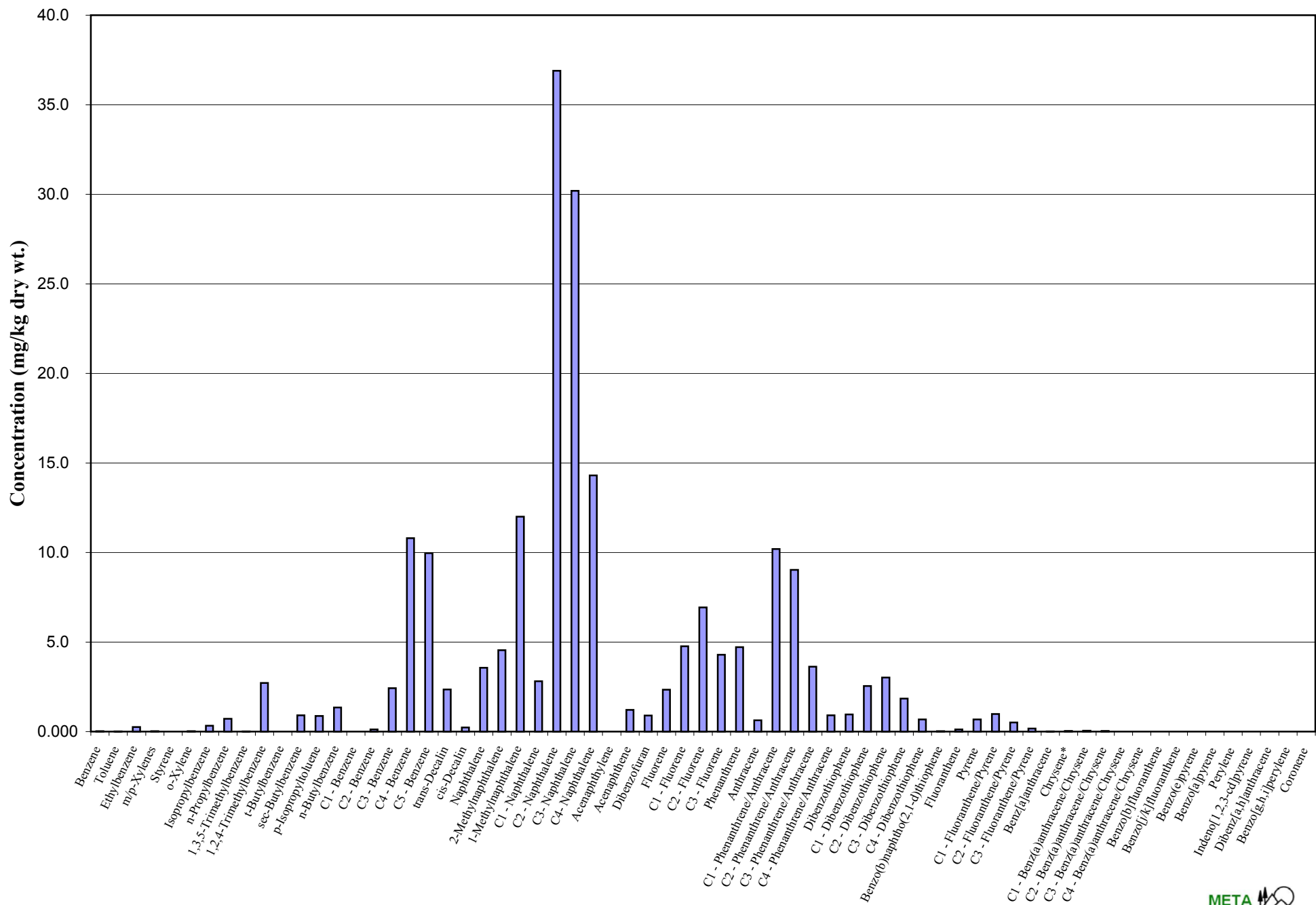
HISB - 112/32-35

HC081104-08-D



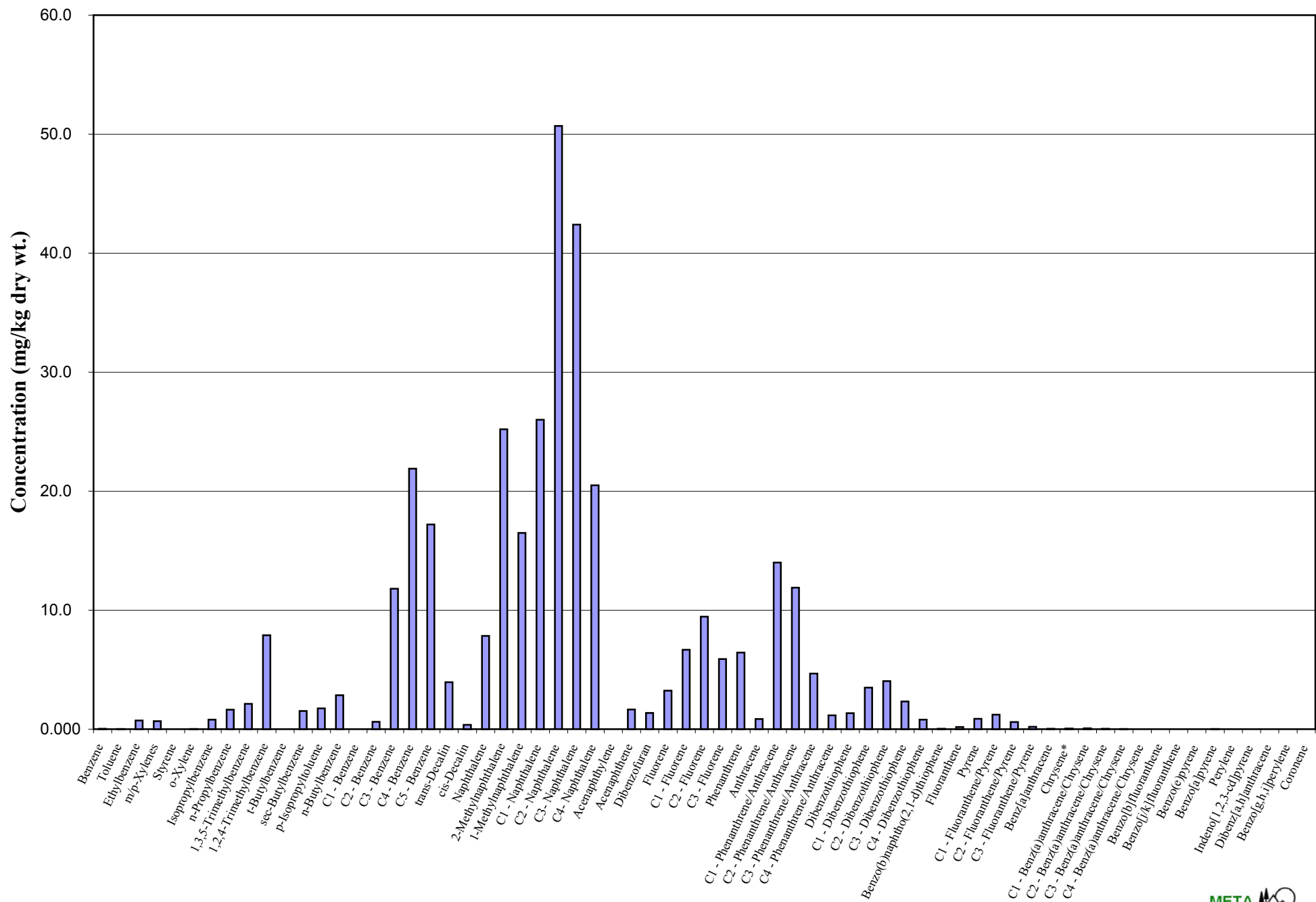
HISB - 113/25-30

HC081104-09



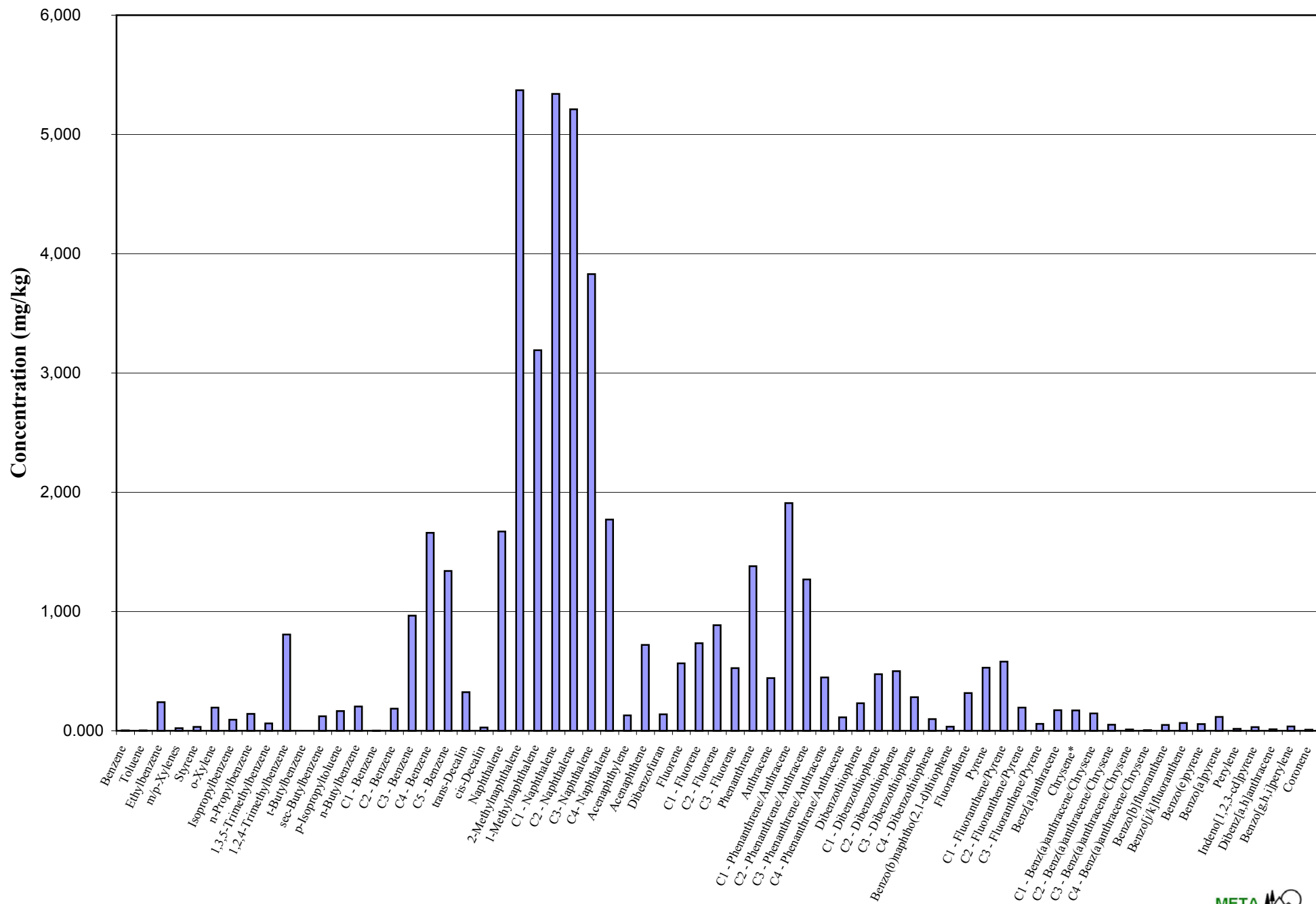
HISB - 113/30-35

HC081104-10



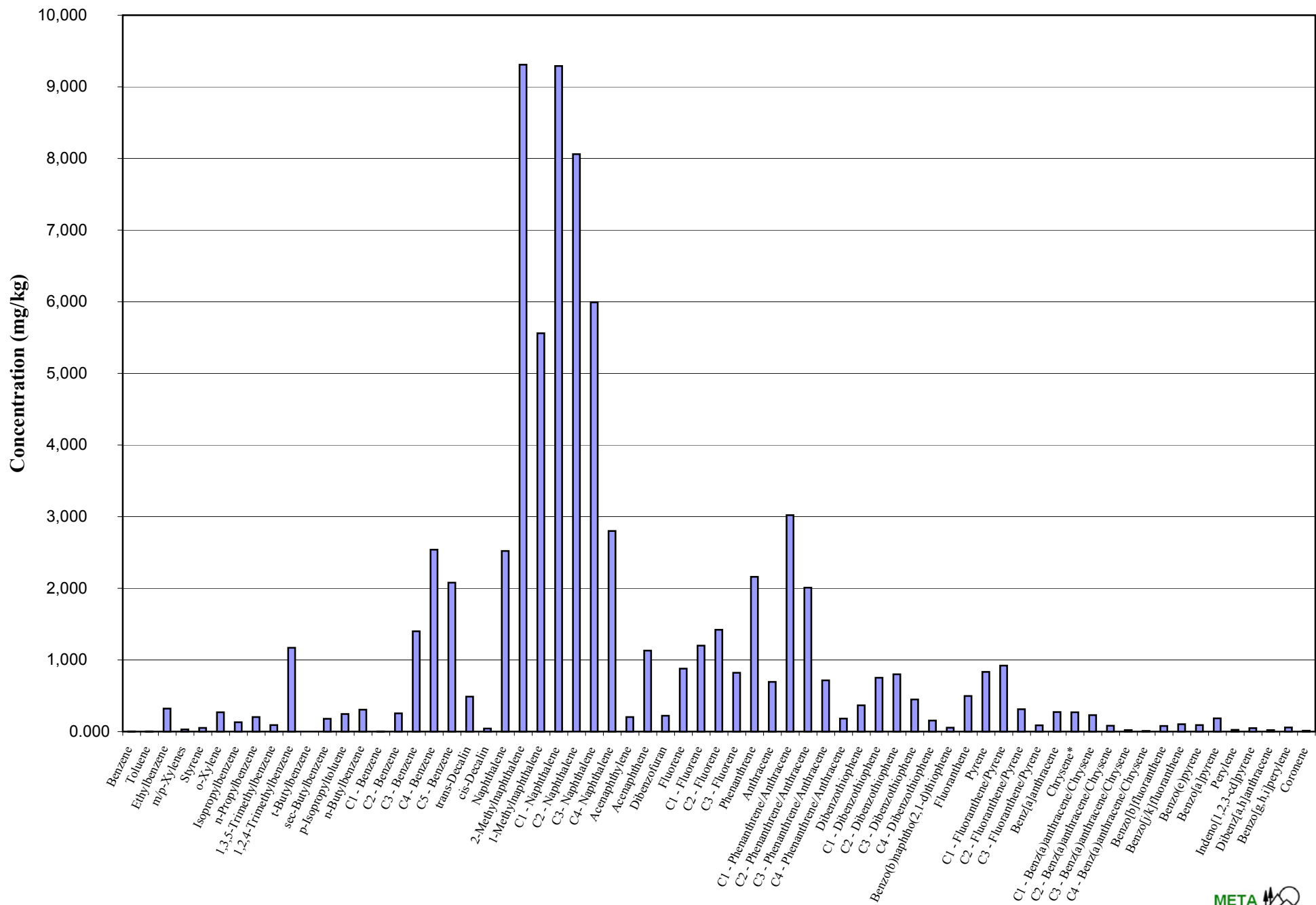
HISB-112 / TW / Product

HC081107-03



Duplicate of HISB-112 / TW / Product

HC081107-03DUP



Appendix E

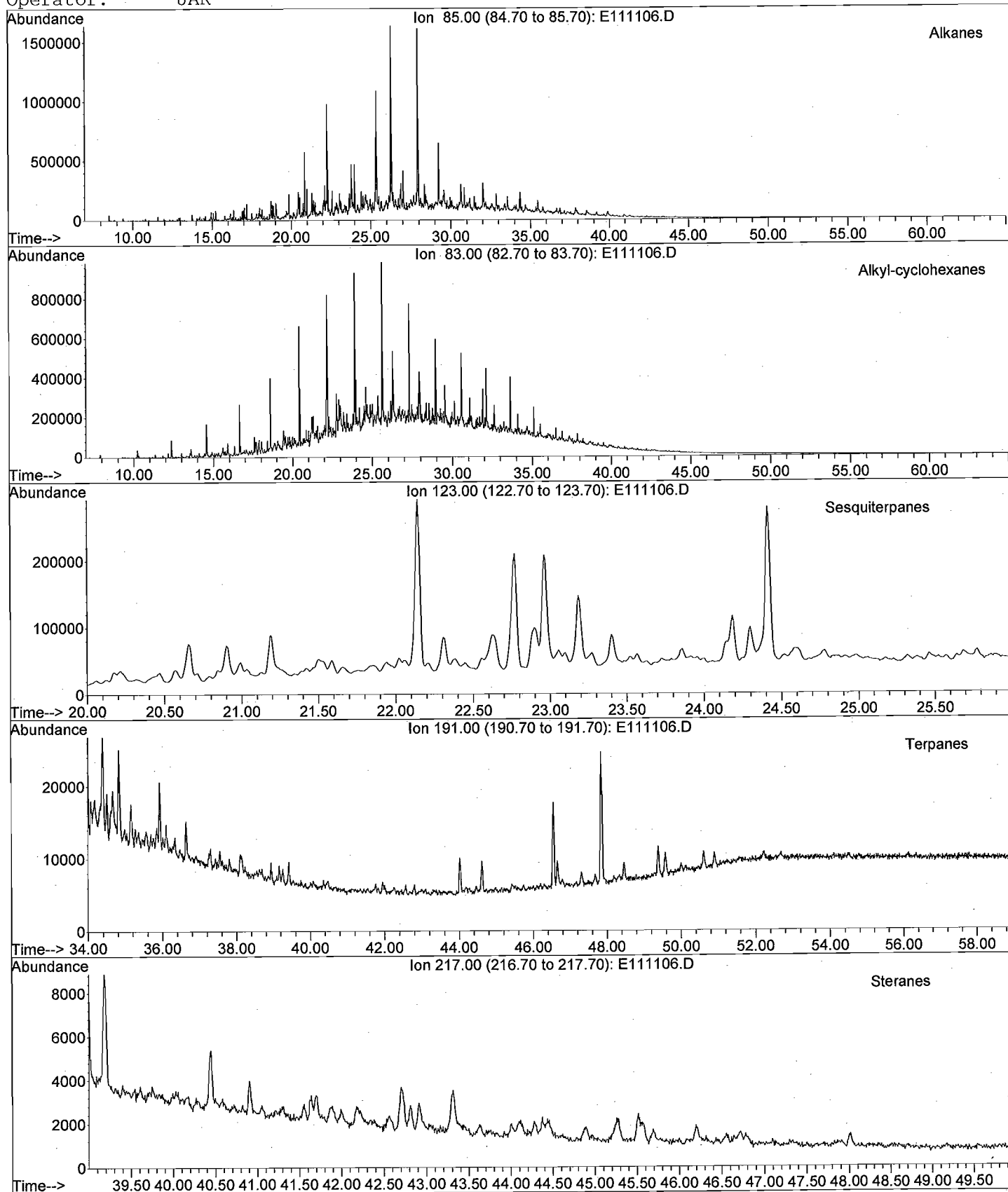
Extended MAH/PAH Profiles –

Histograms

for SDG HC081104, HC081107

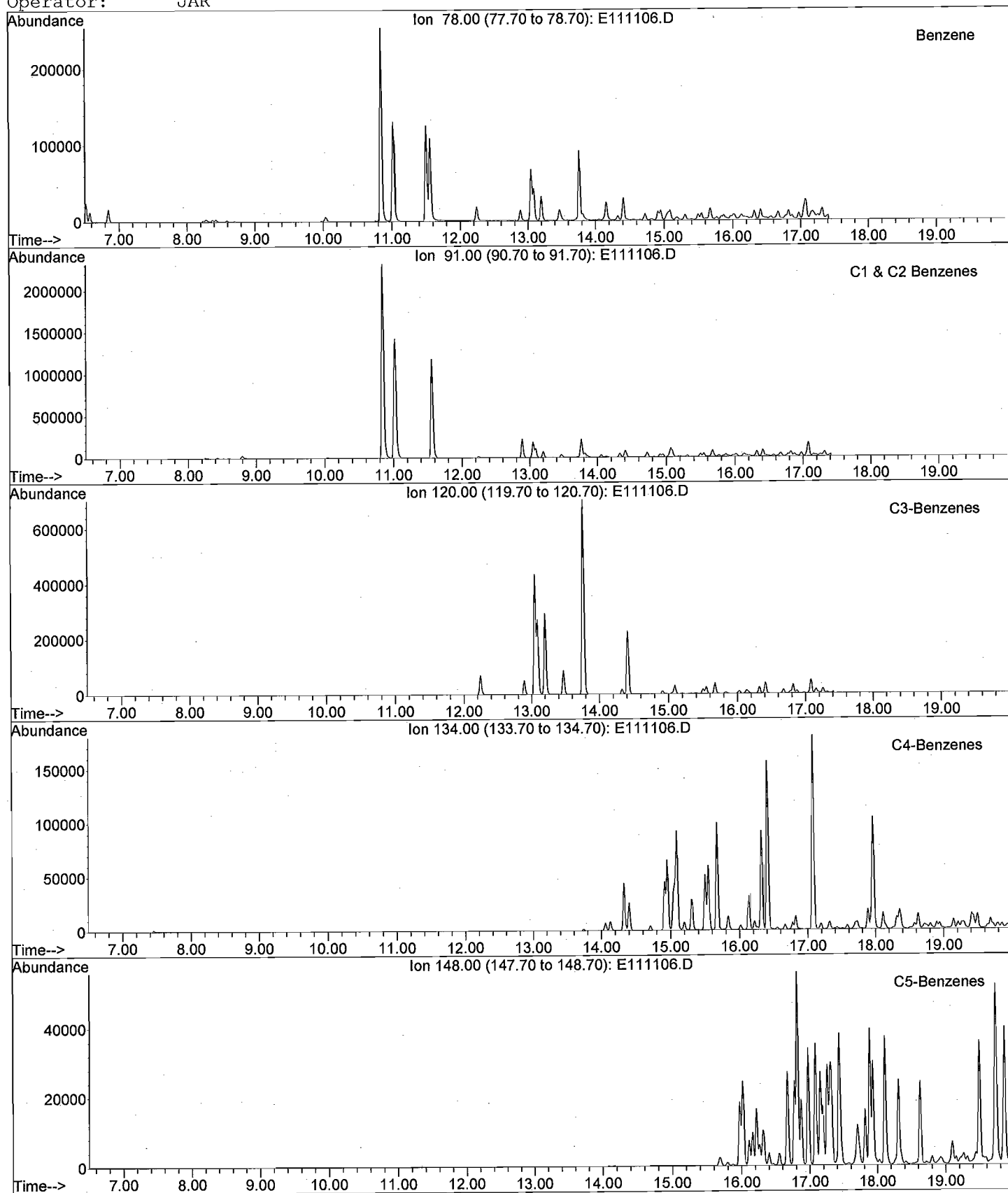
GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



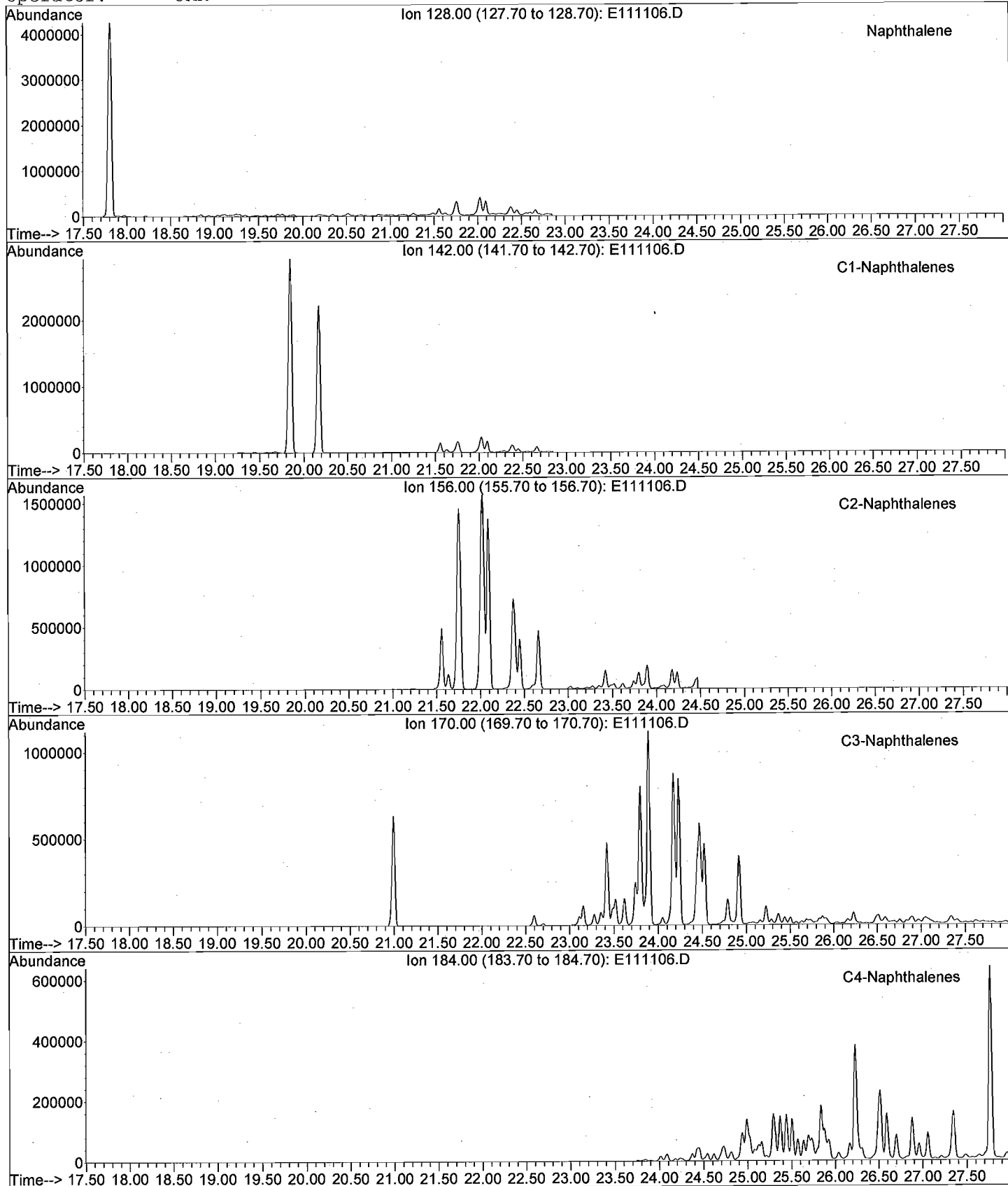
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



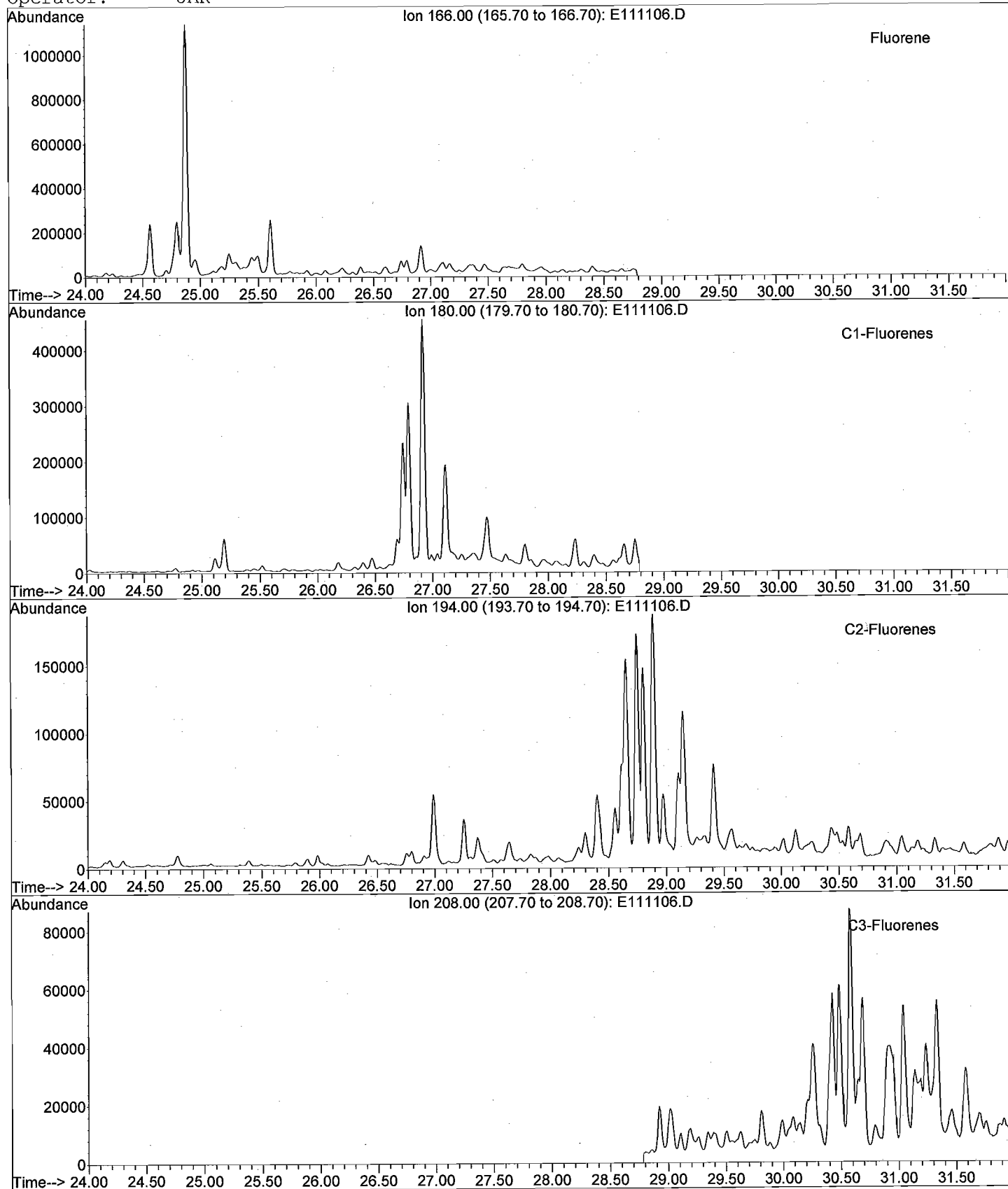
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



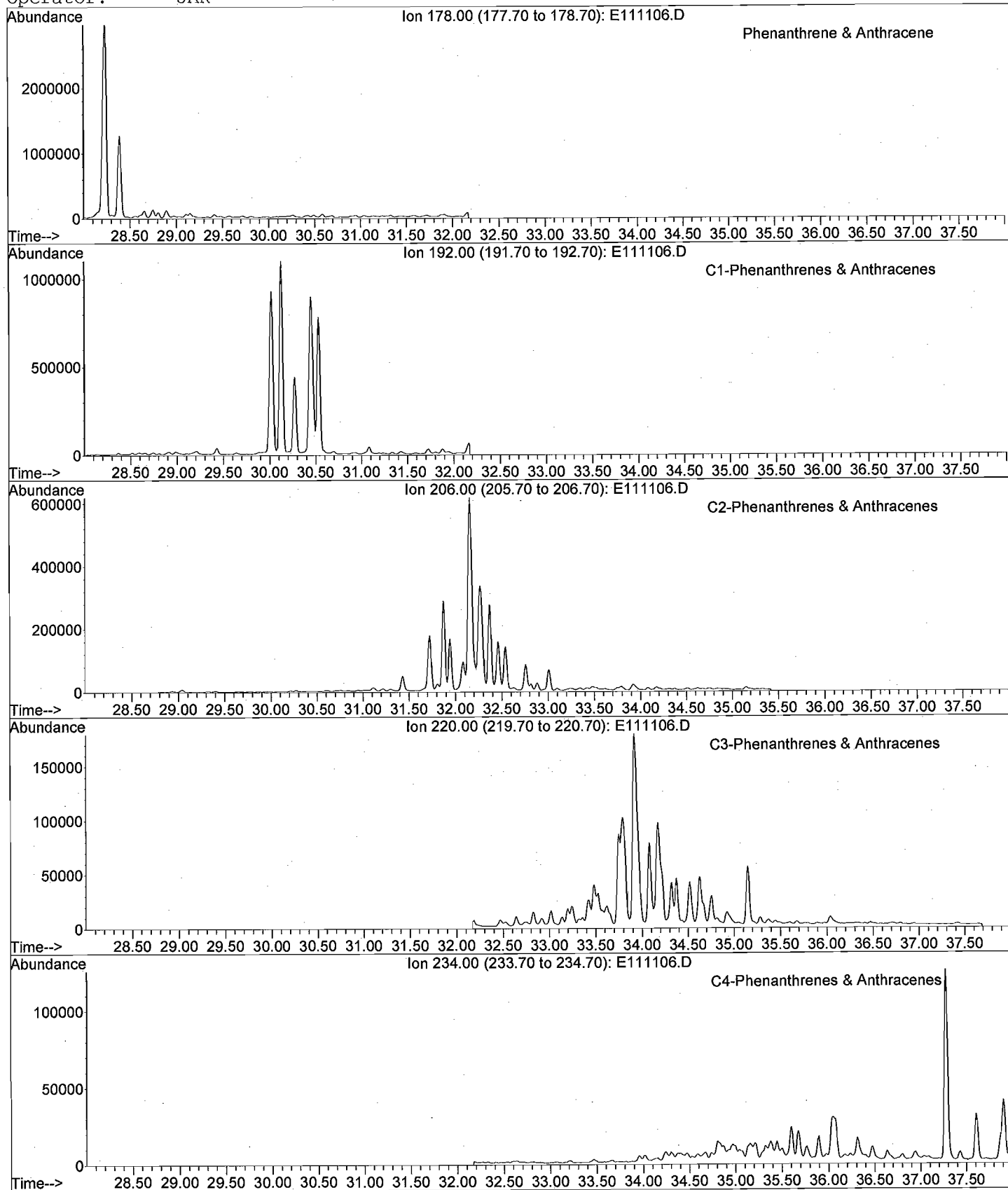
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



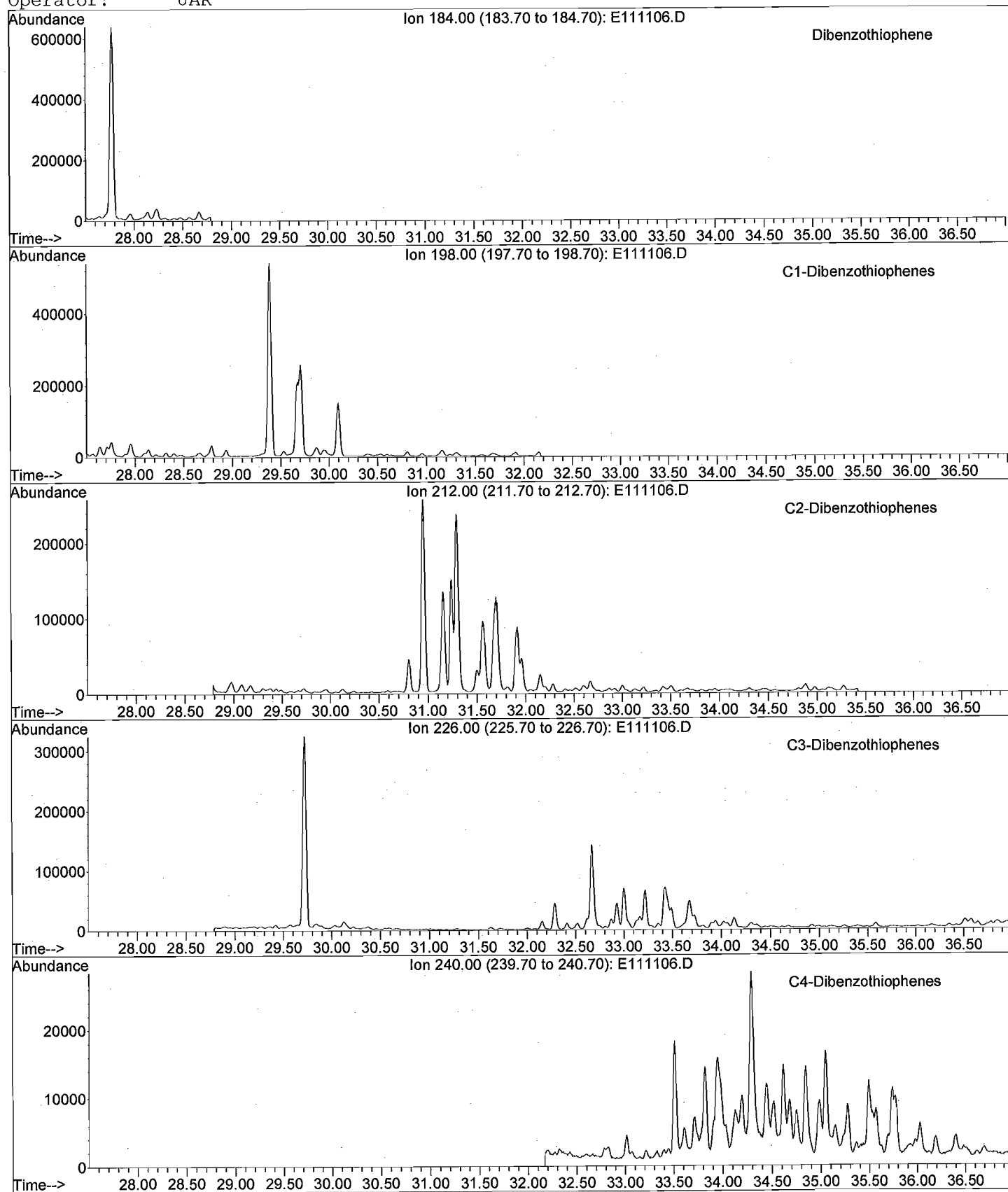
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



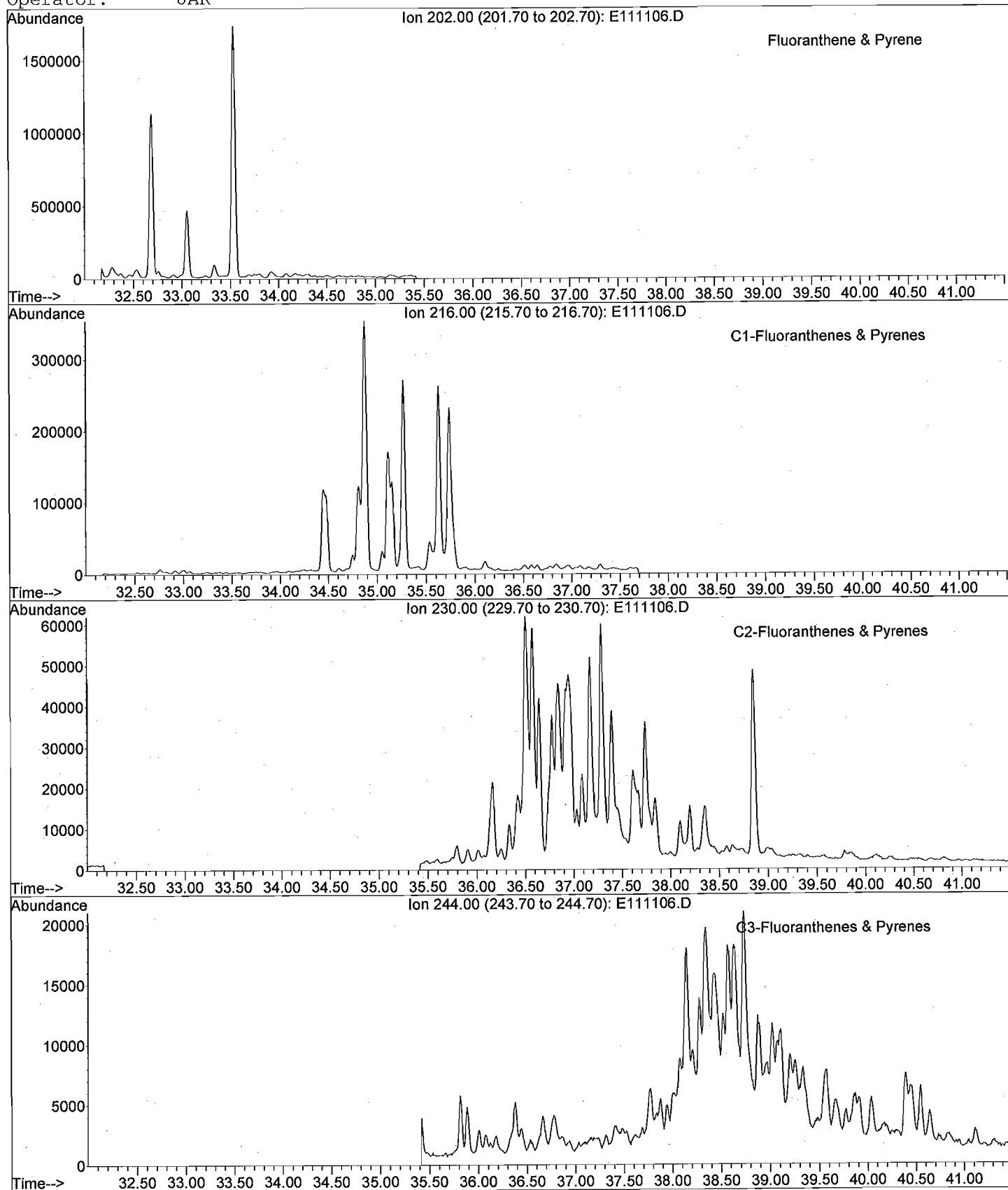
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



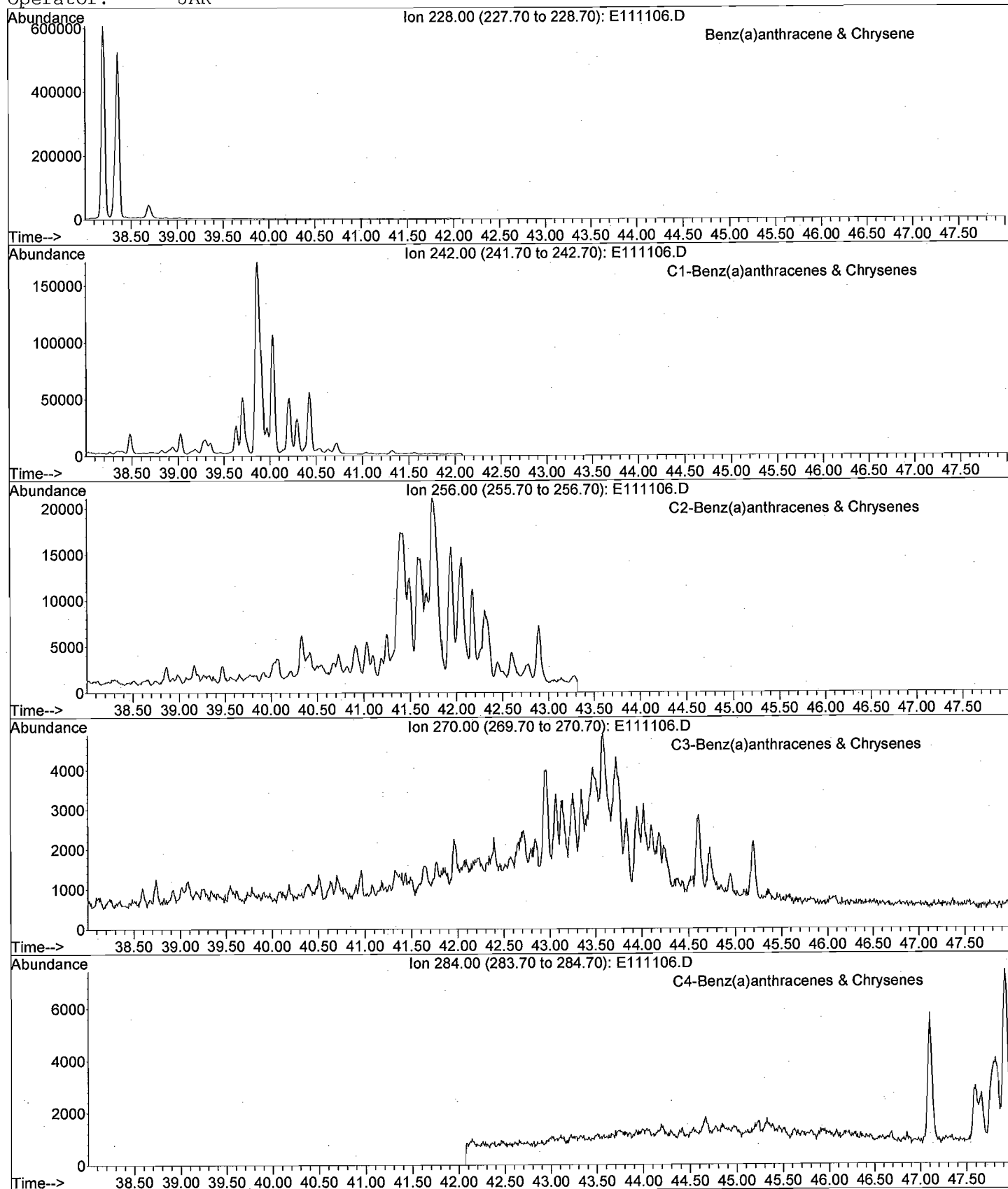
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



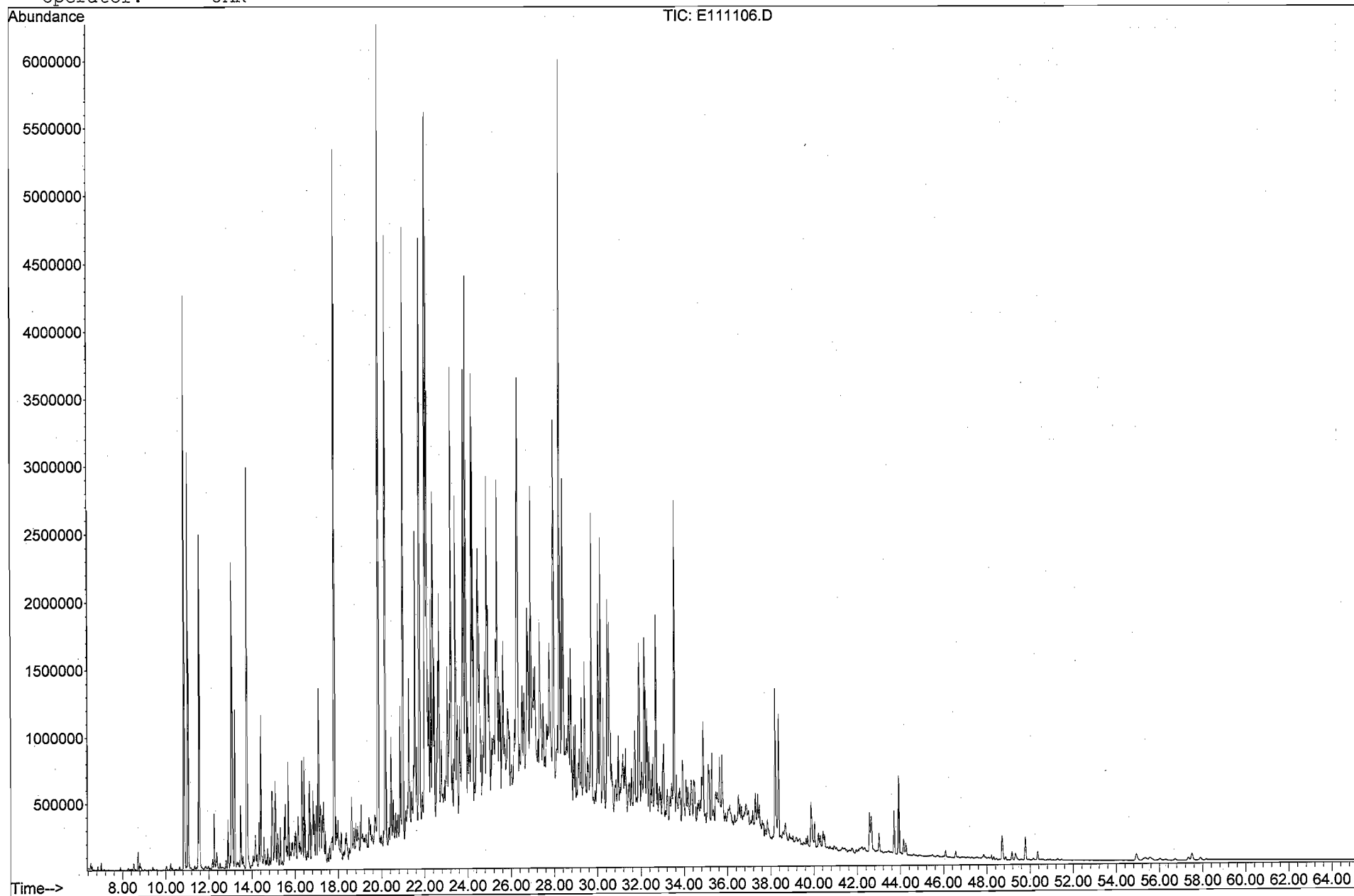
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



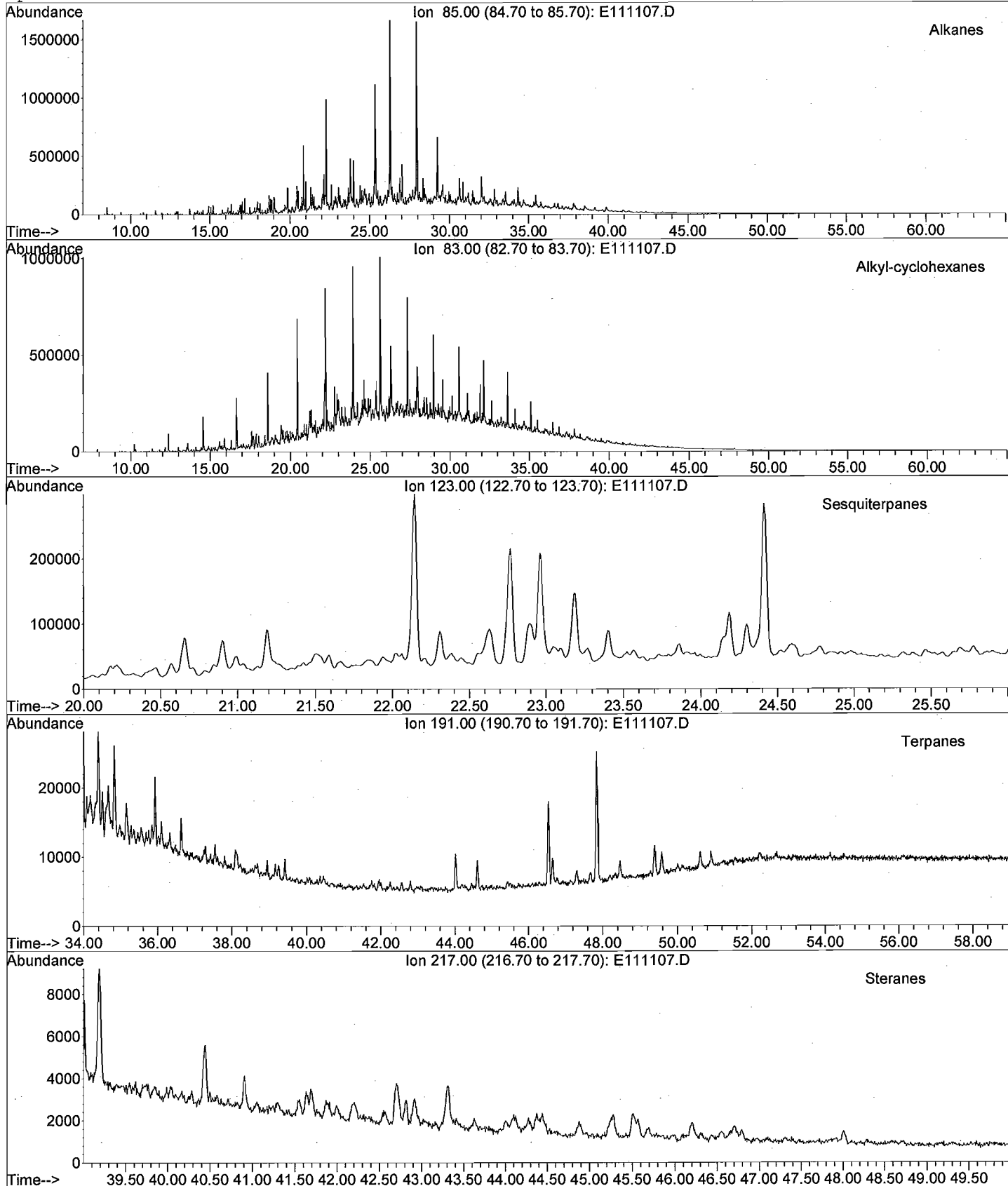
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111106.D
Date Acquired: 11 Nov 2008 9:57 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02
Misc Info: HISB - 110/20-25
Operator: JAR



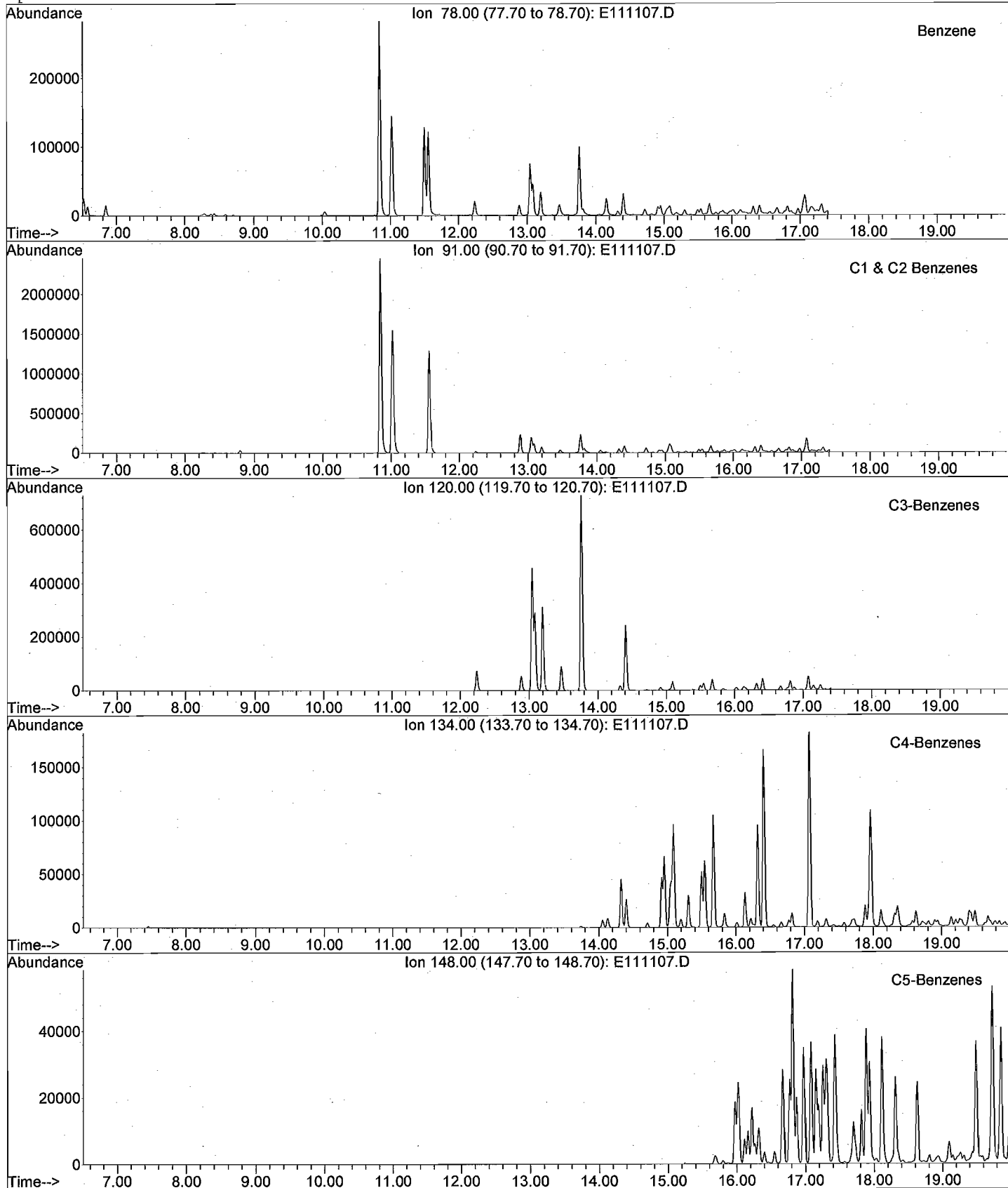
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



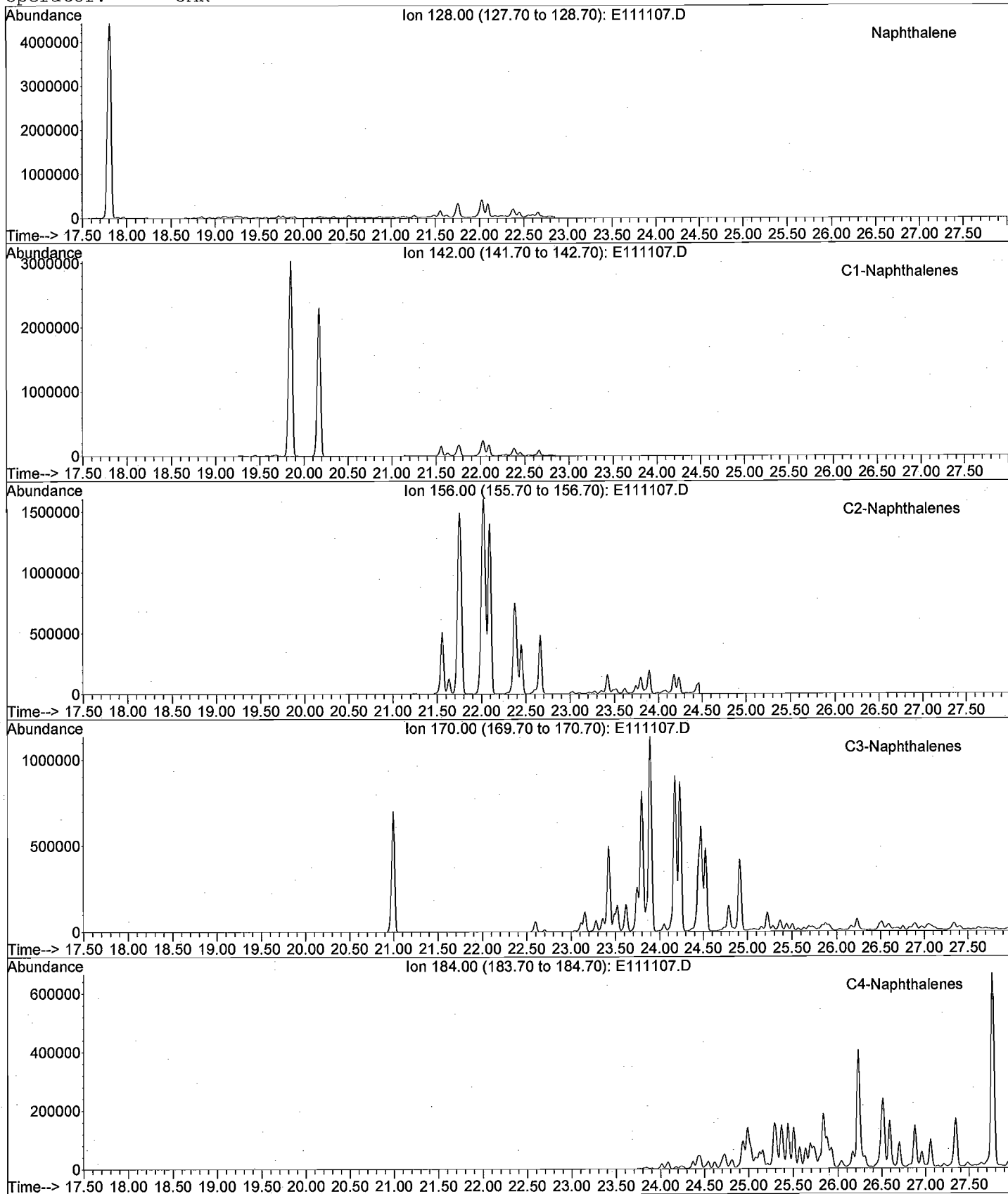
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



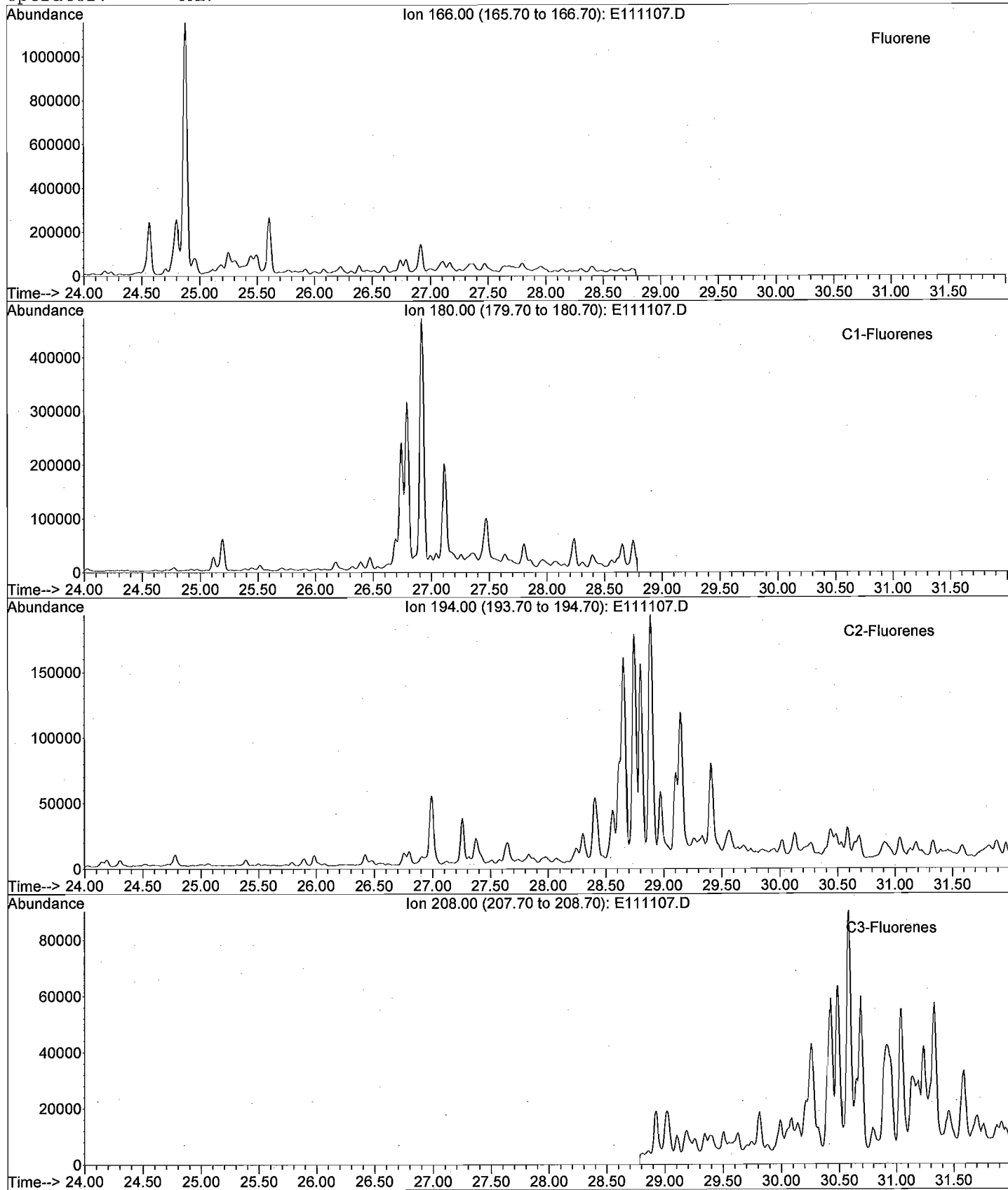
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



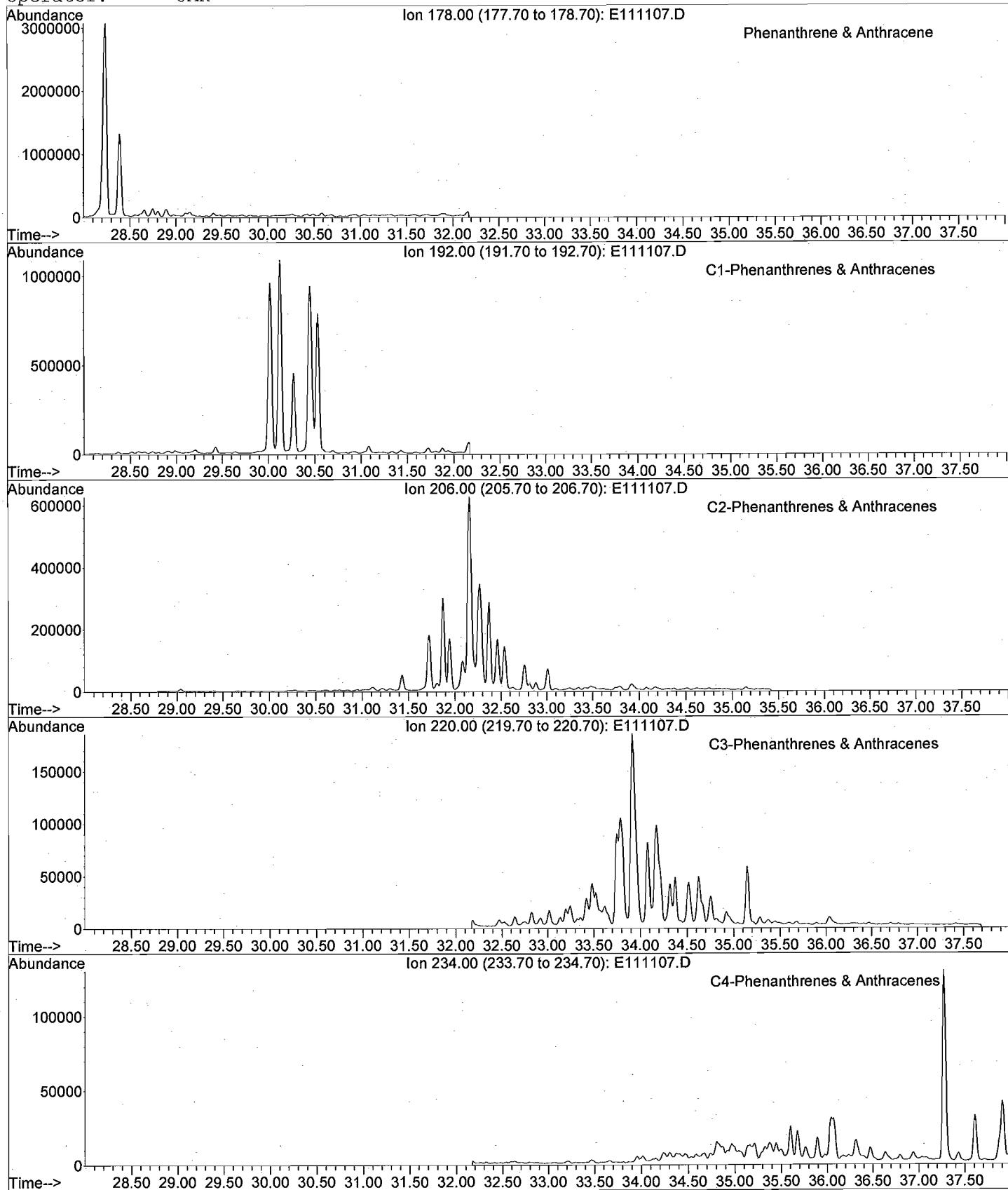
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



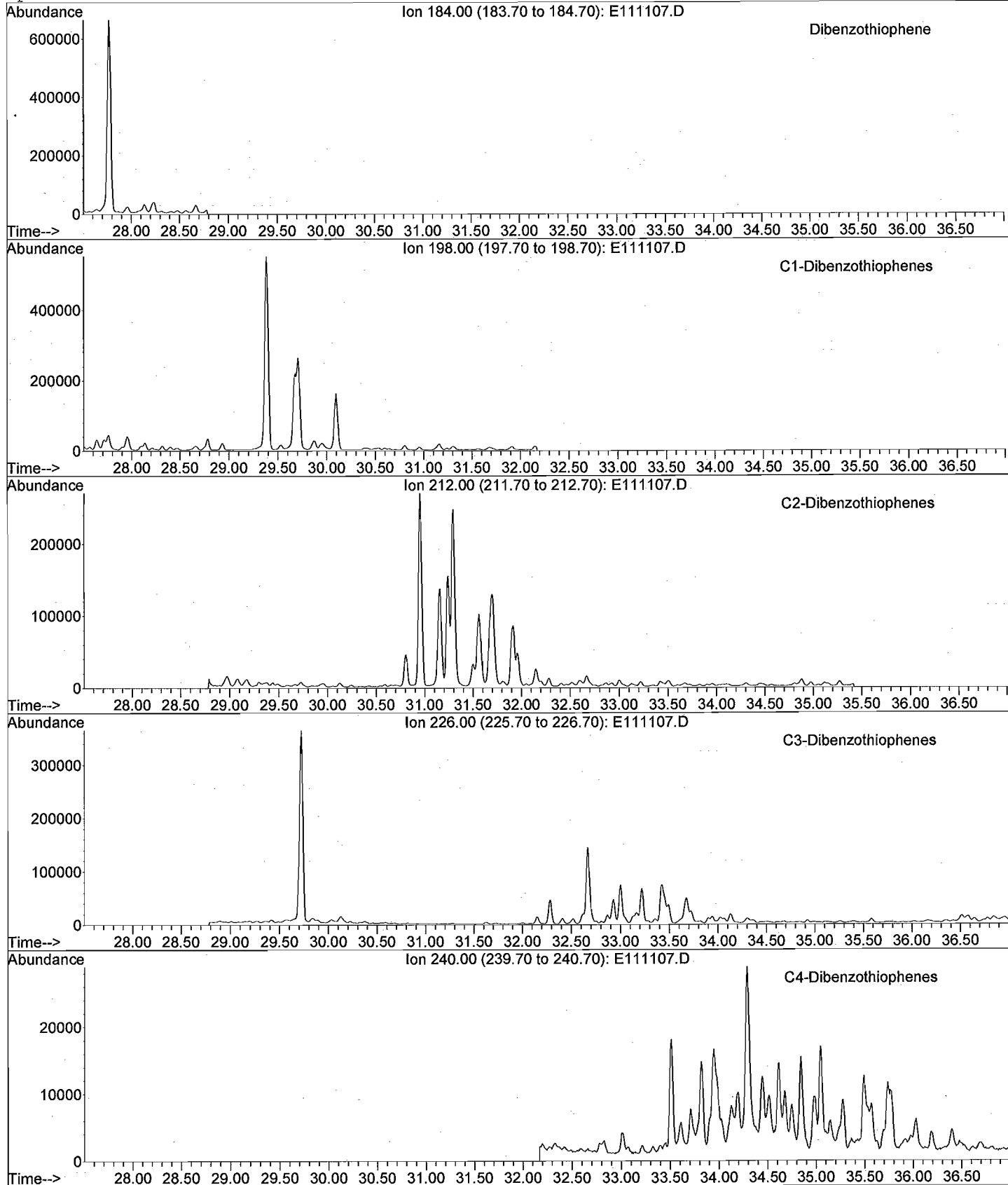
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



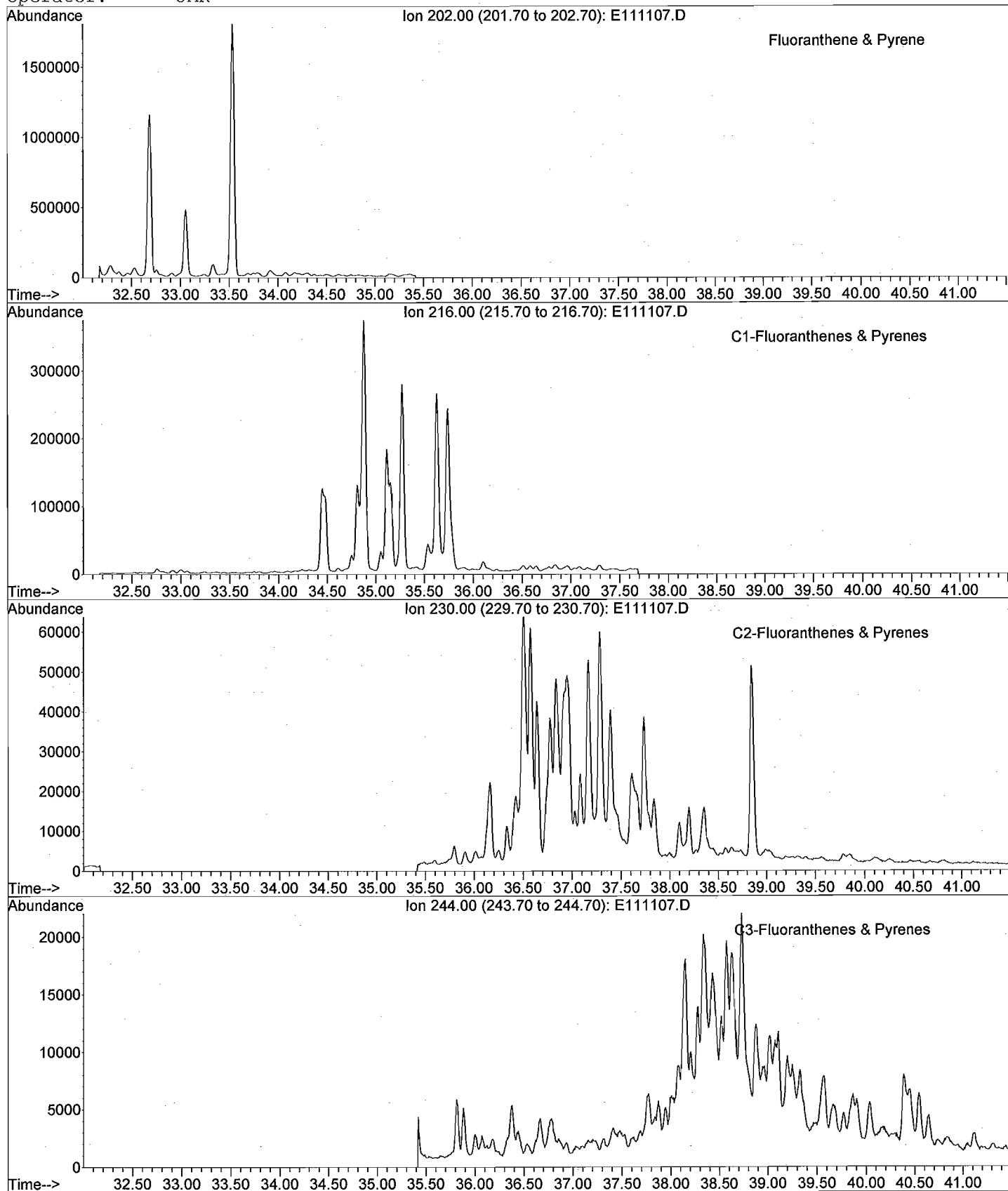
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



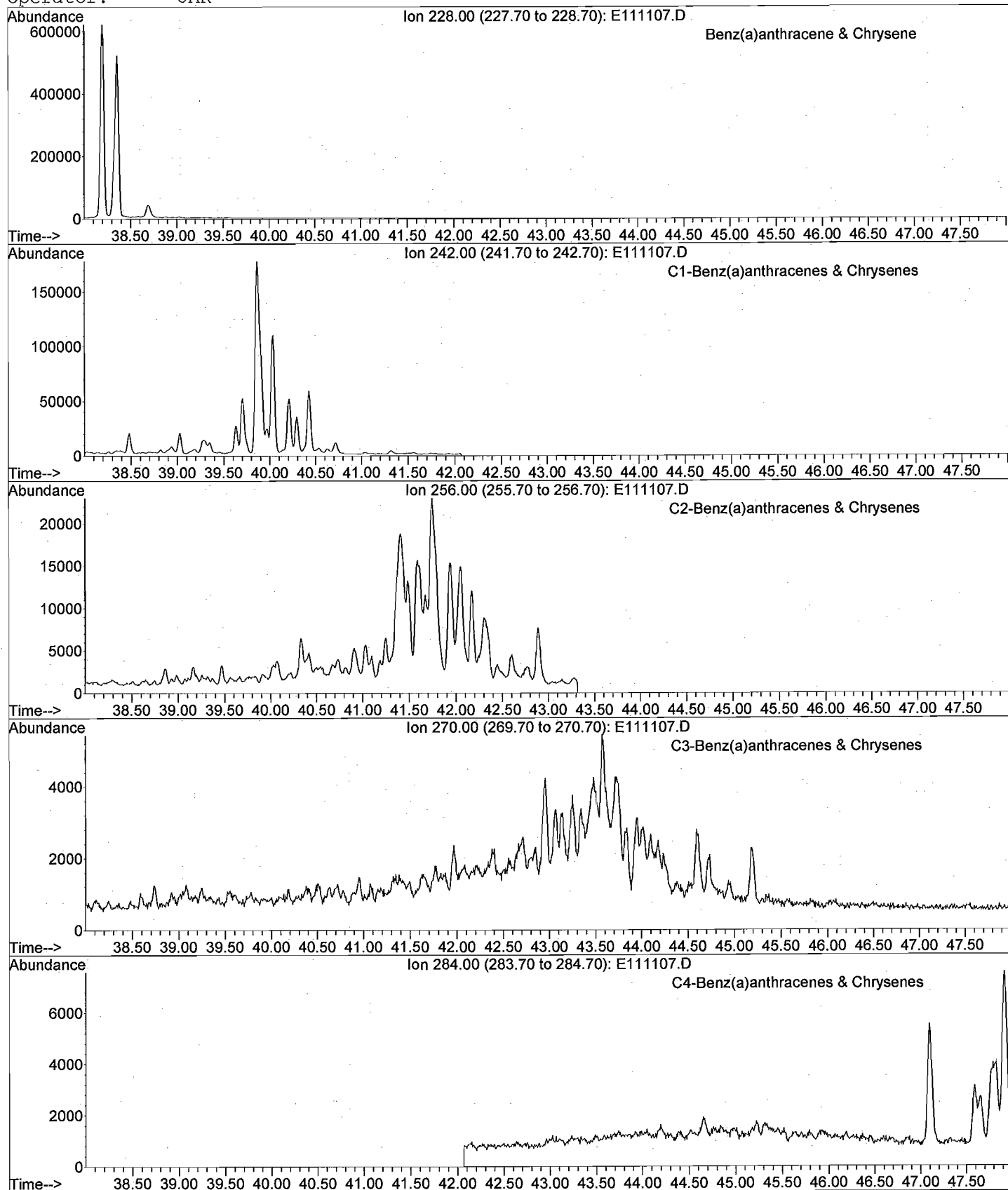
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



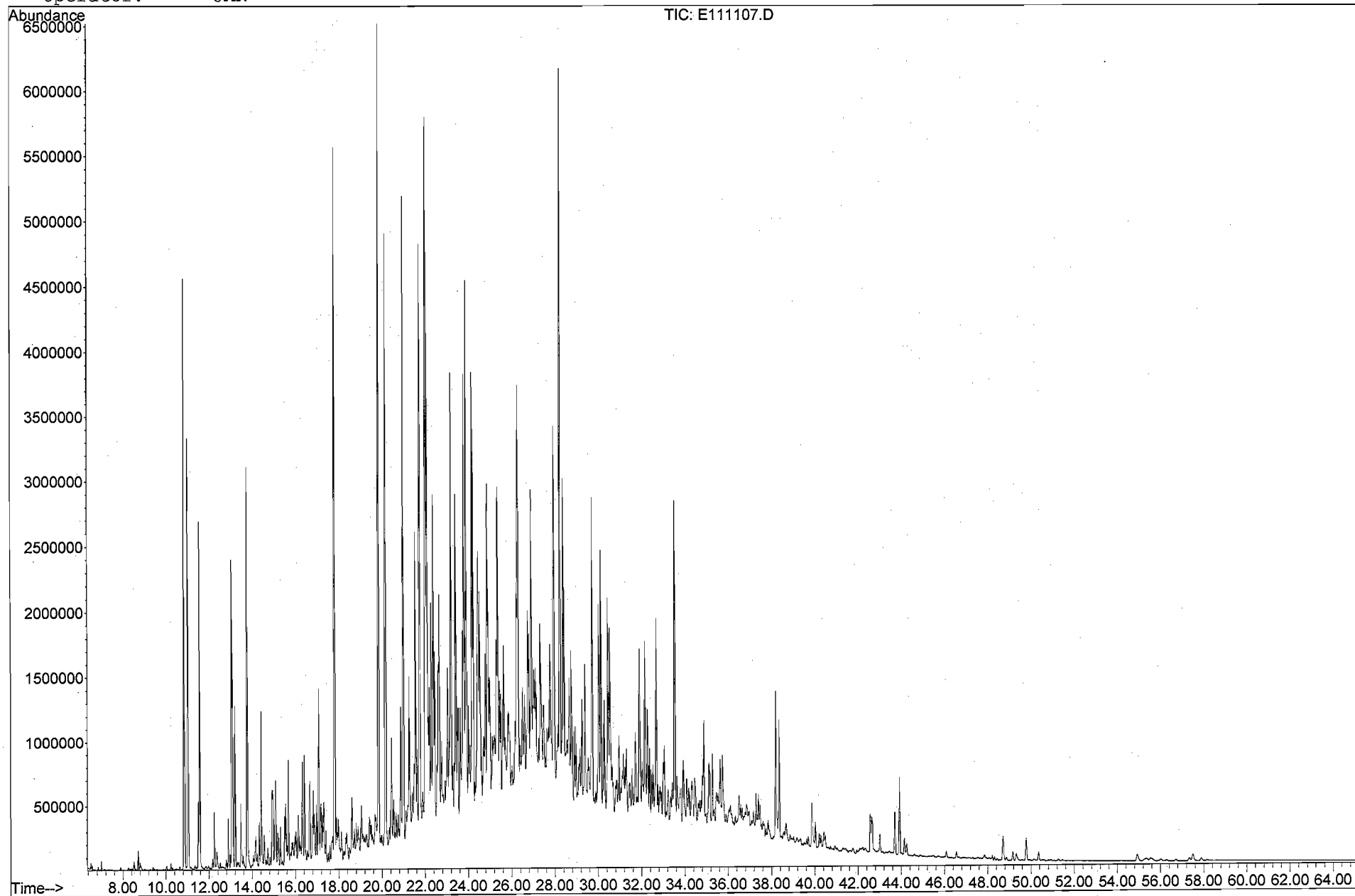
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



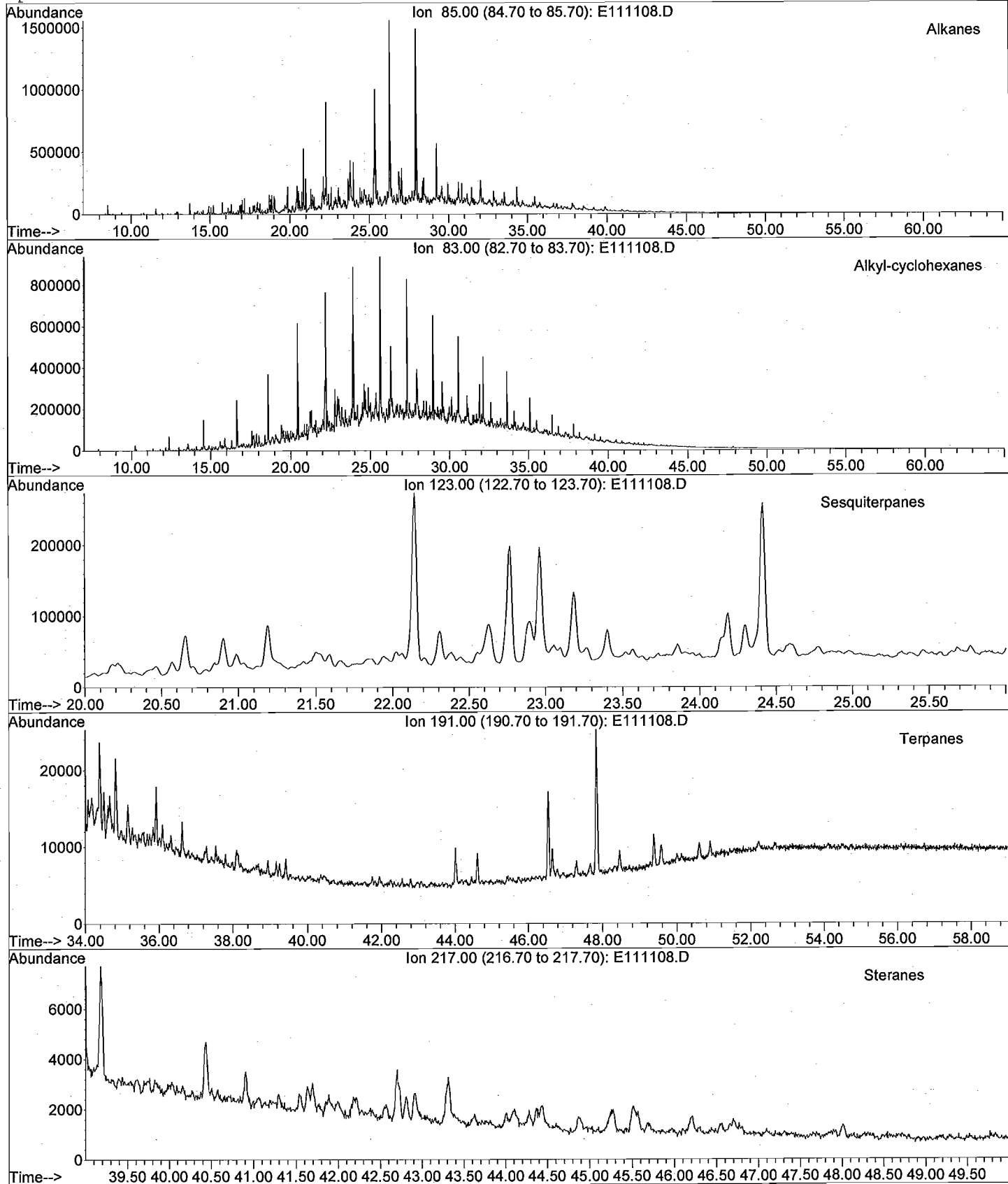
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



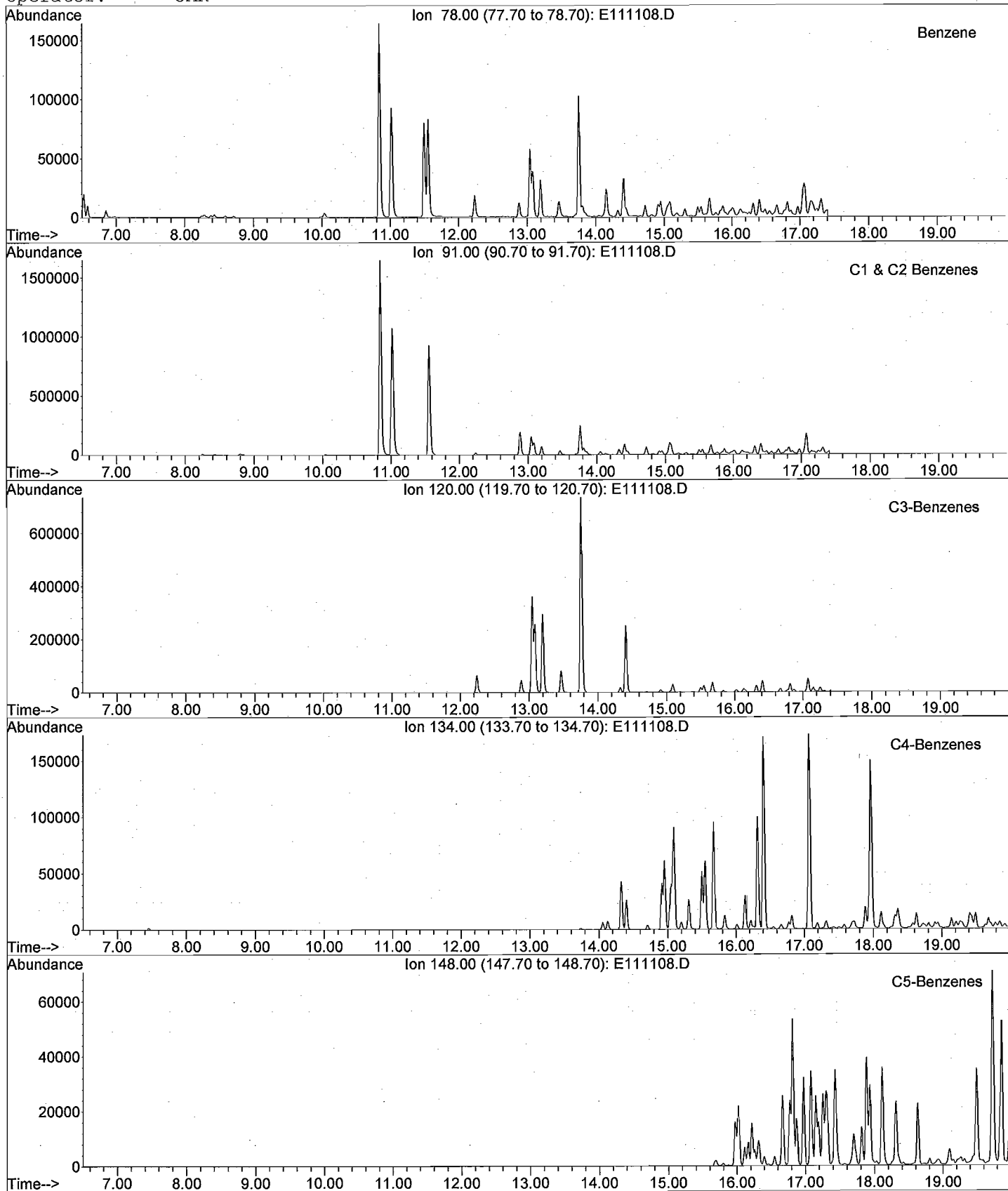
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



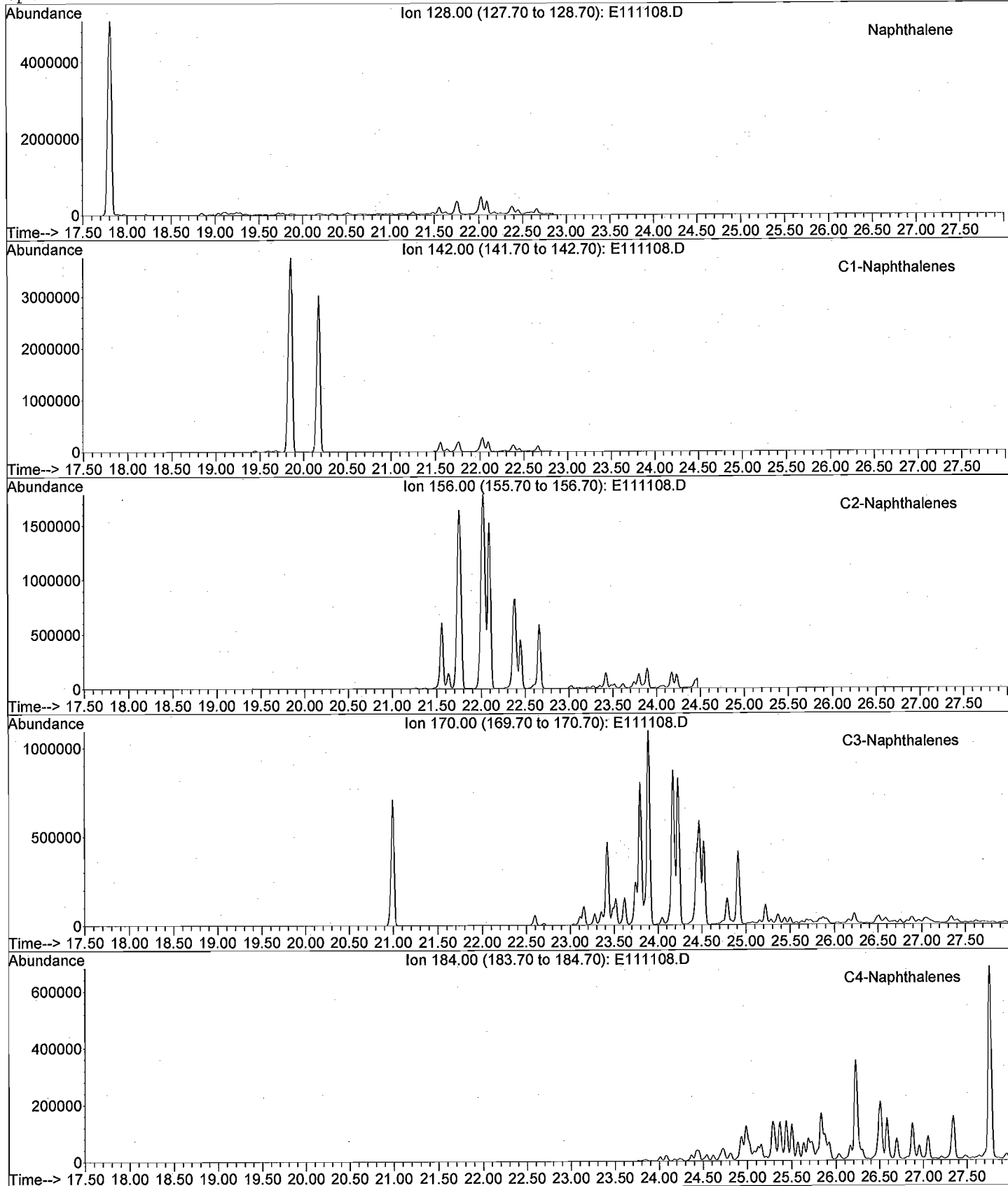
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB -- 110/25-29
Operator: JAR



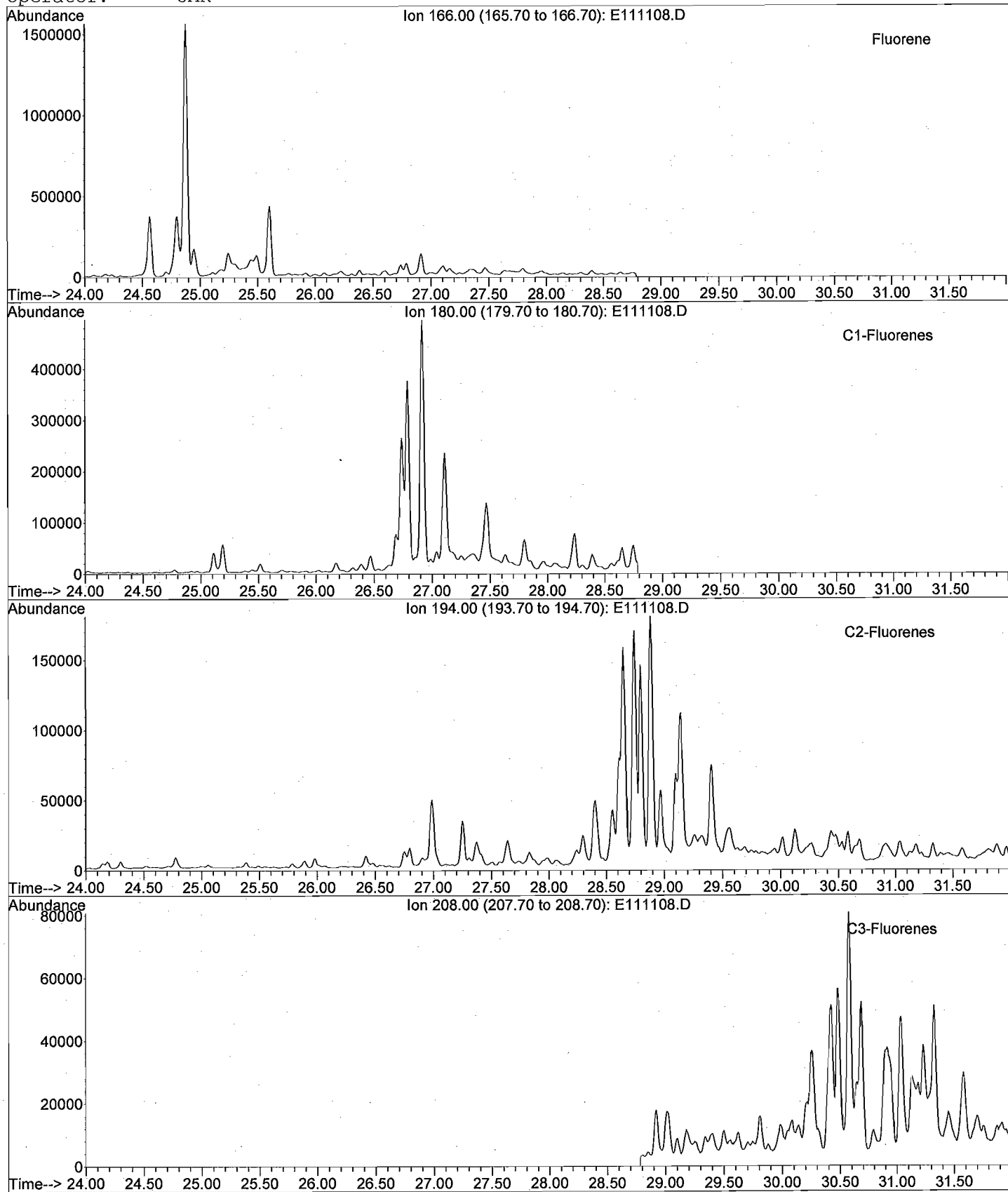
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



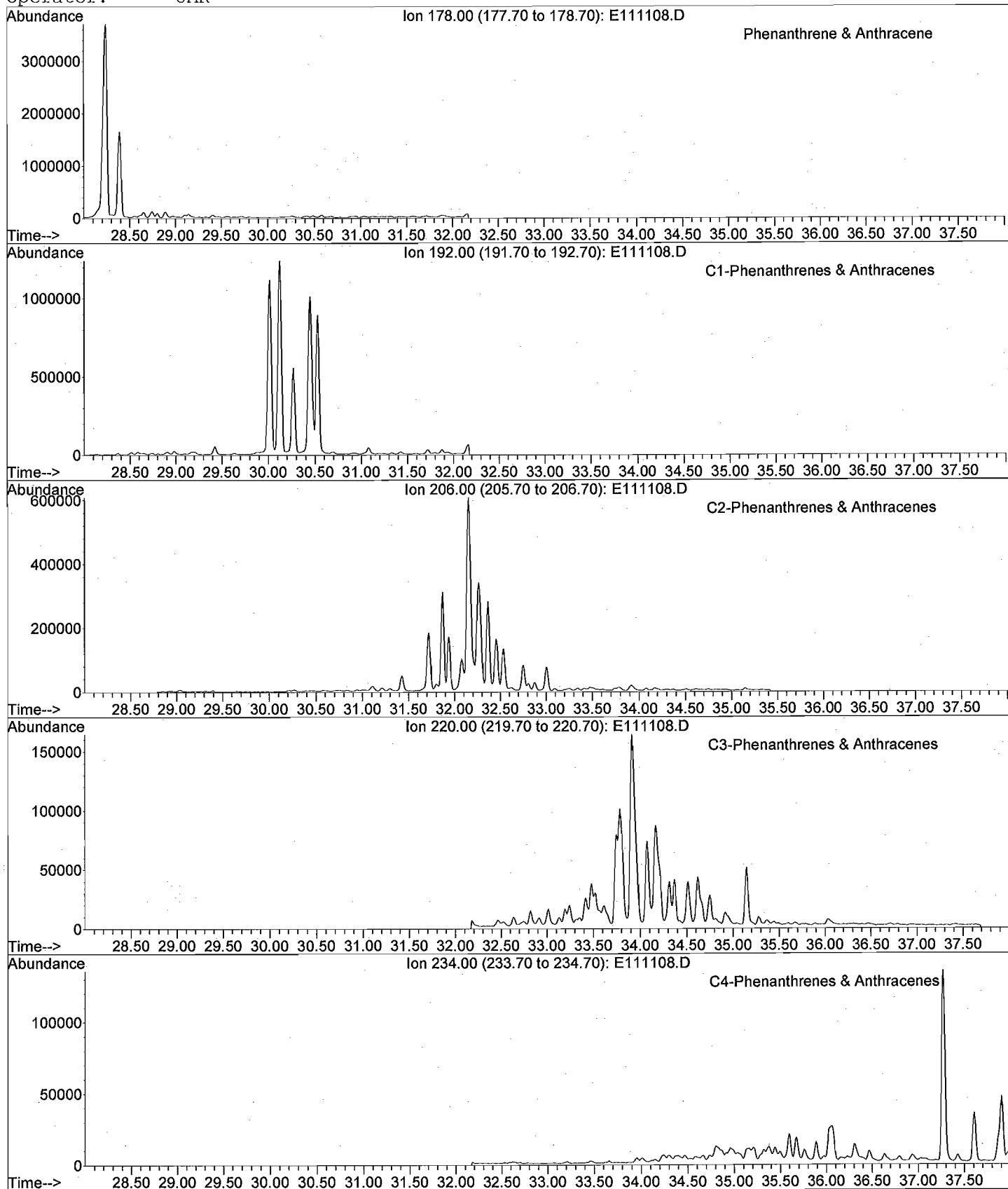
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



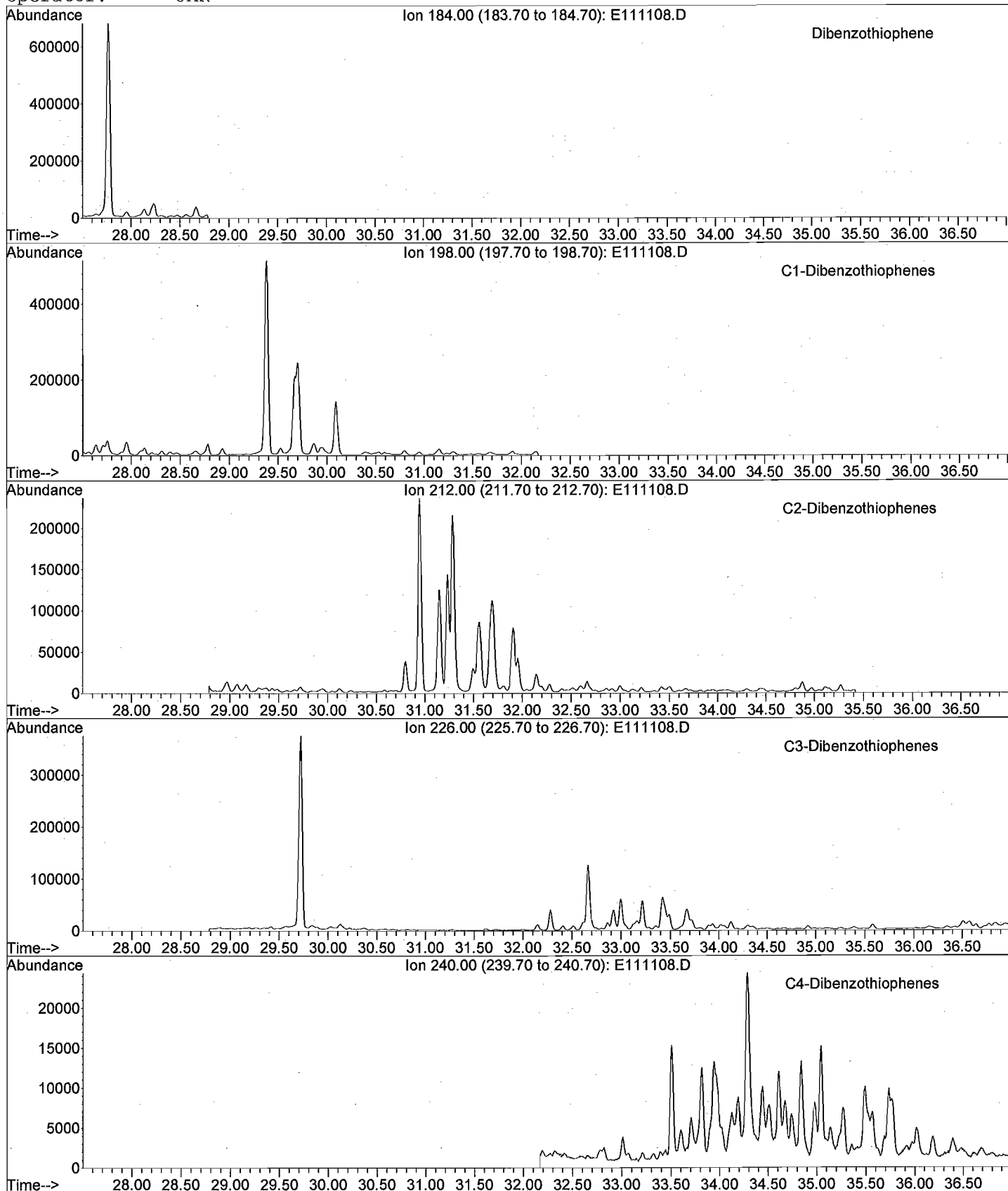
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



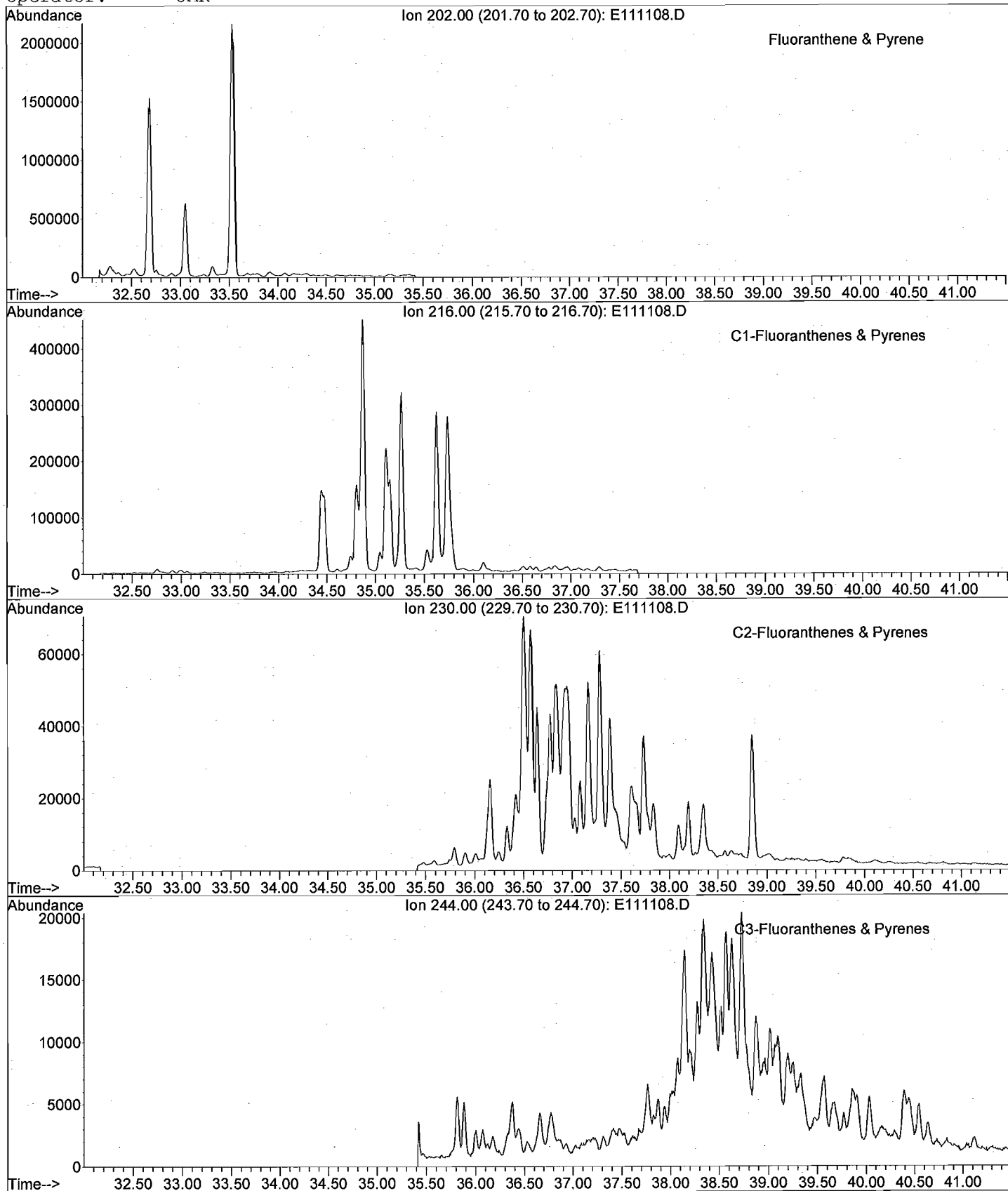
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



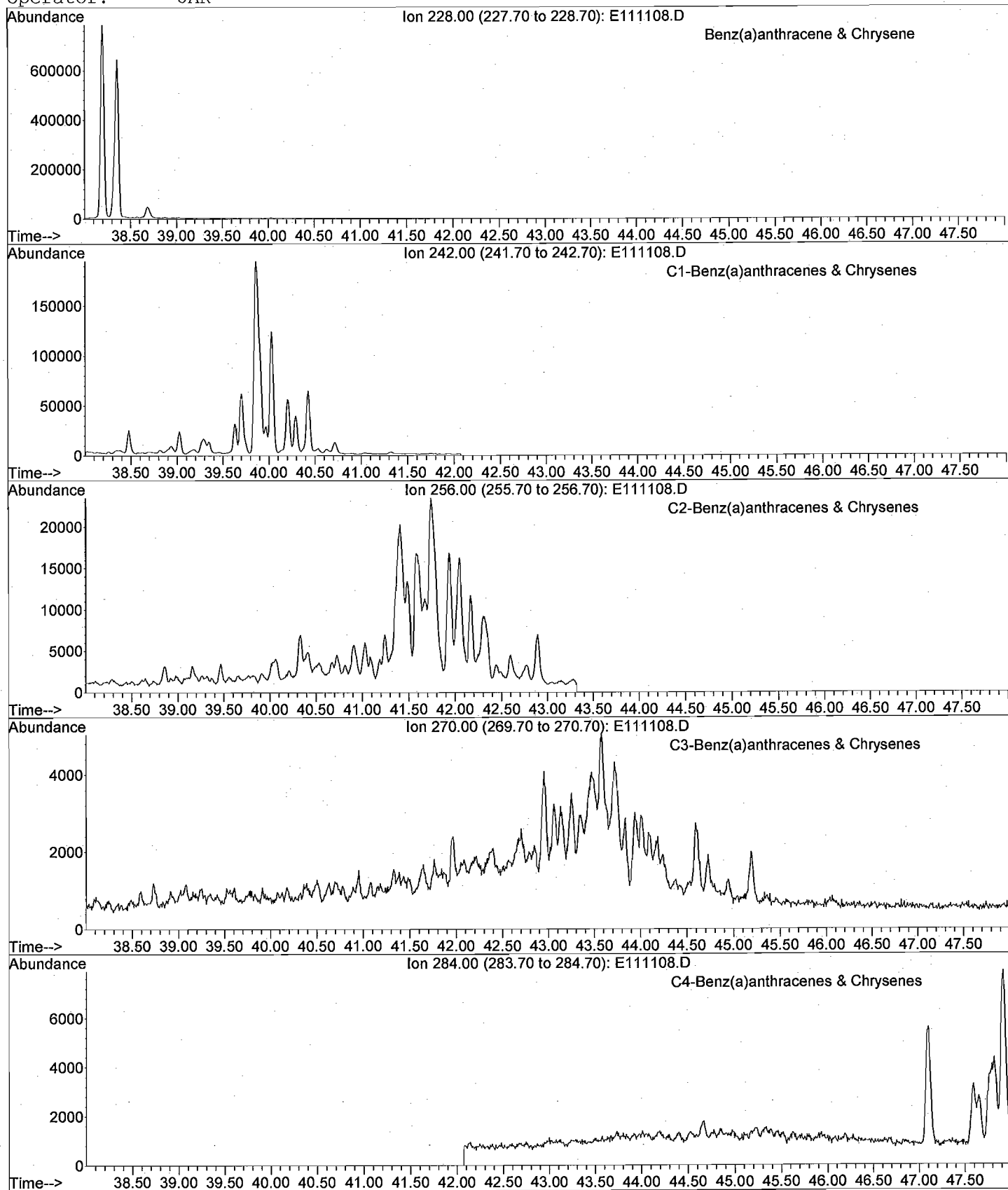
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



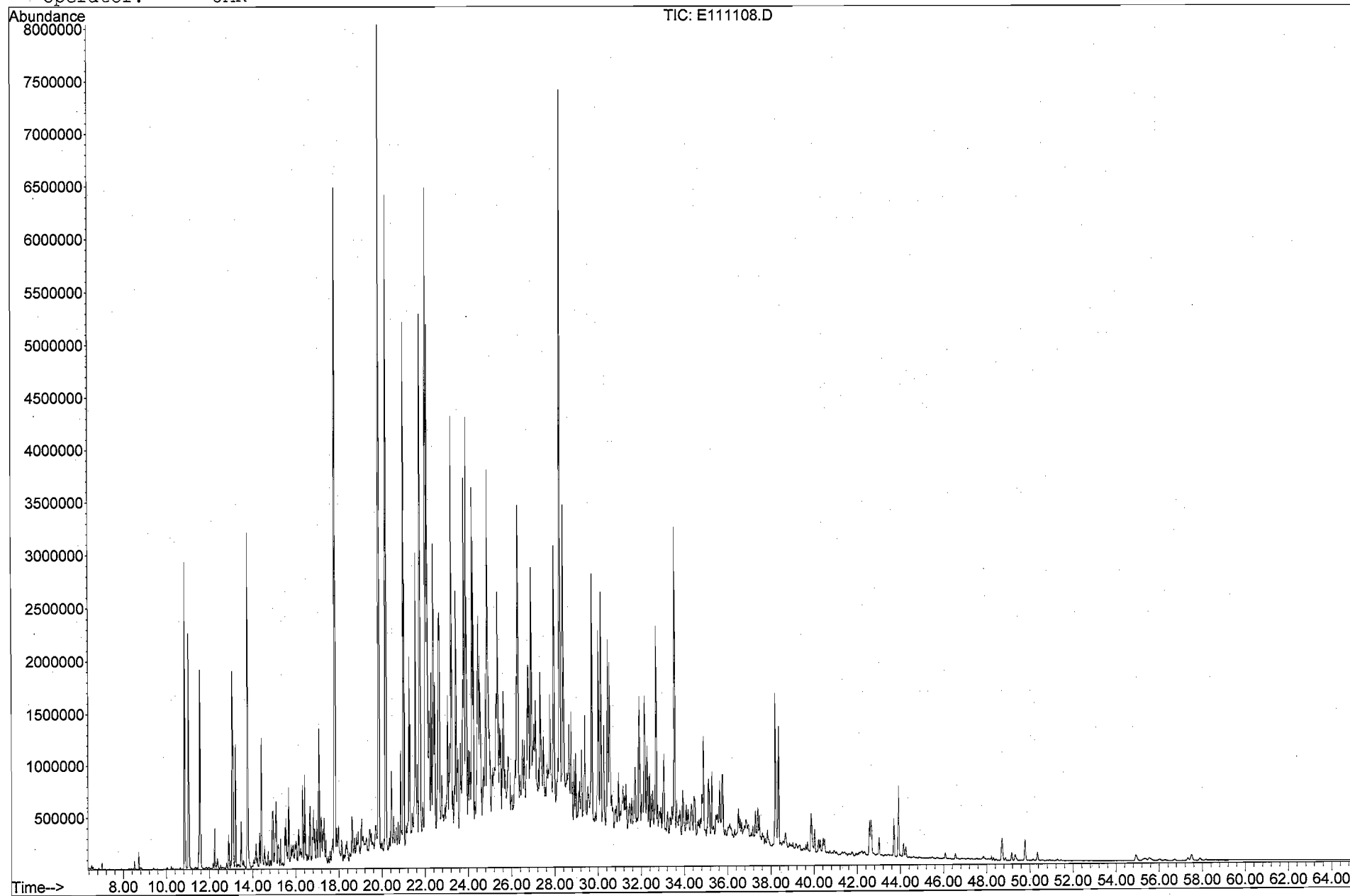
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



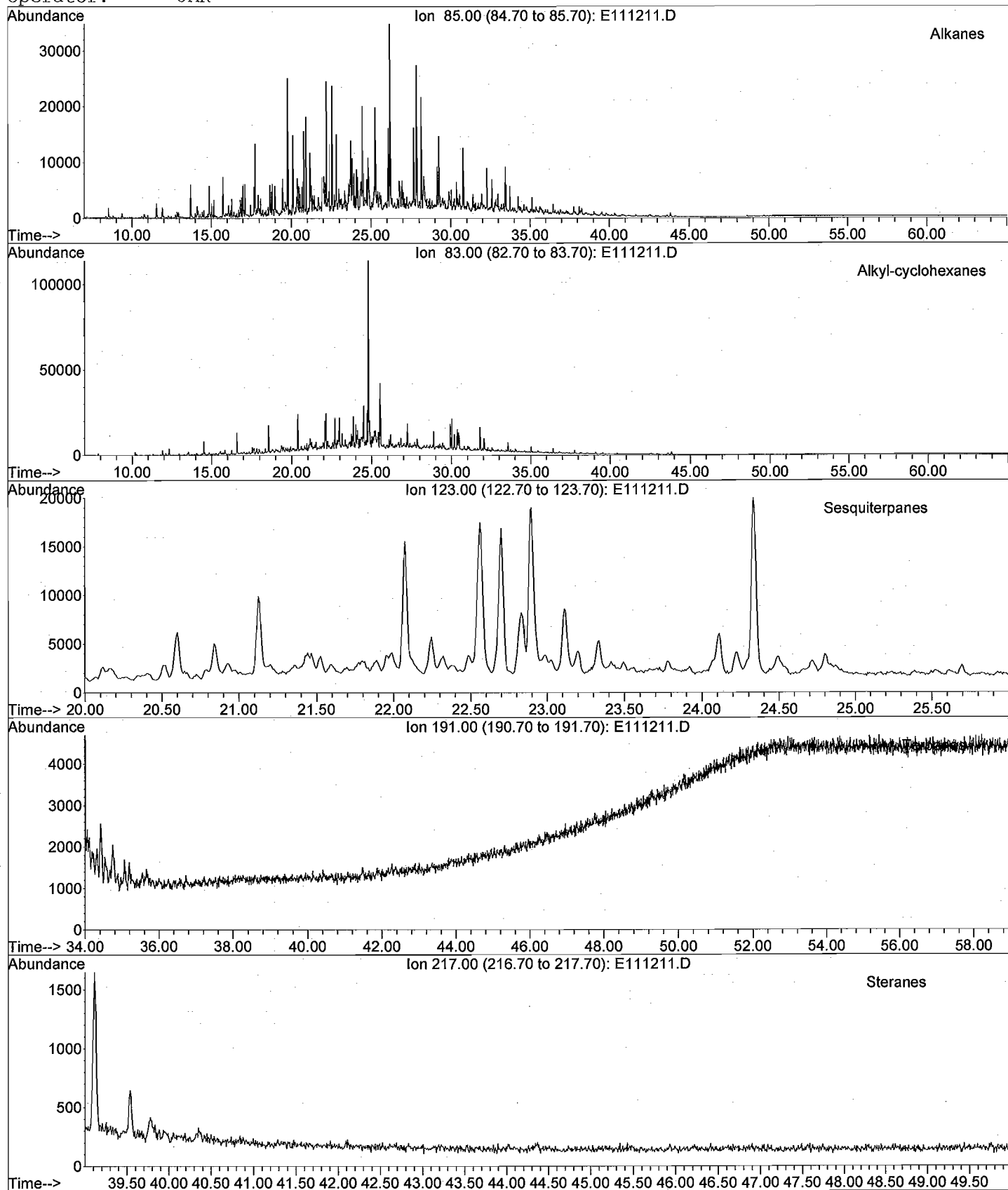
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
Date Acquired: 12 Nov 2008 12:27 am
Method File: 4008SIMD.M
Sample Name: HC081104-03
Misc Info: HISB - 110/25-29
Operator: JAR



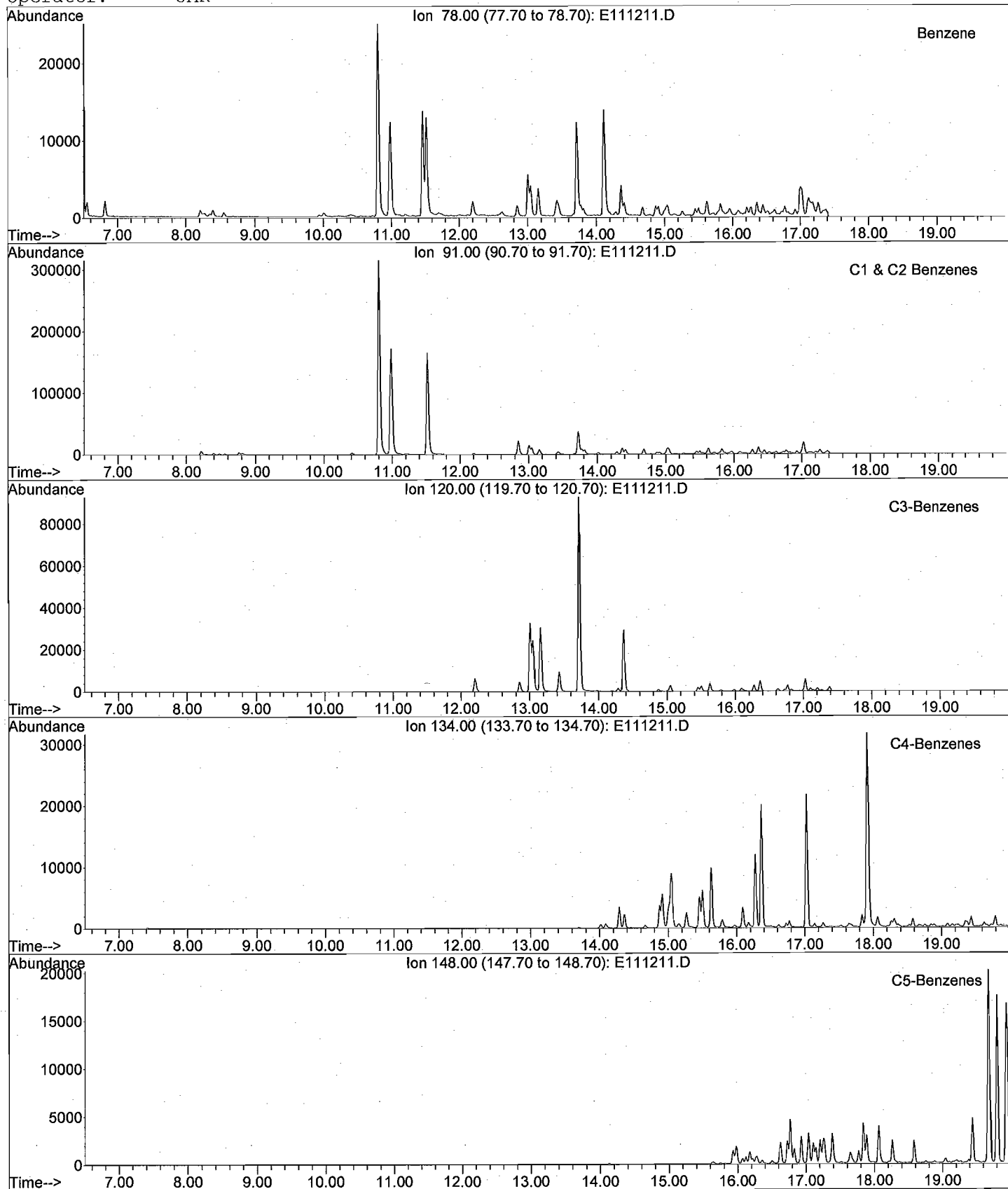
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



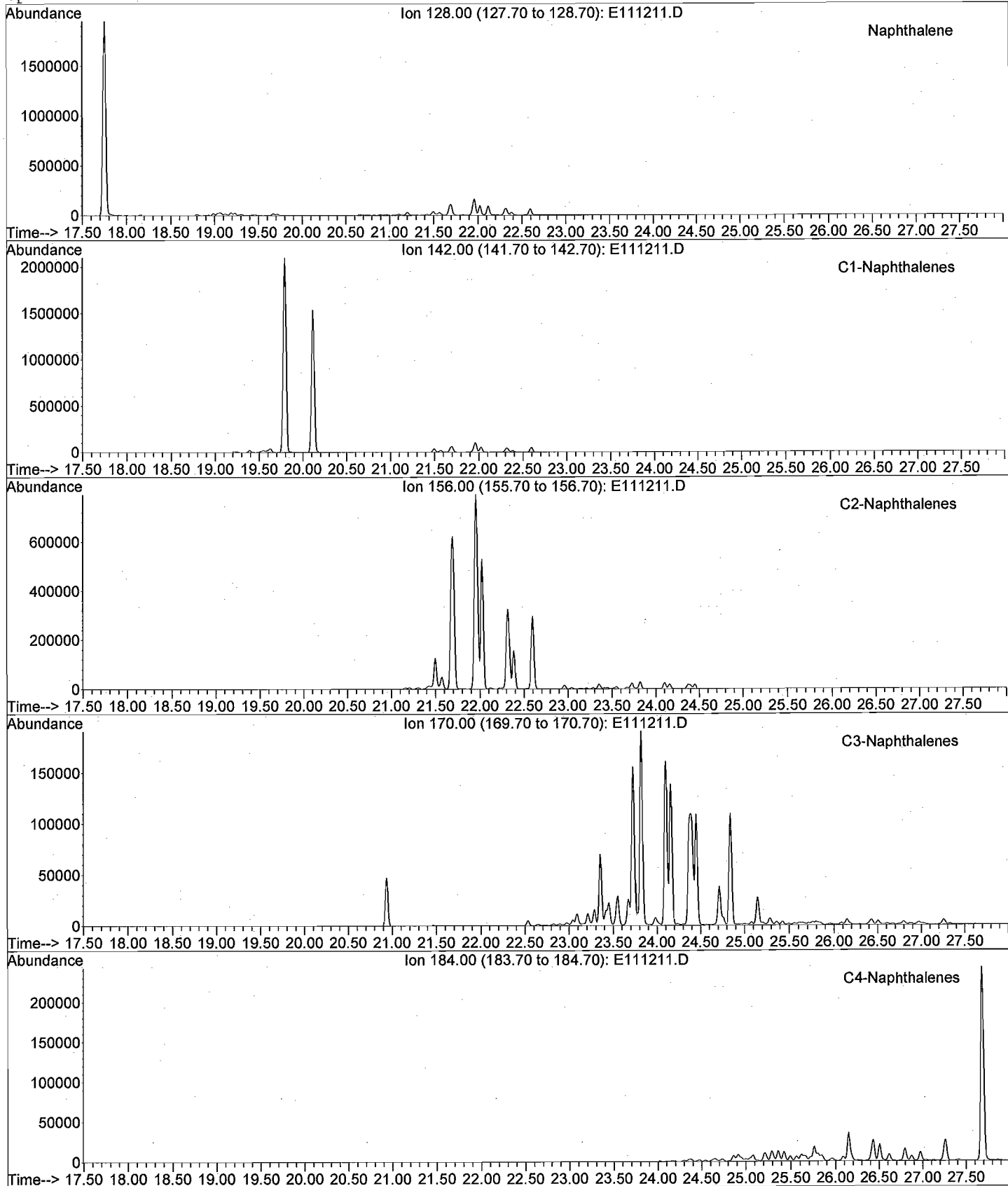
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



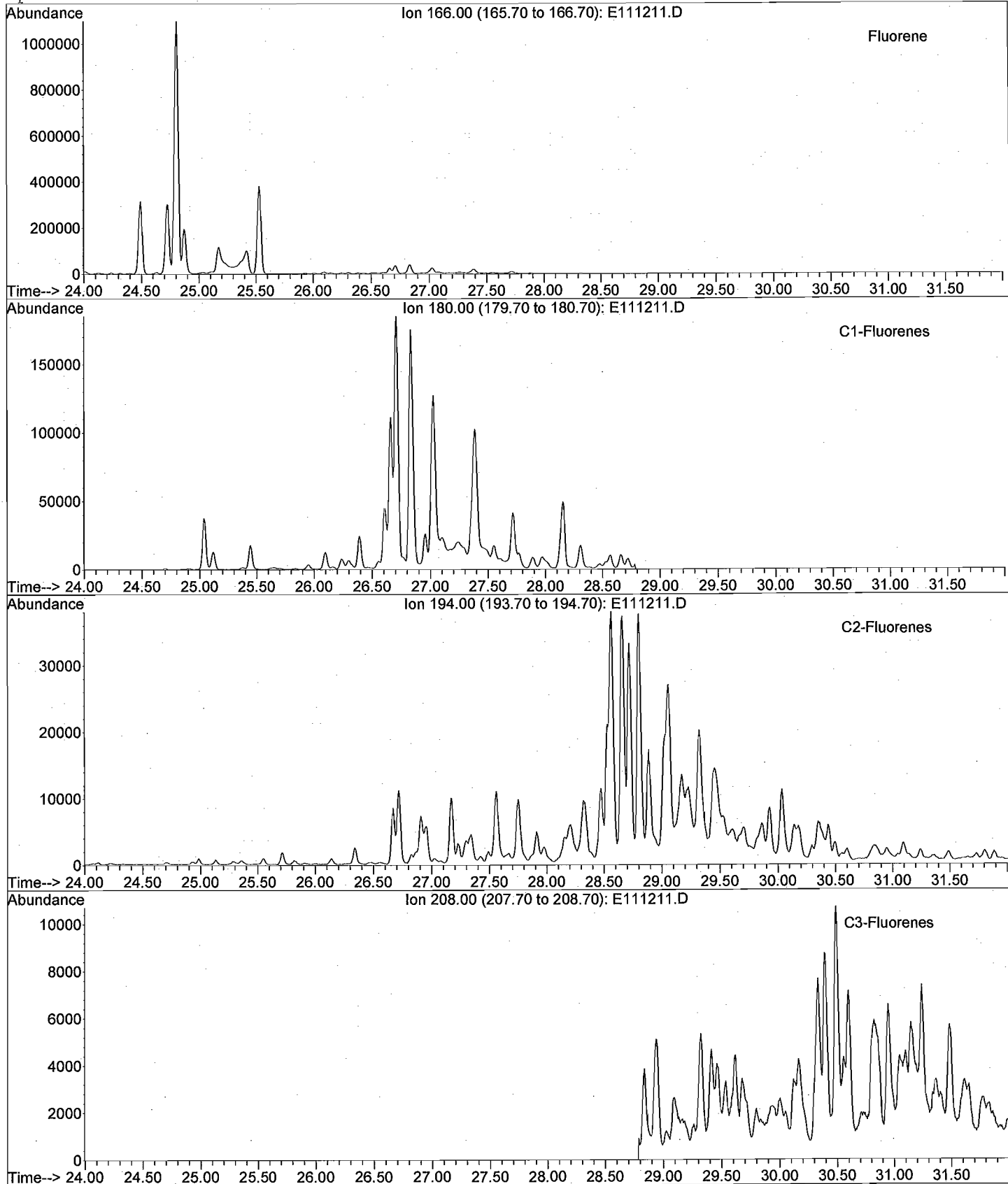
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



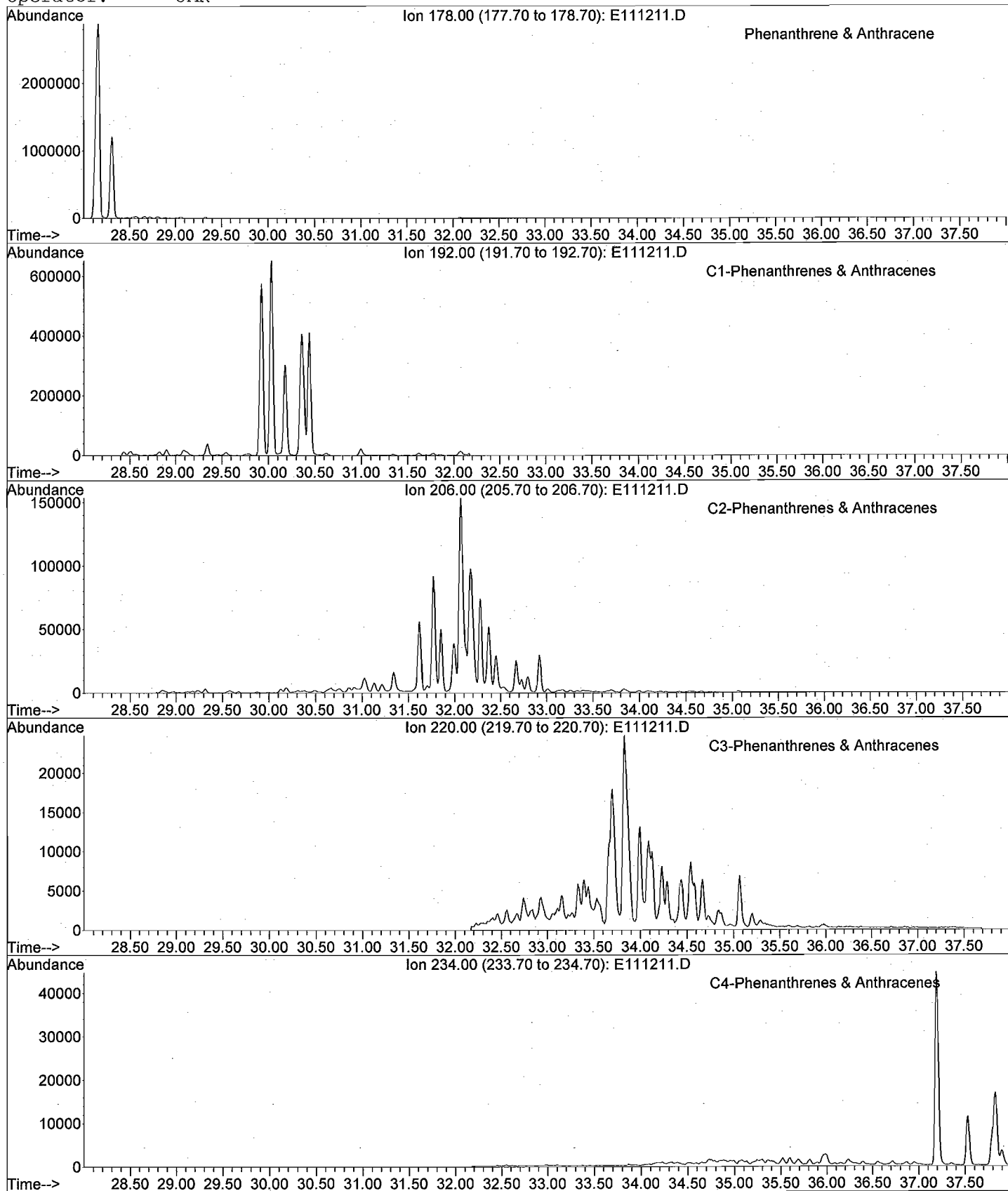
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



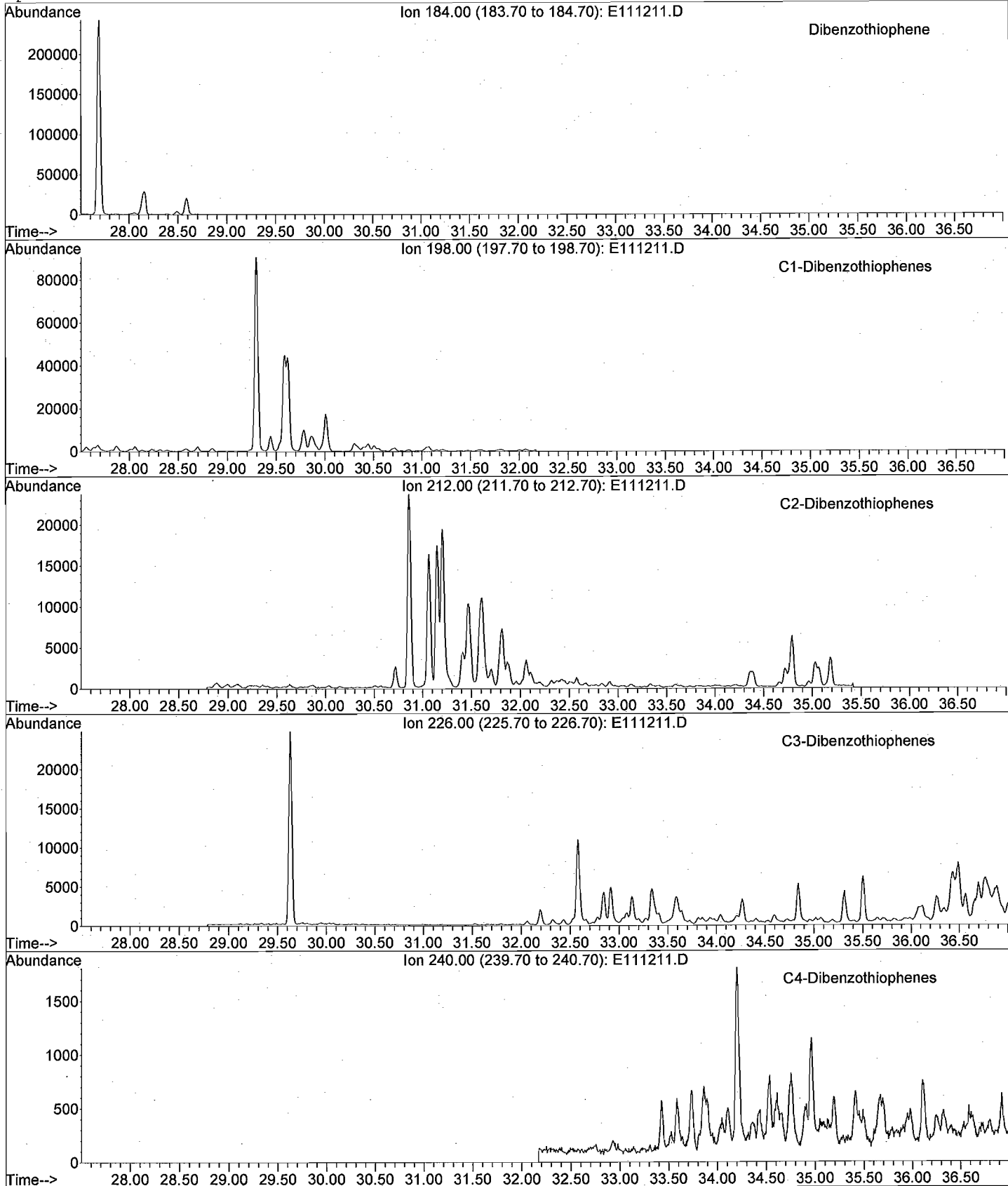
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



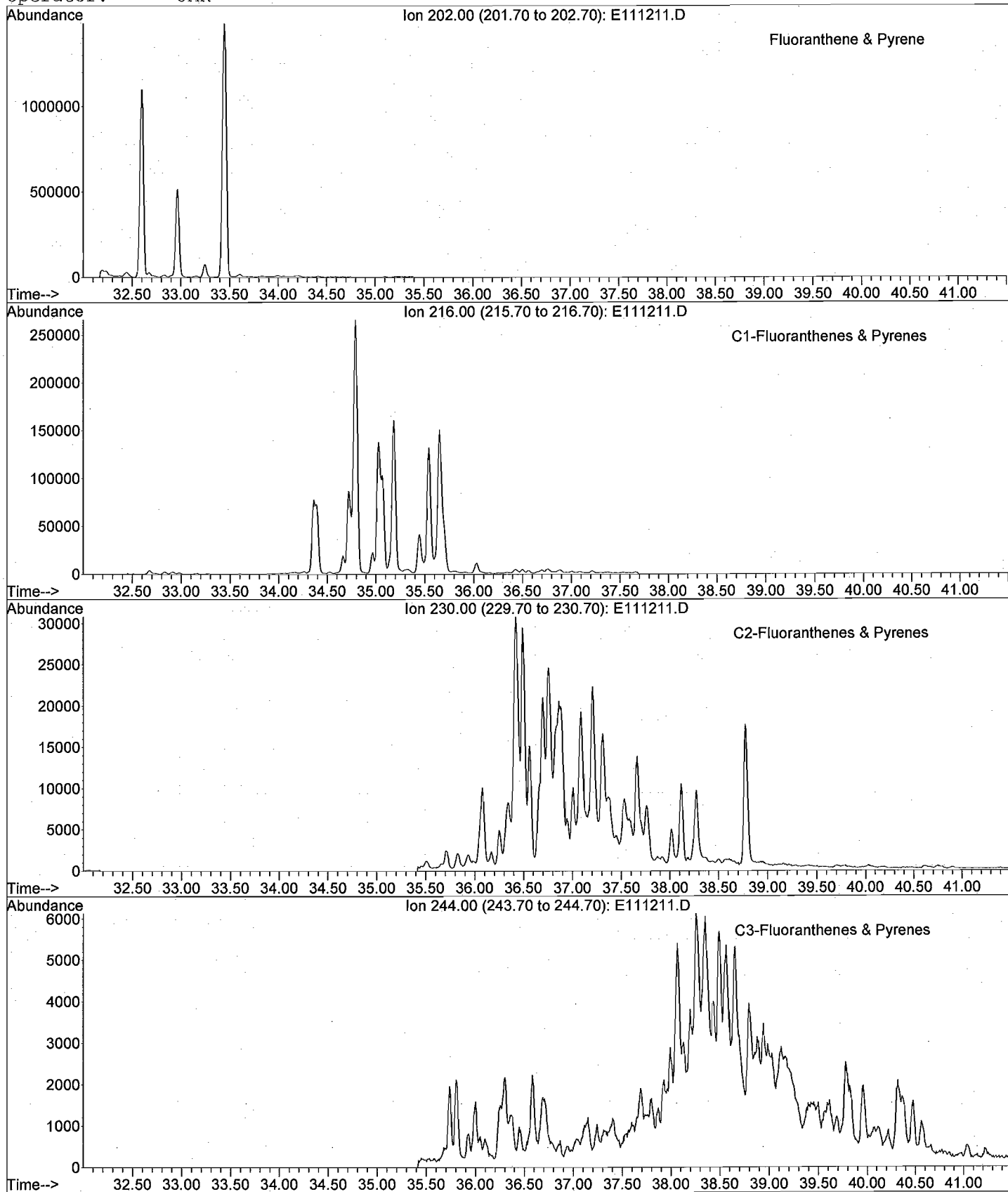
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



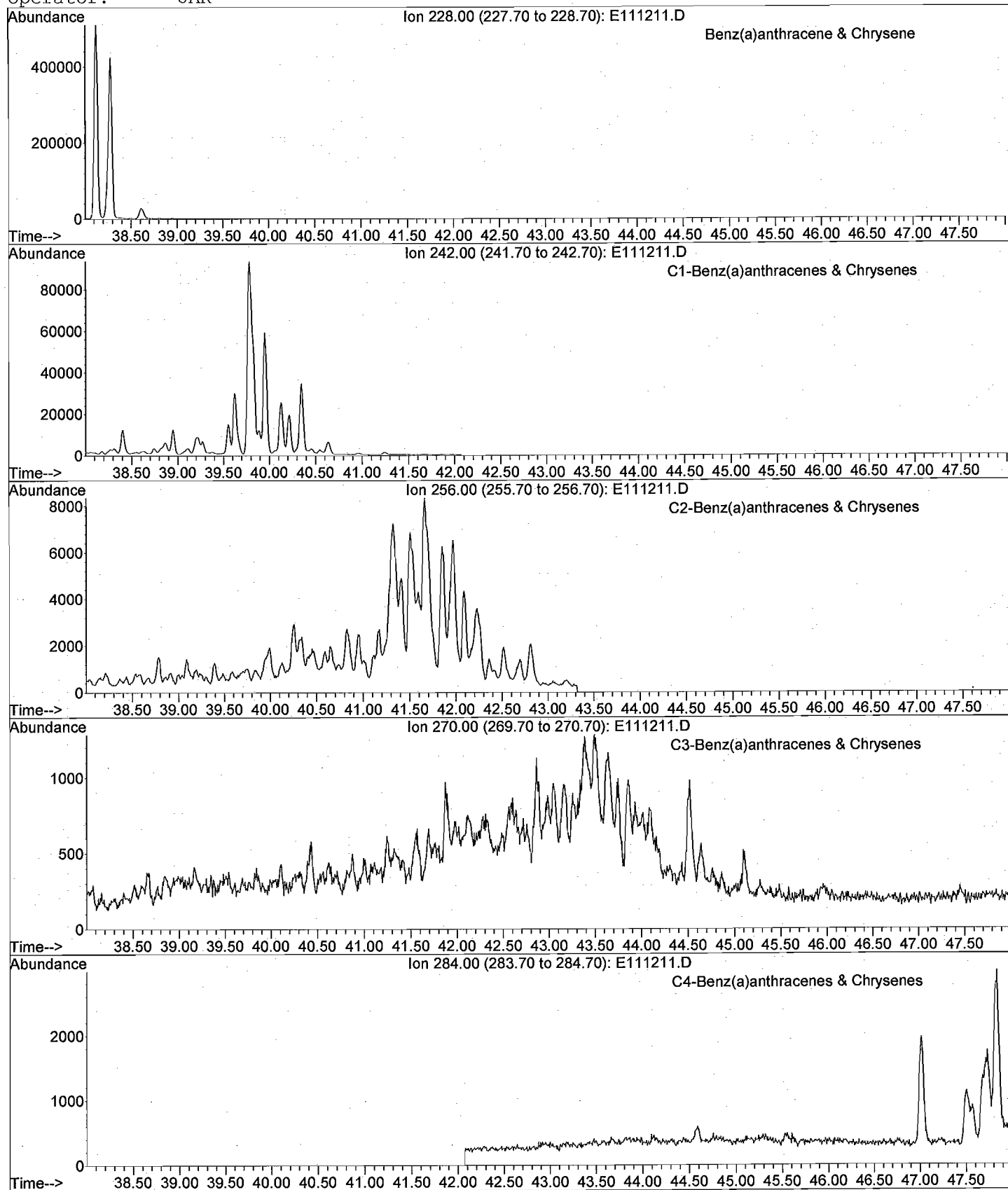
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



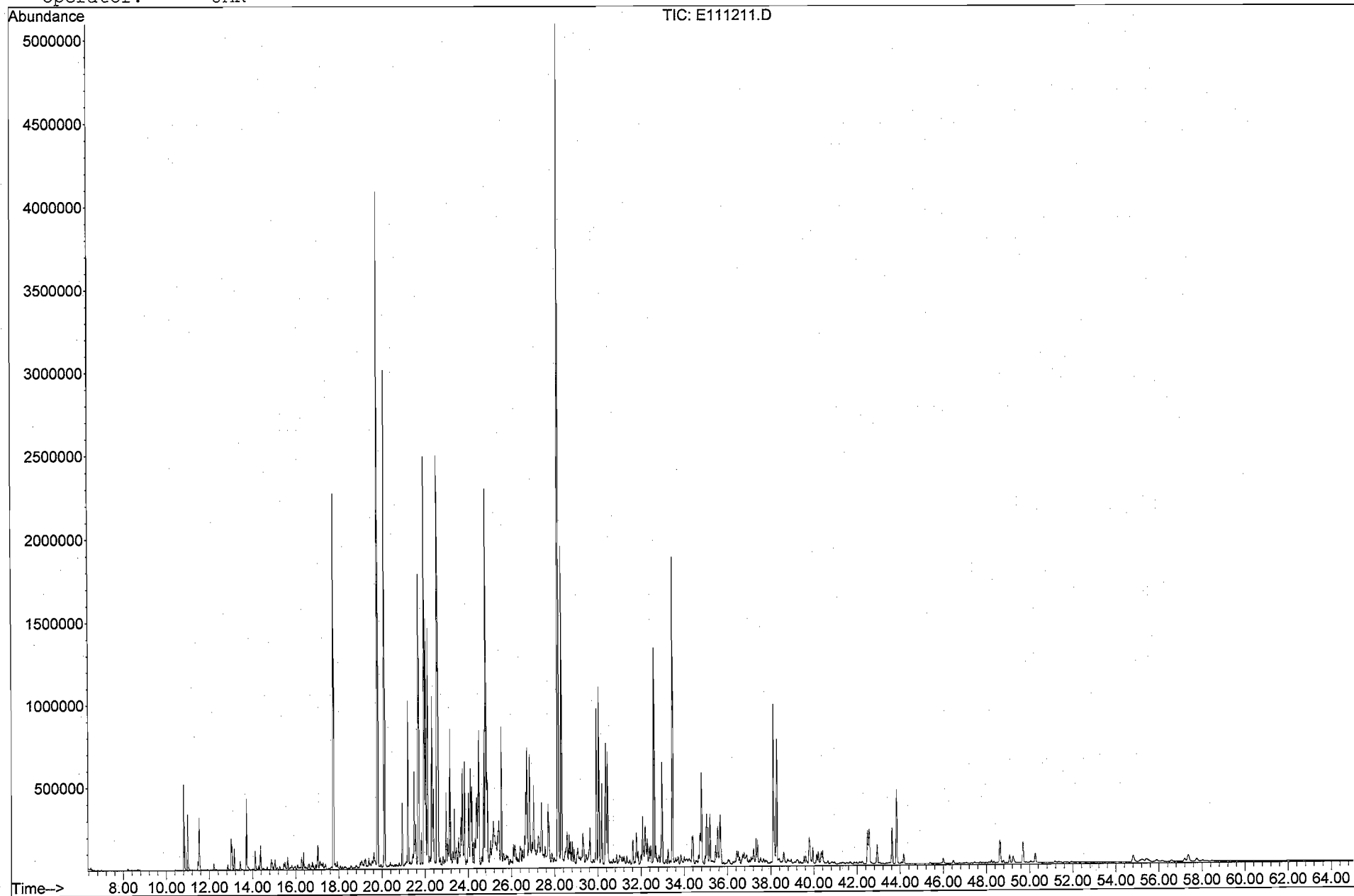
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



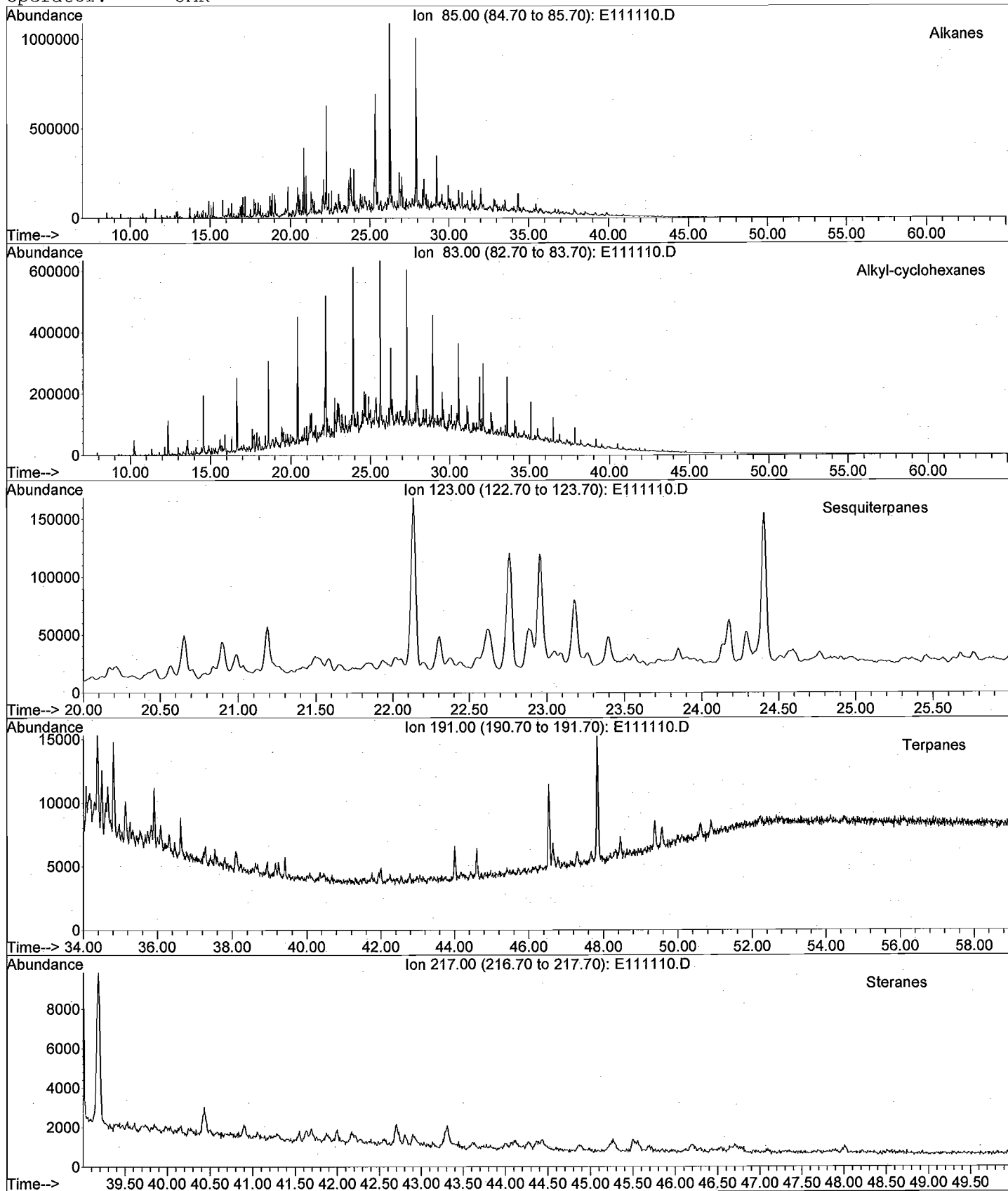
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
Date Acquired: 13 Nov 2008 3:42 am
Method File: 4008SIMD.M
Sample Name: HC081104-04-D
Misc Info: HISB - 110/29-30 - 10X
Operator: JAR



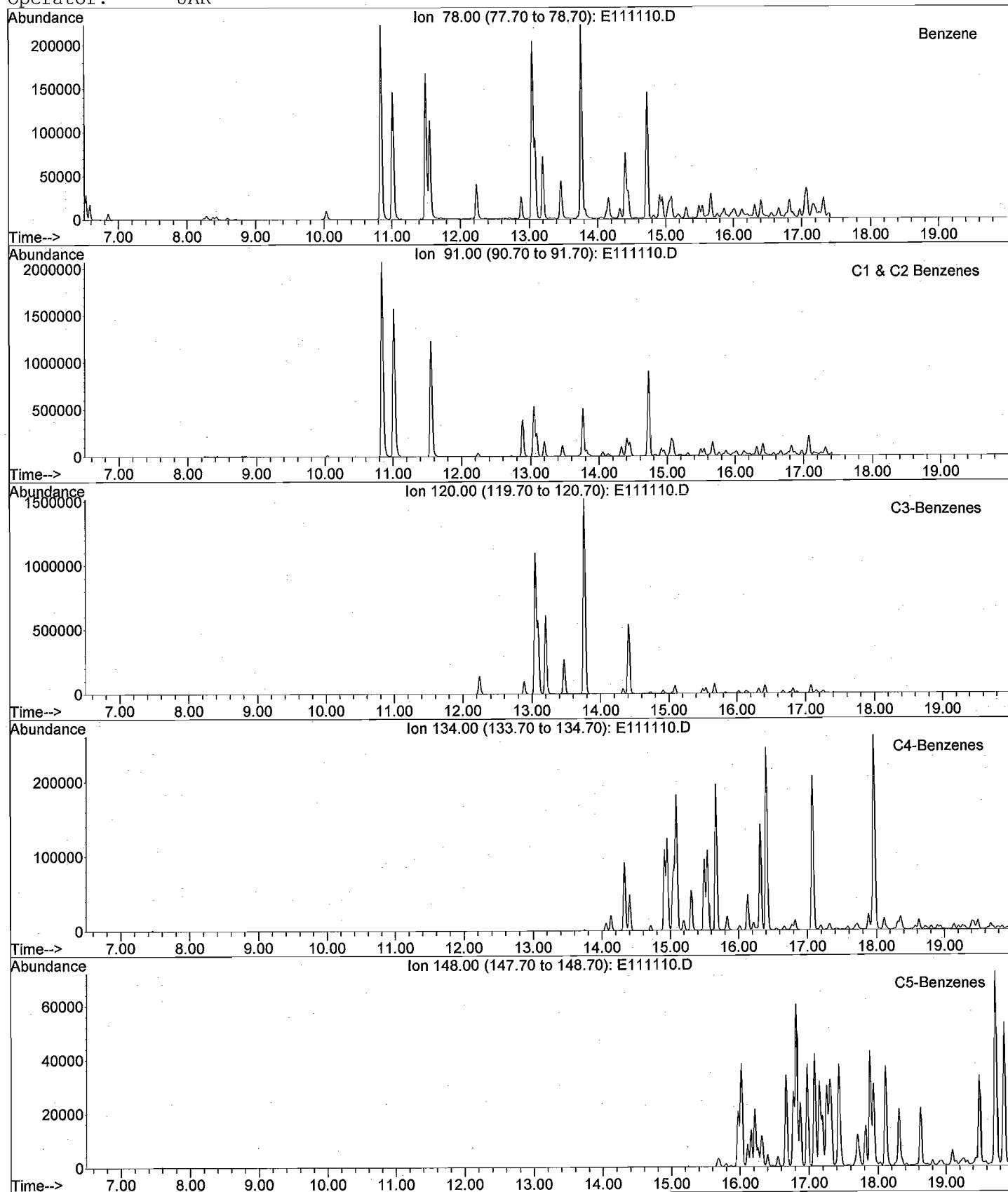
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



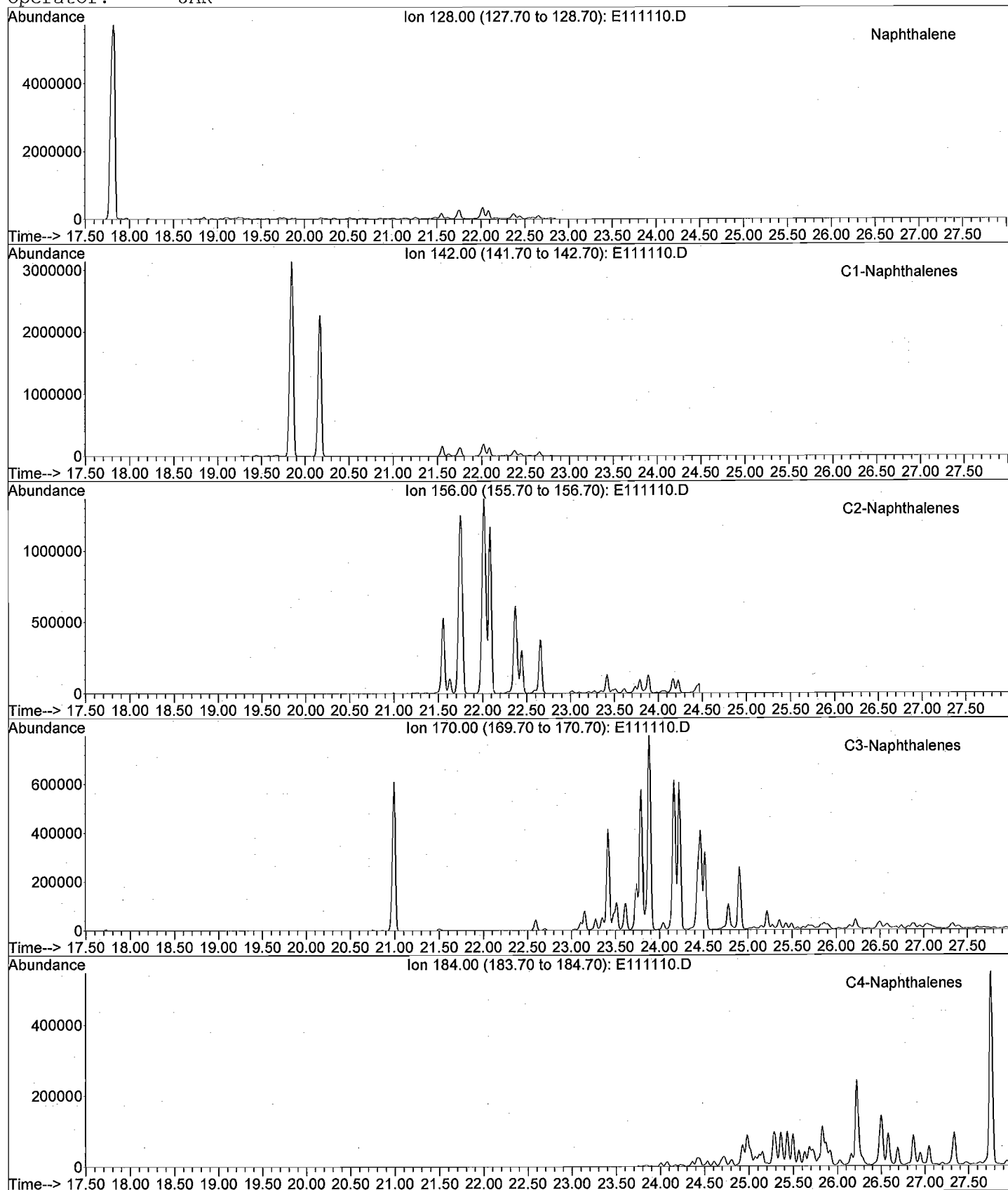
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



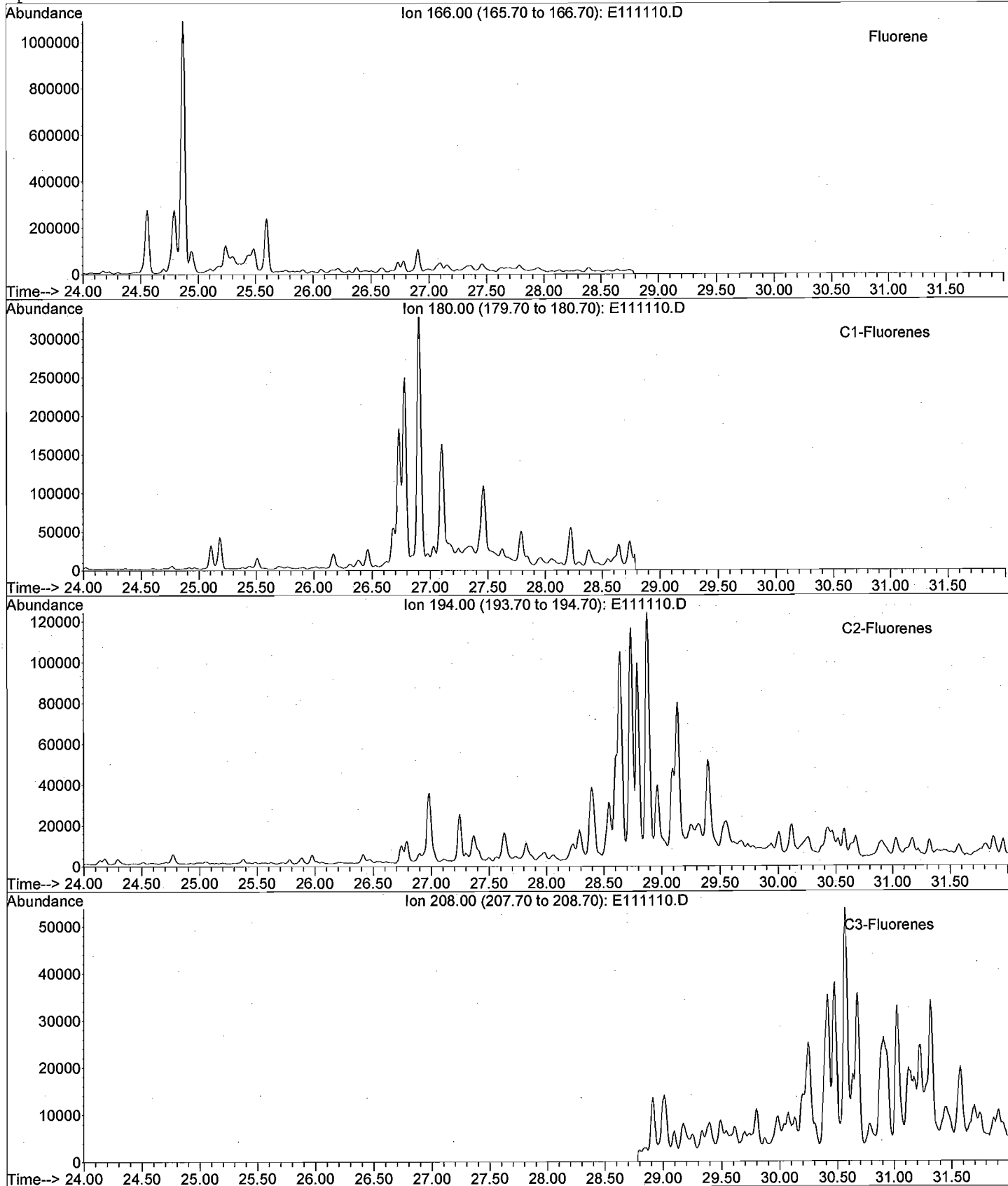
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



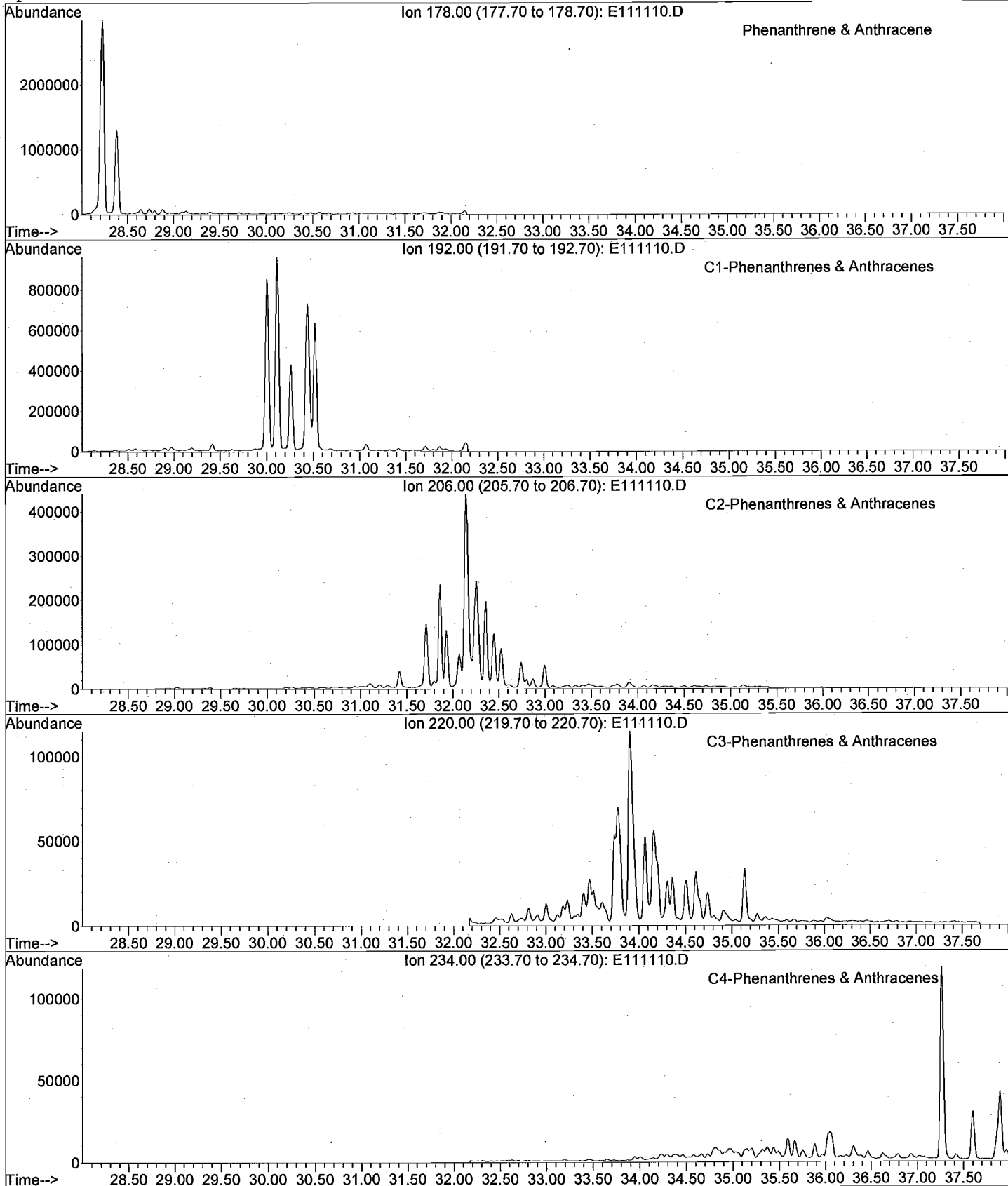
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



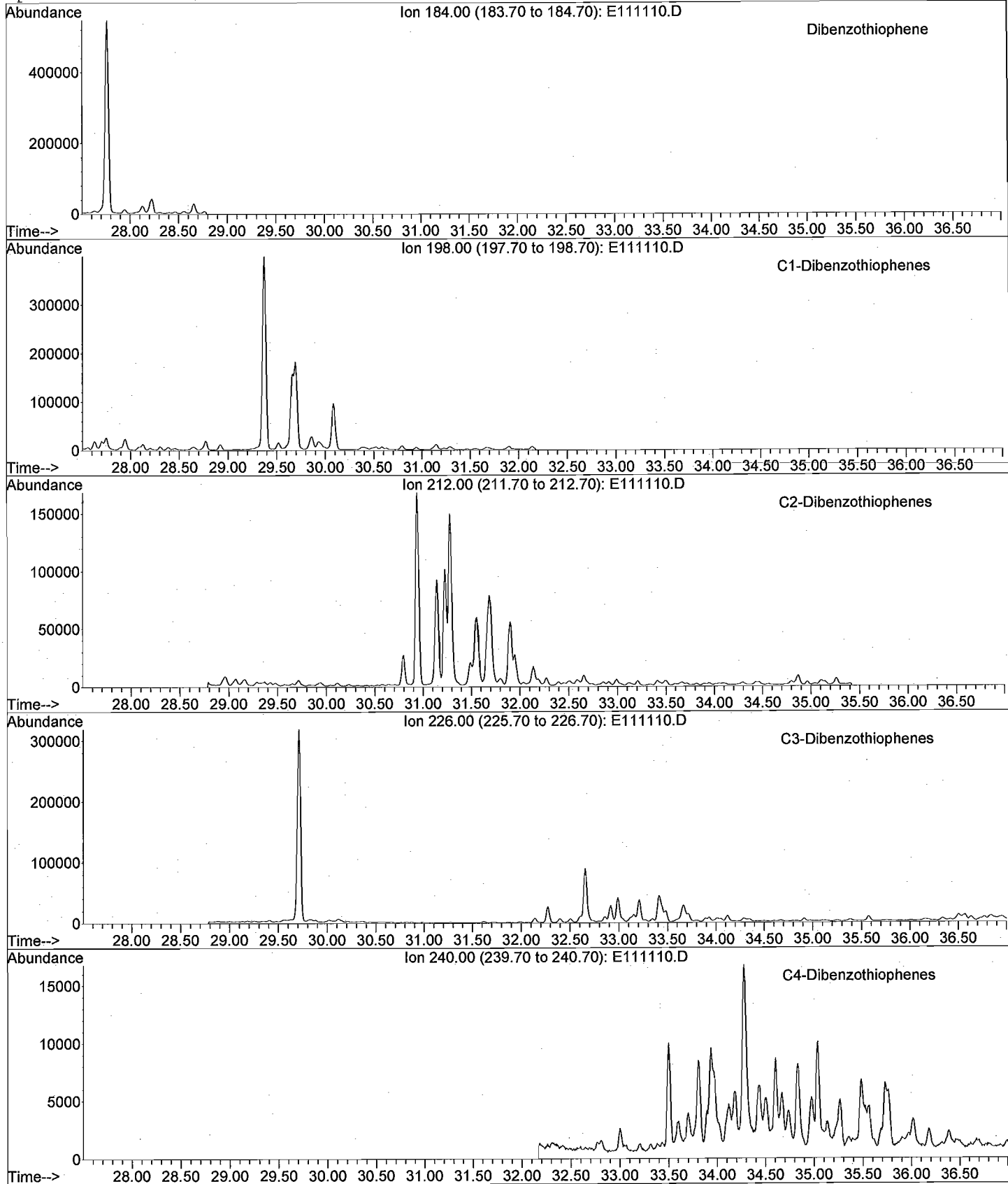
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



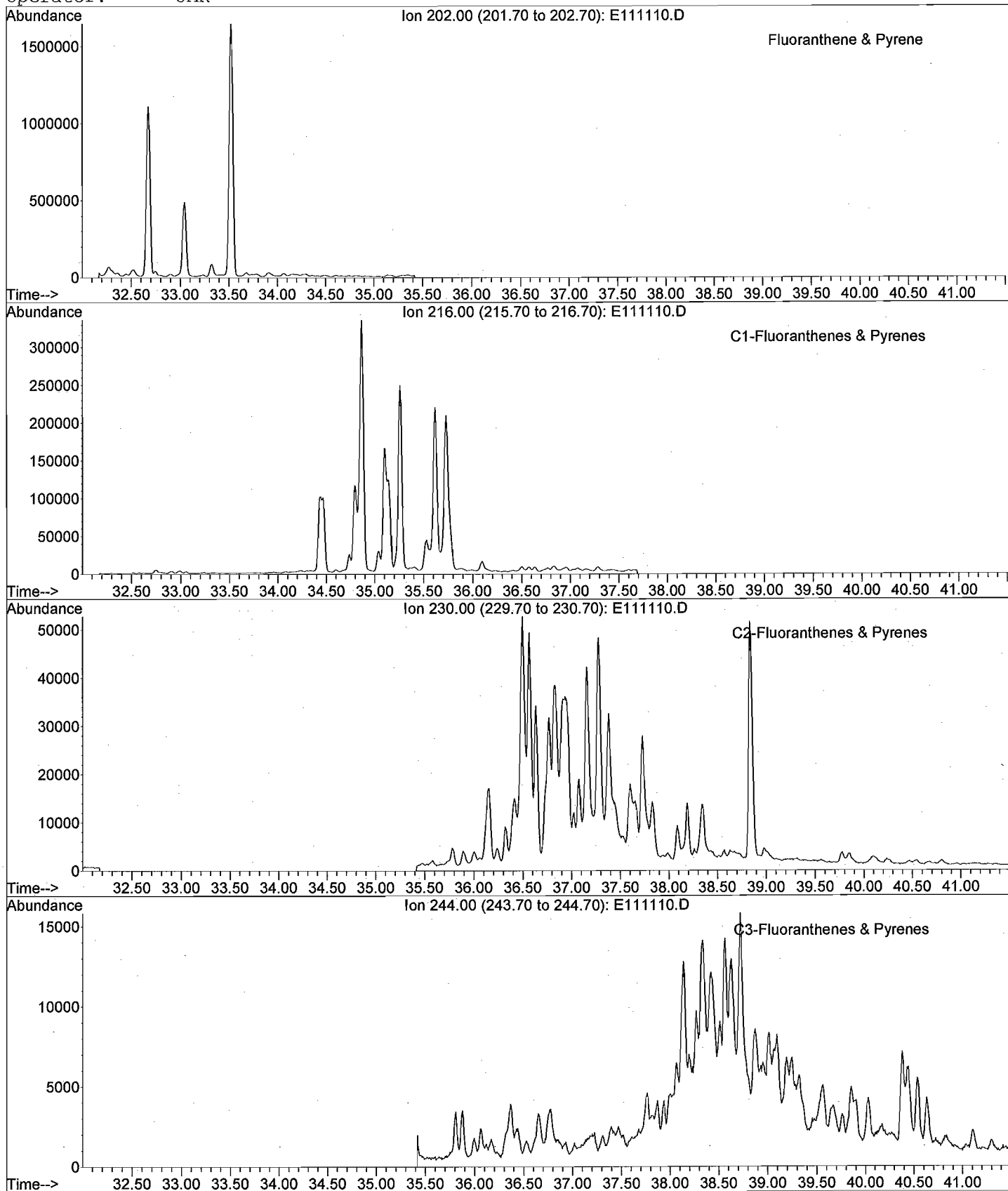
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



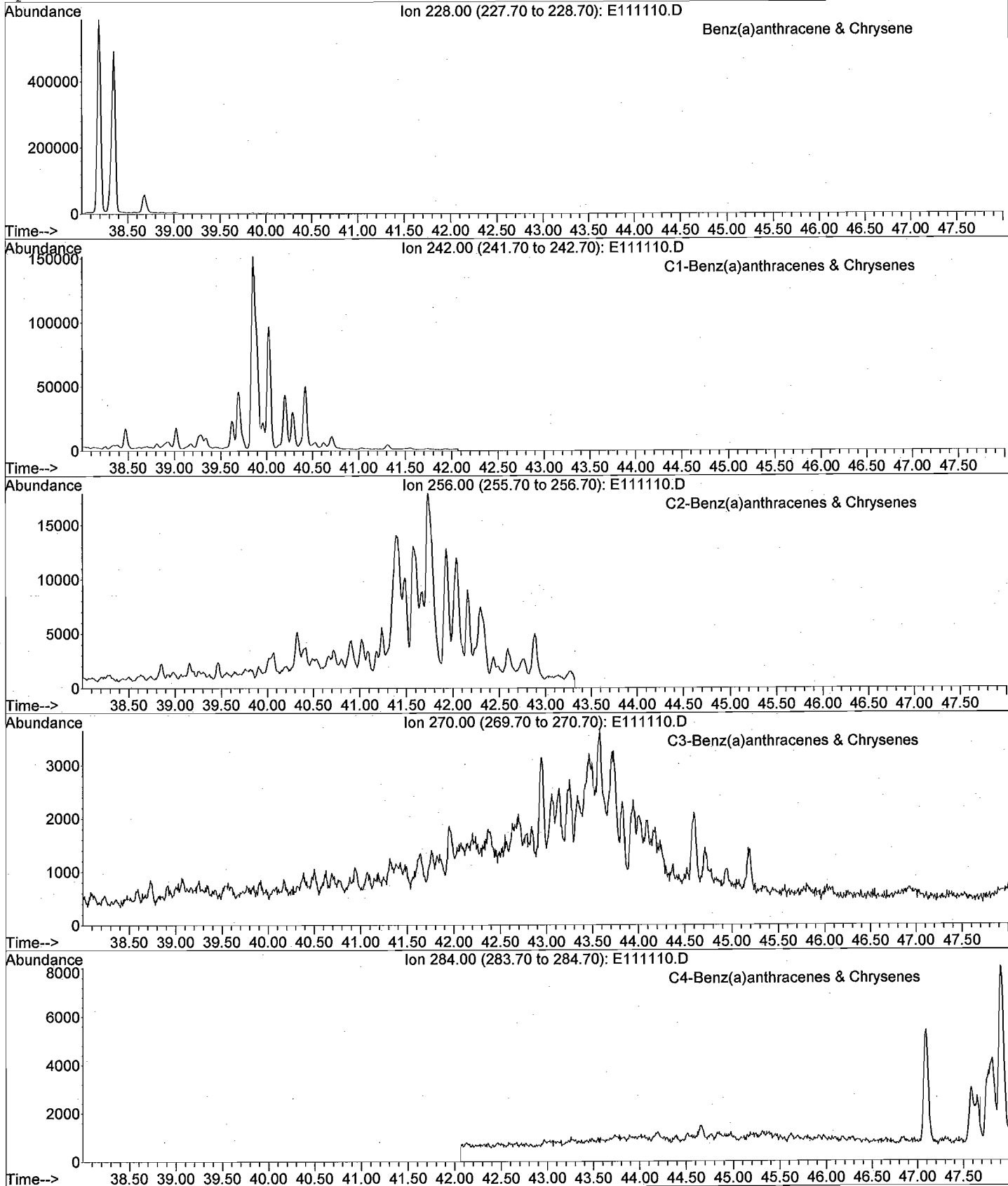
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



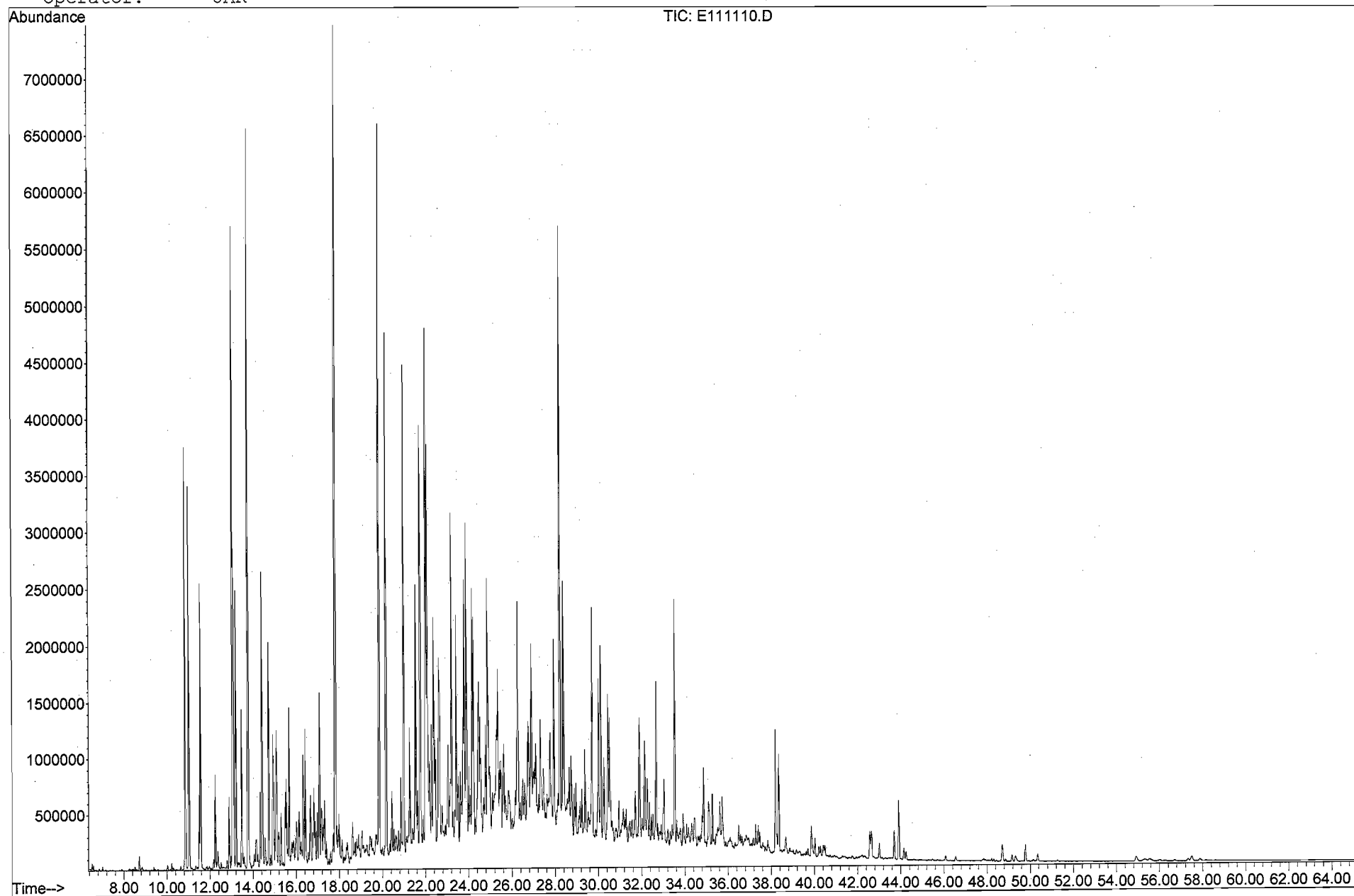
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



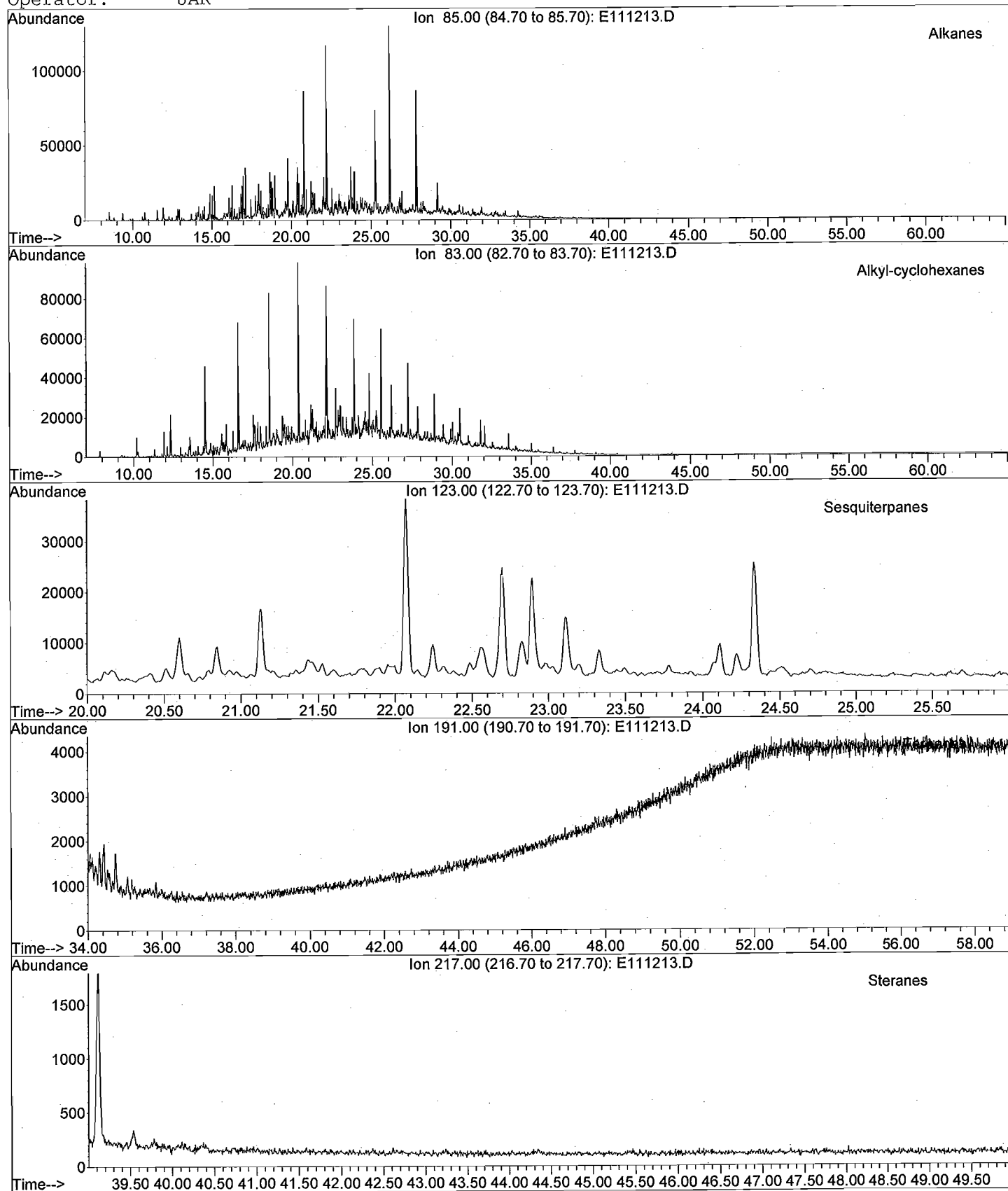
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



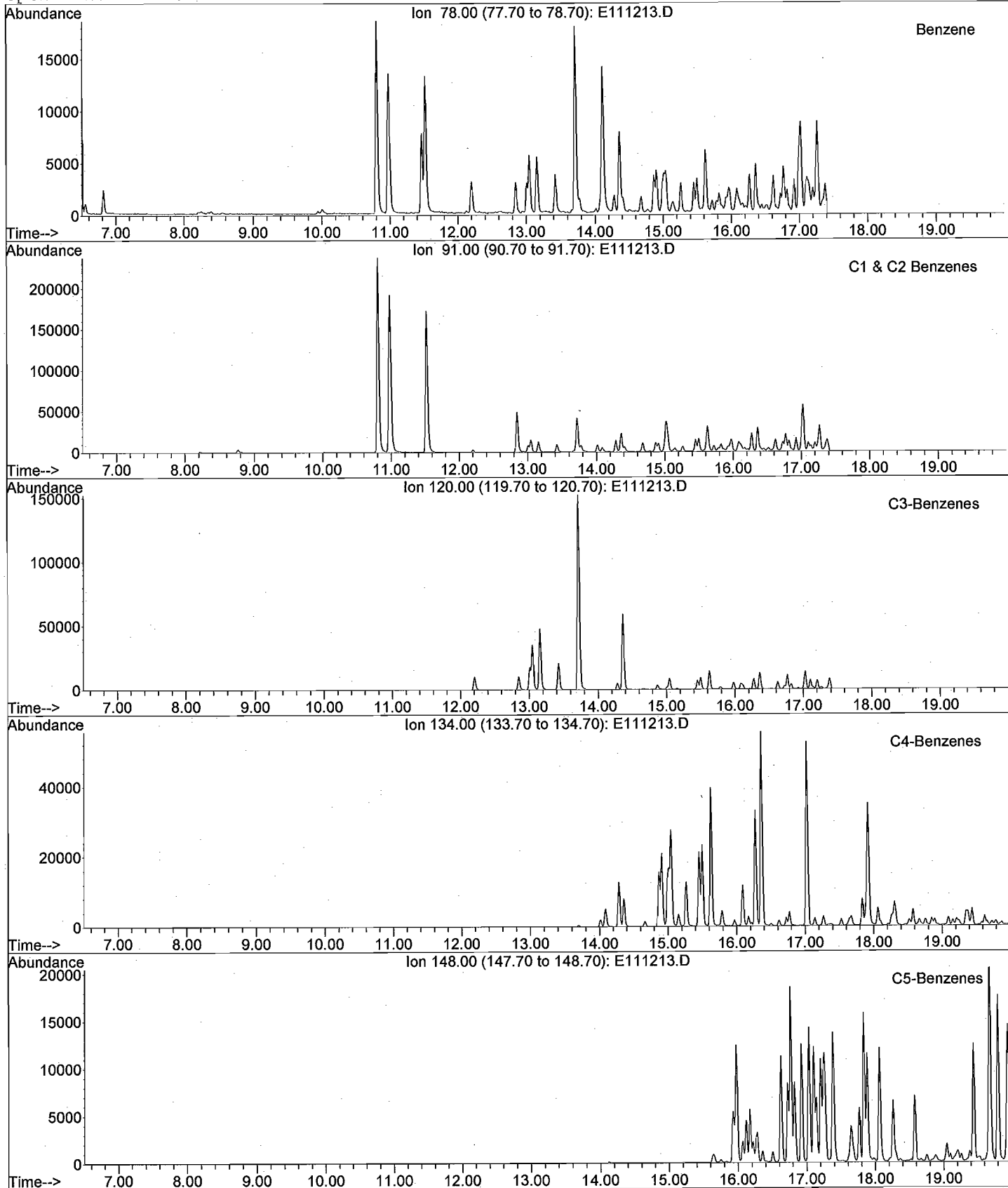
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



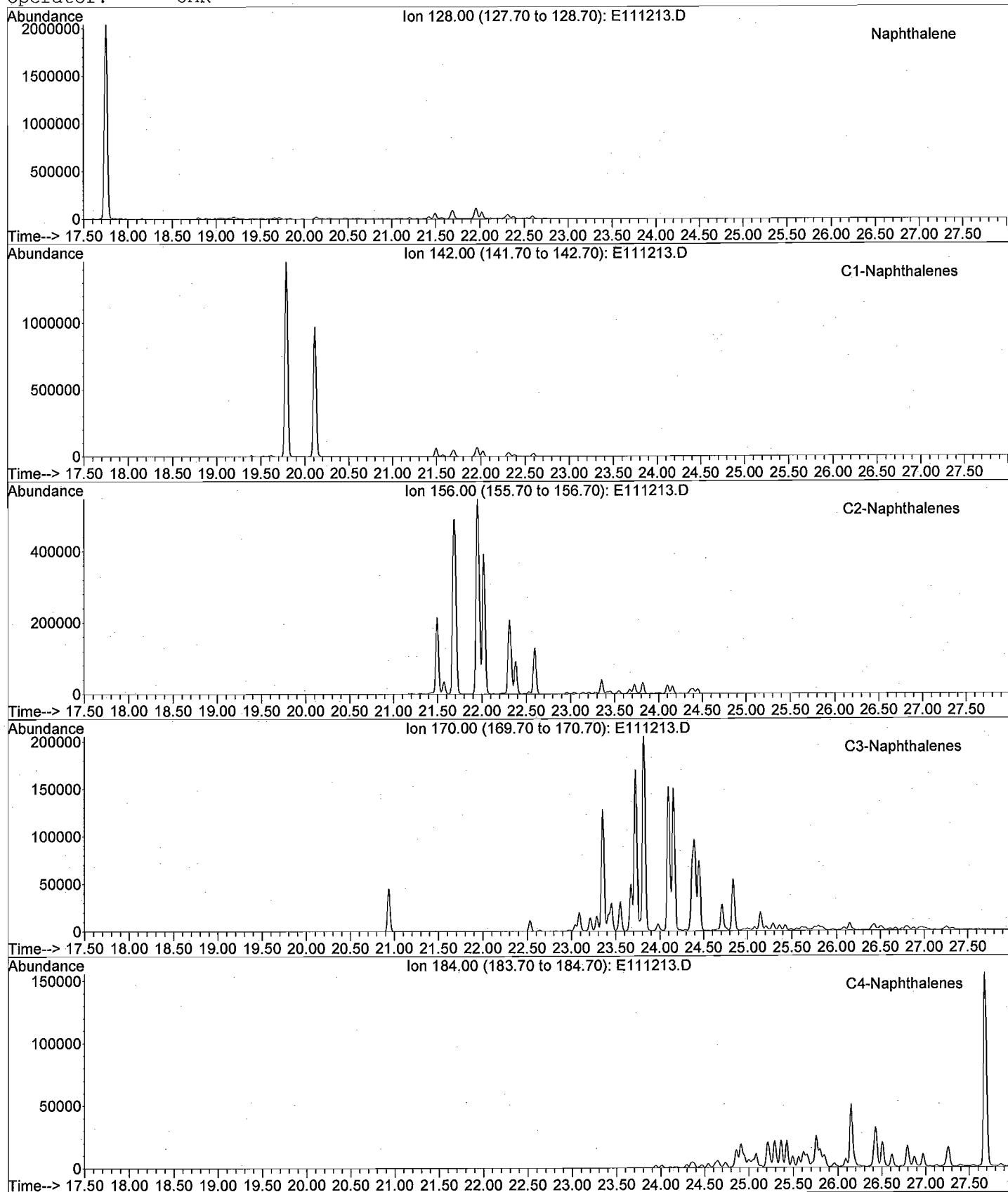
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



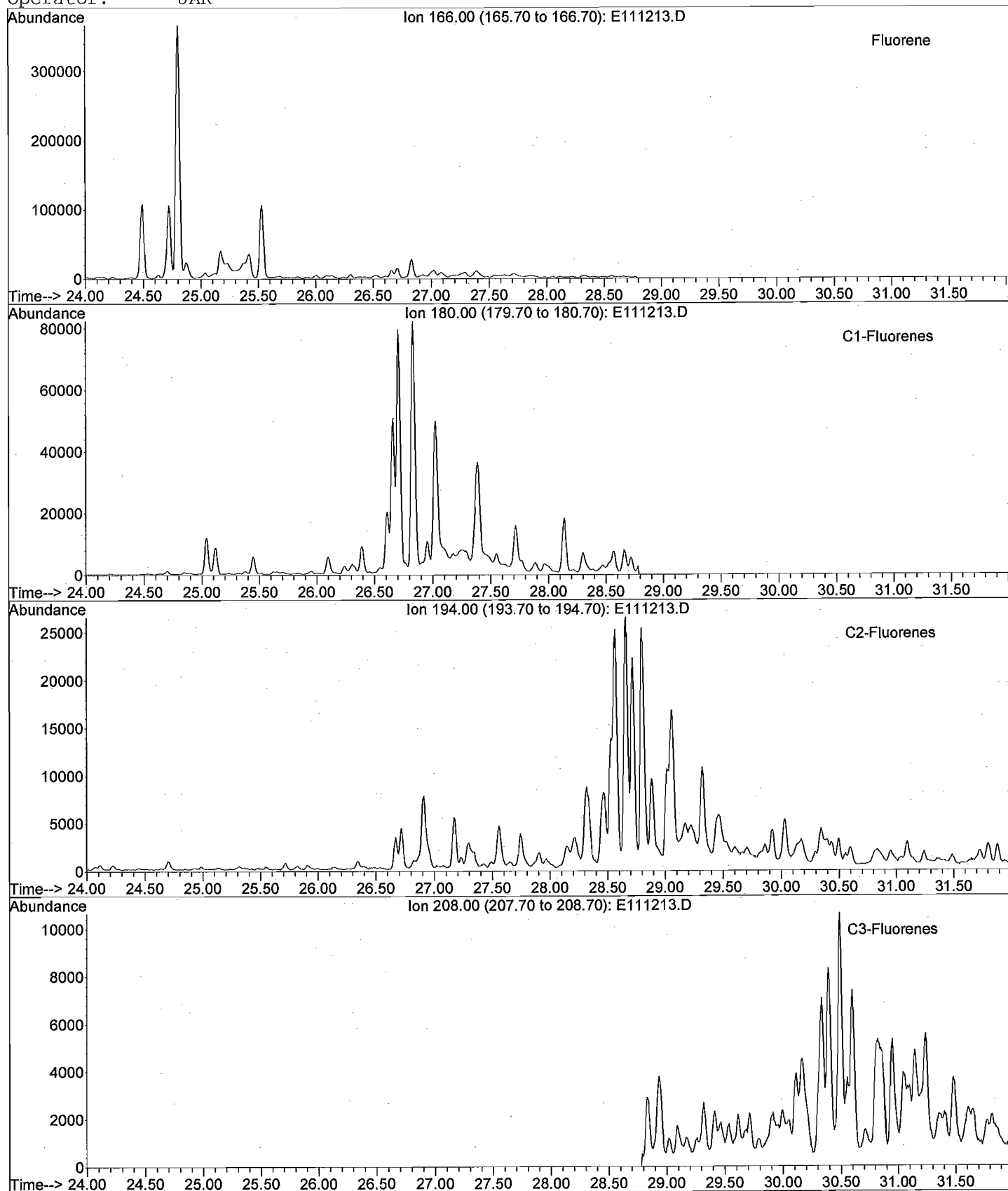
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



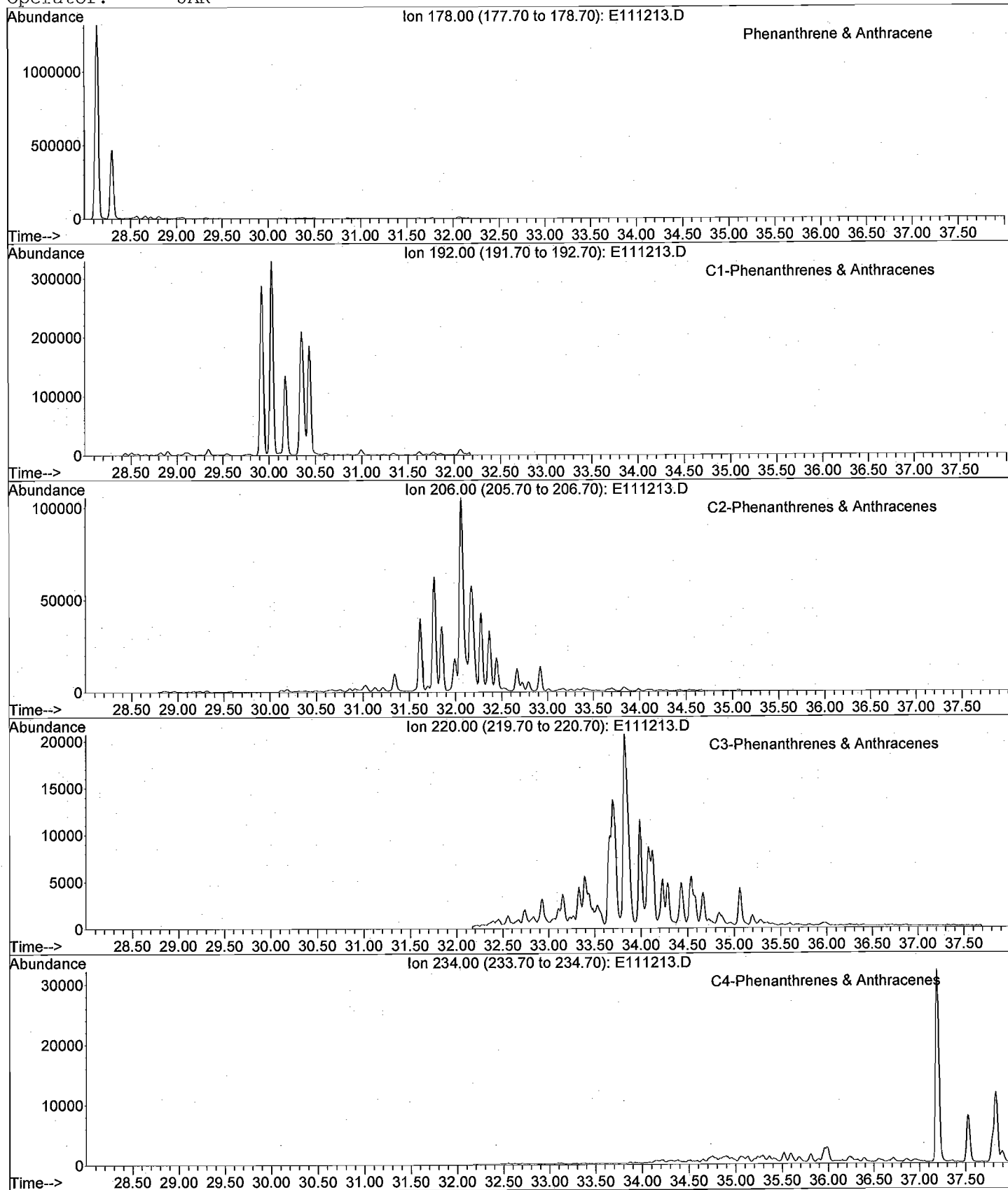
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



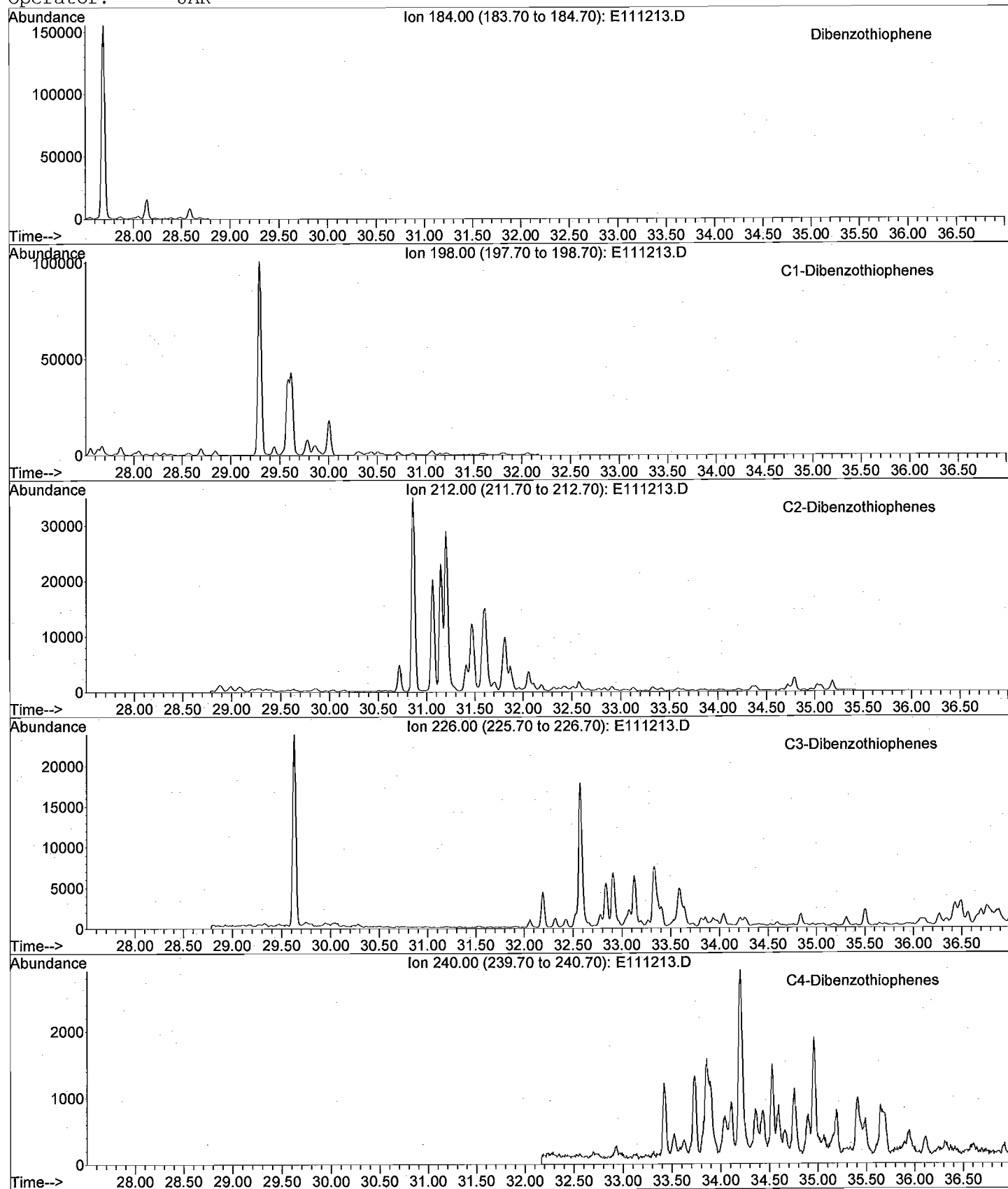
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



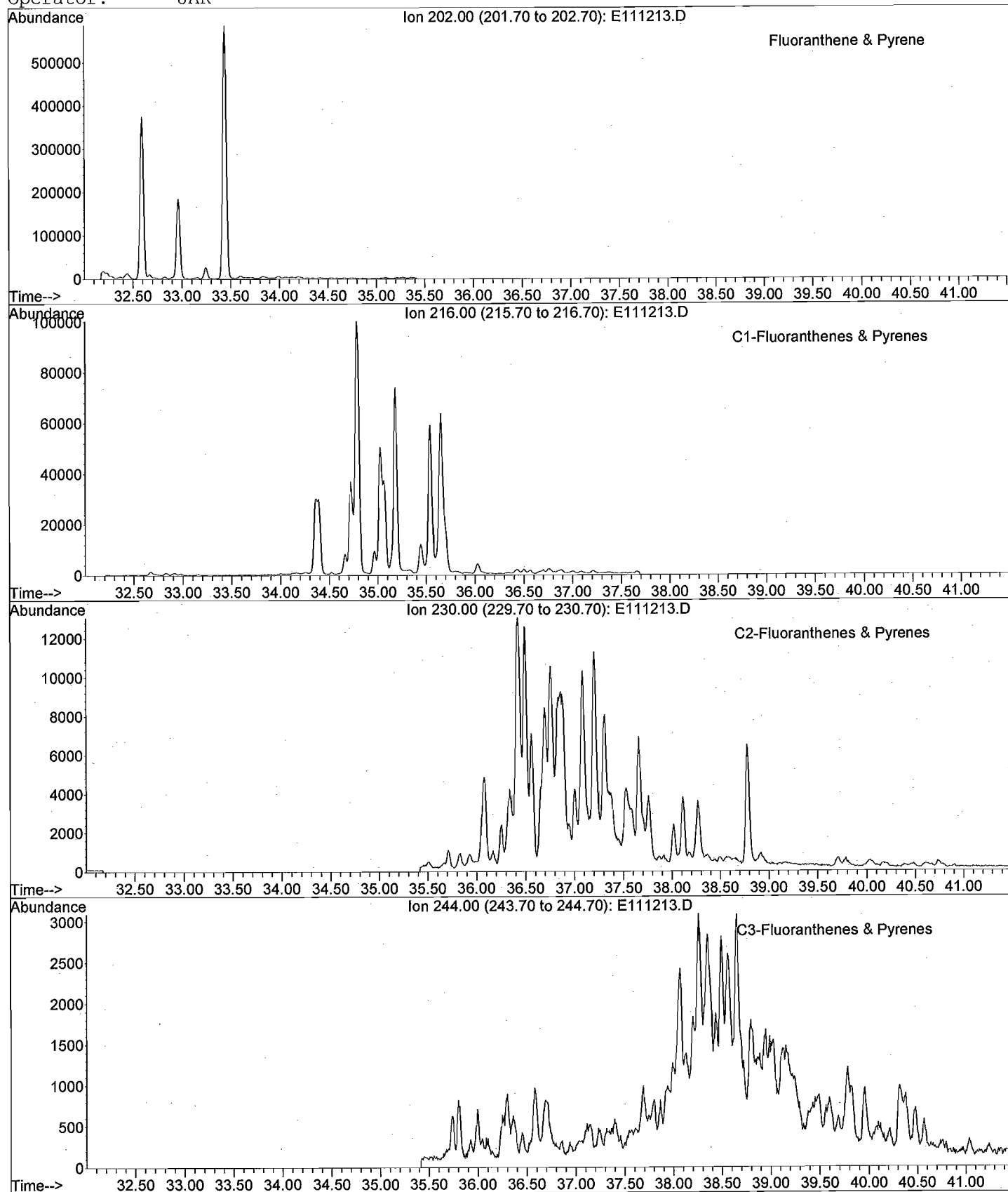
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



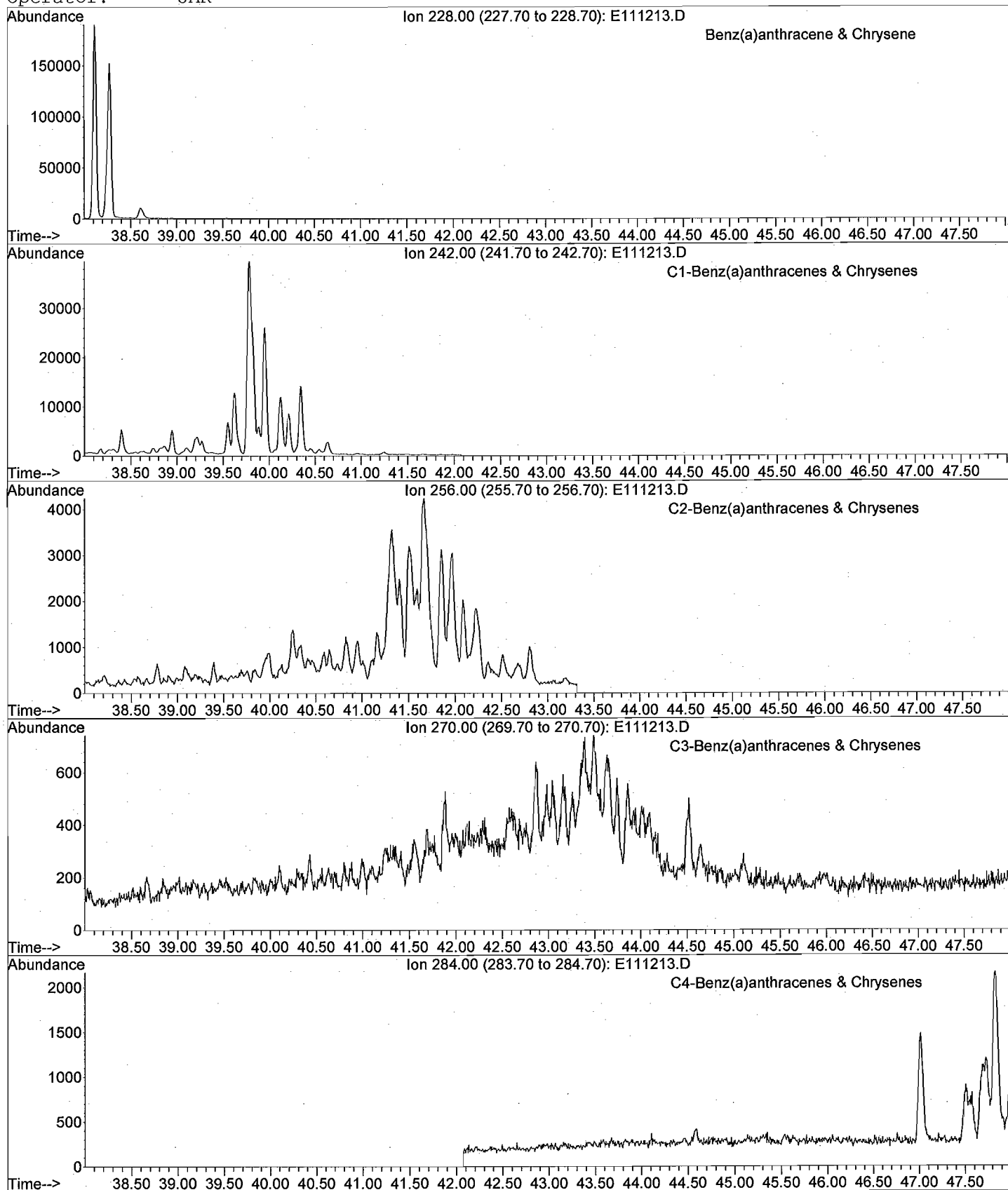
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File: J:\1\DATA\E081112\E111213.D
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Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



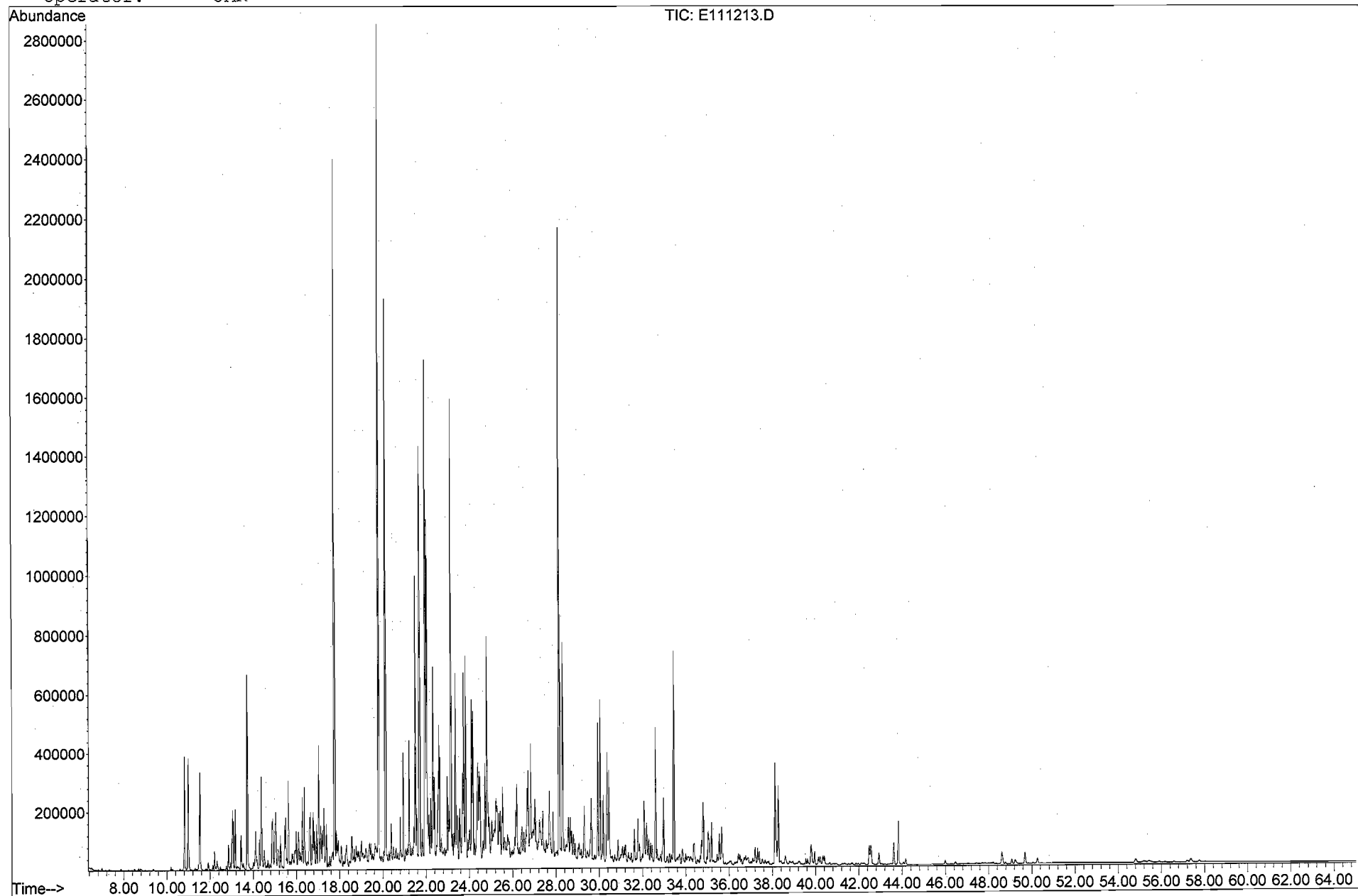
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



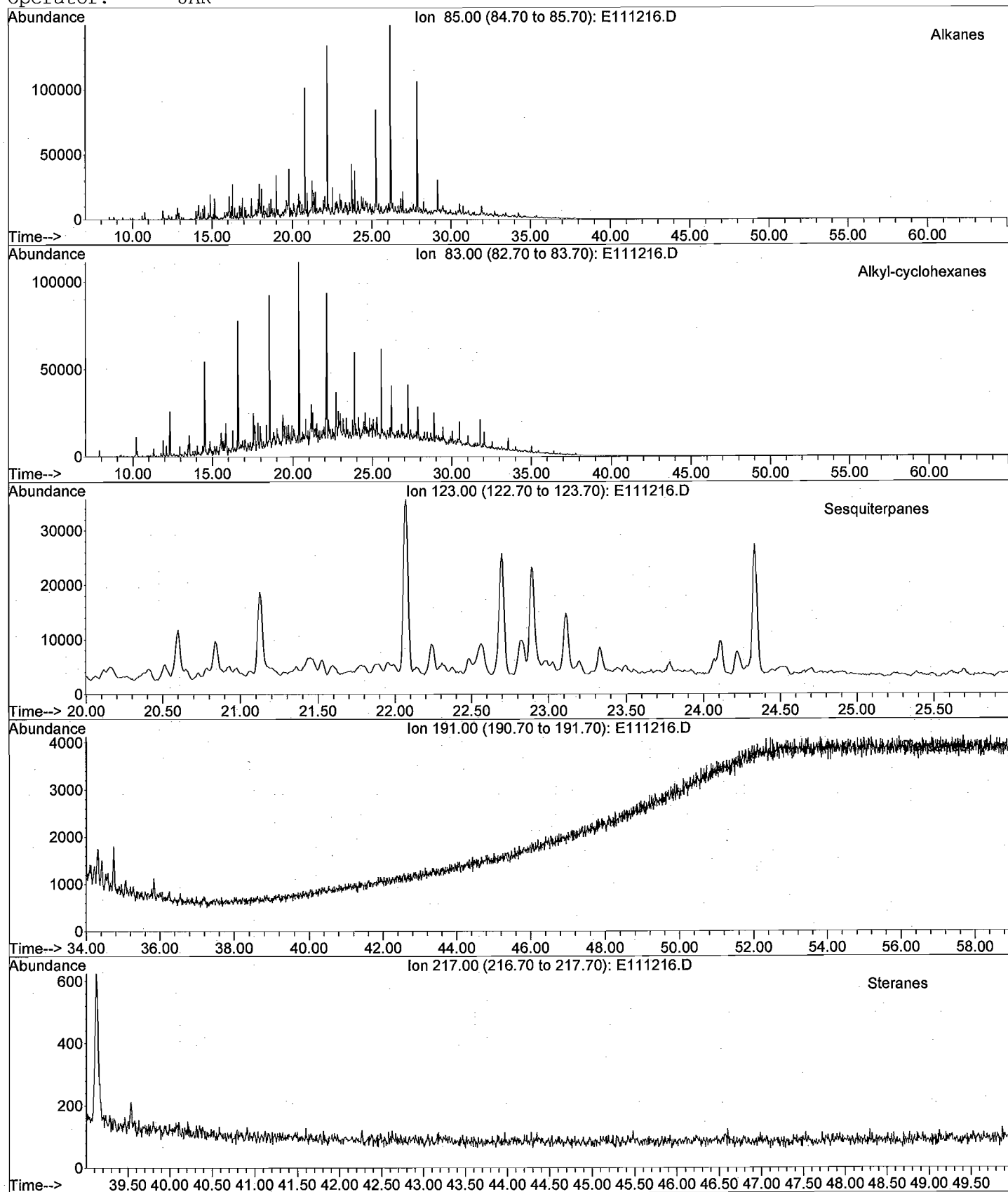
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
Date Acquired: 13 Nov 2008 6:12 am
Method File: 4008SIMD.M
Sample Name: HC081104-06-D
Misc Info: HISB - 111/30-35 - 10X
Operator: JAR



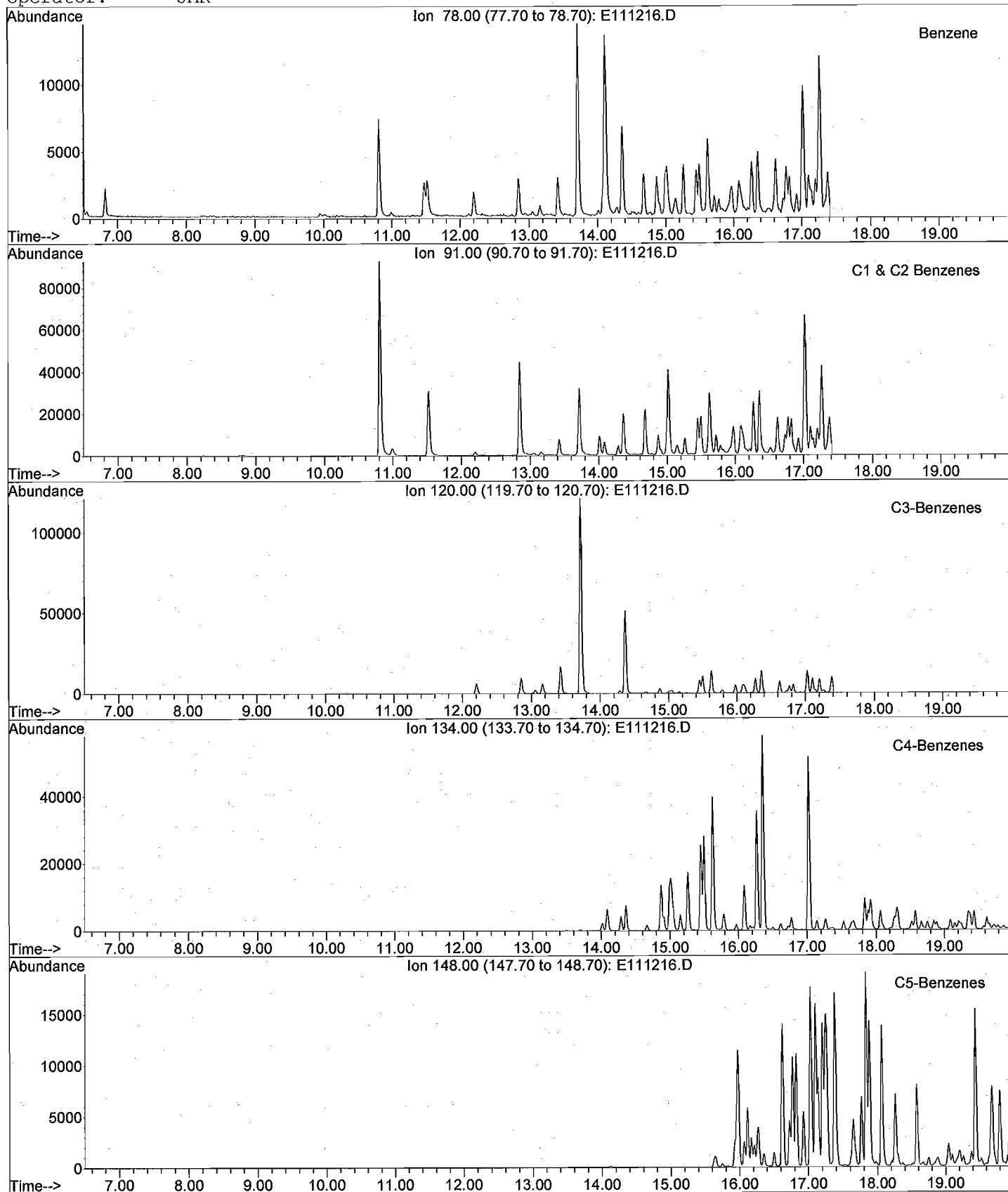
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



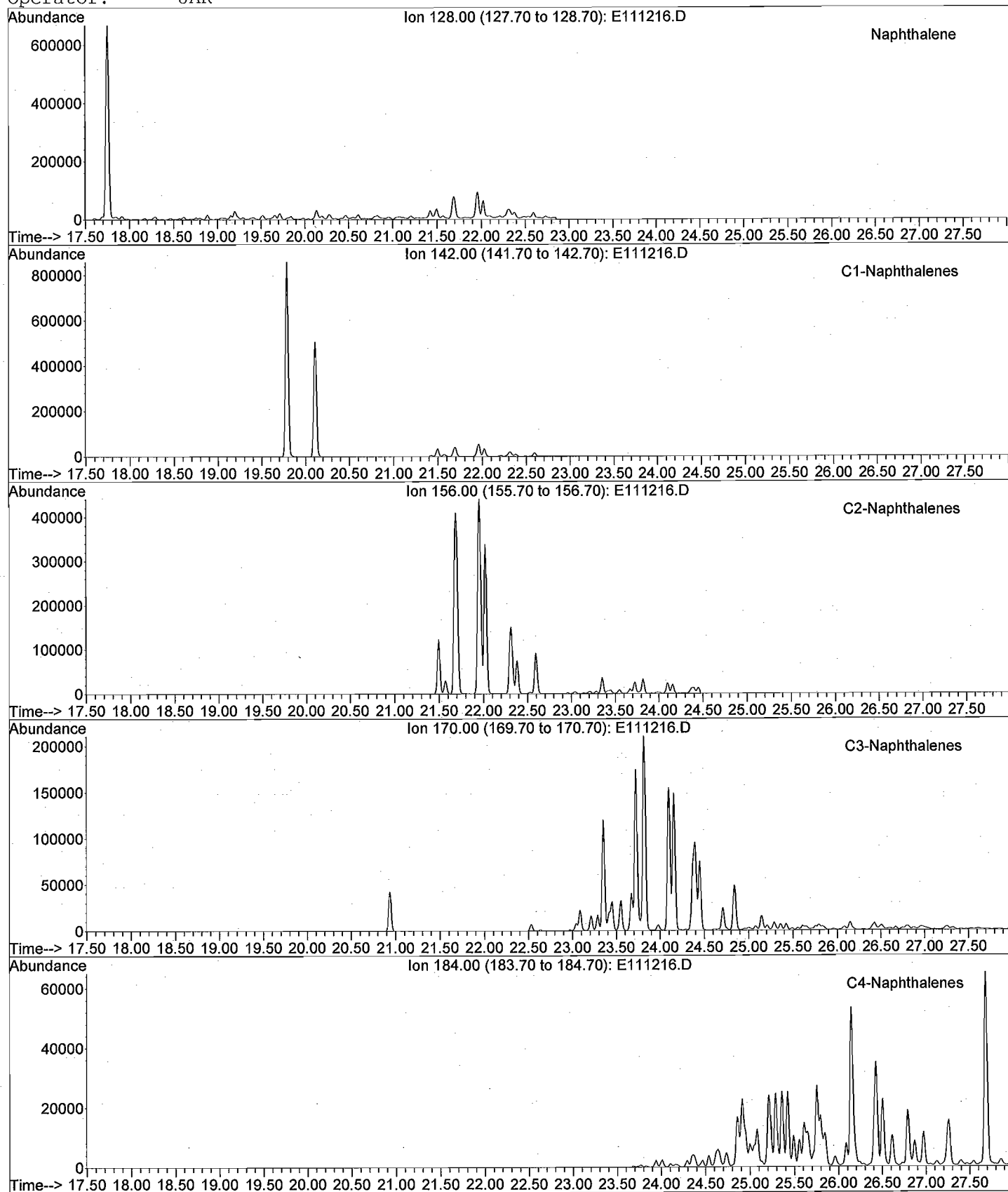
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File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



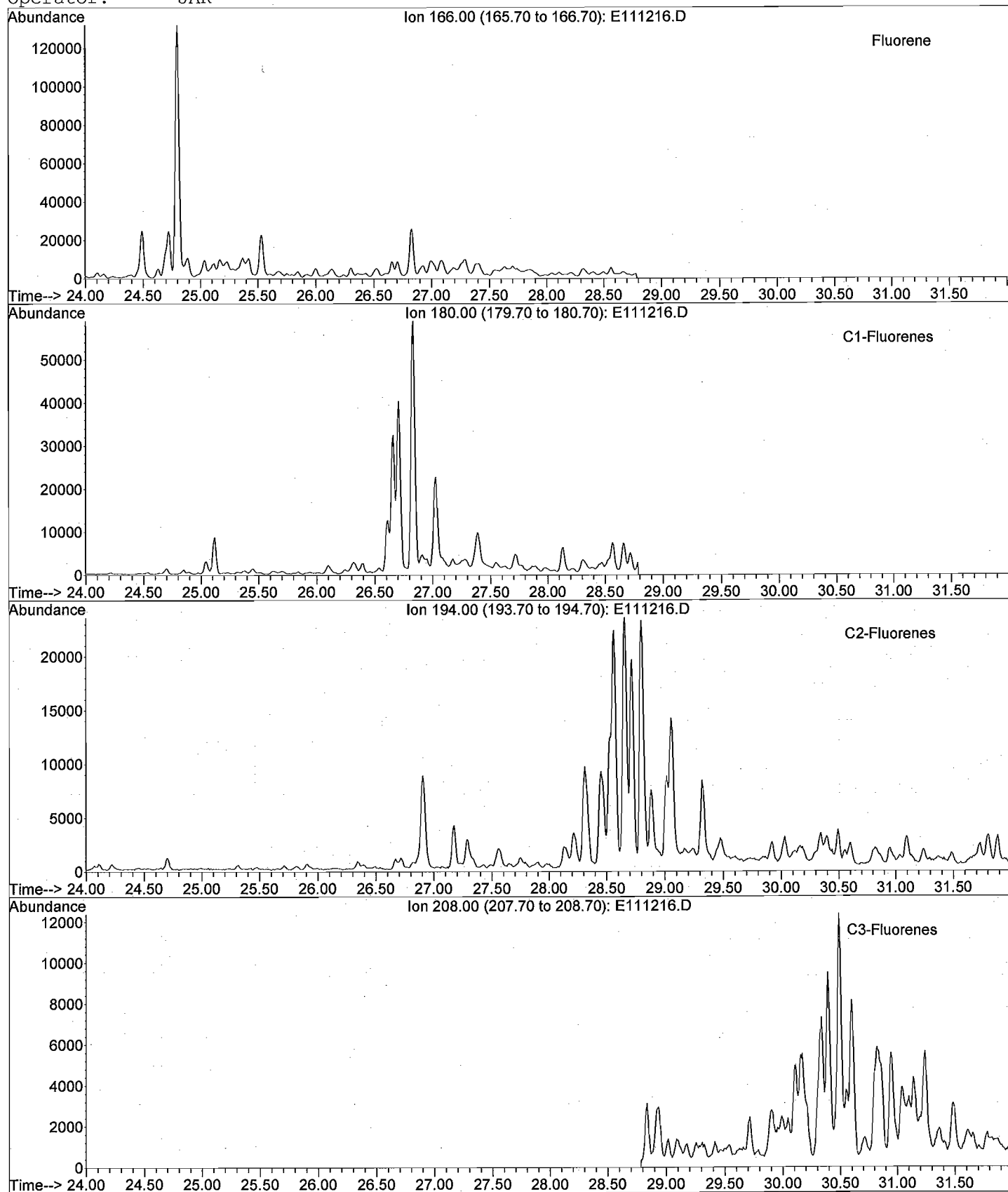
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



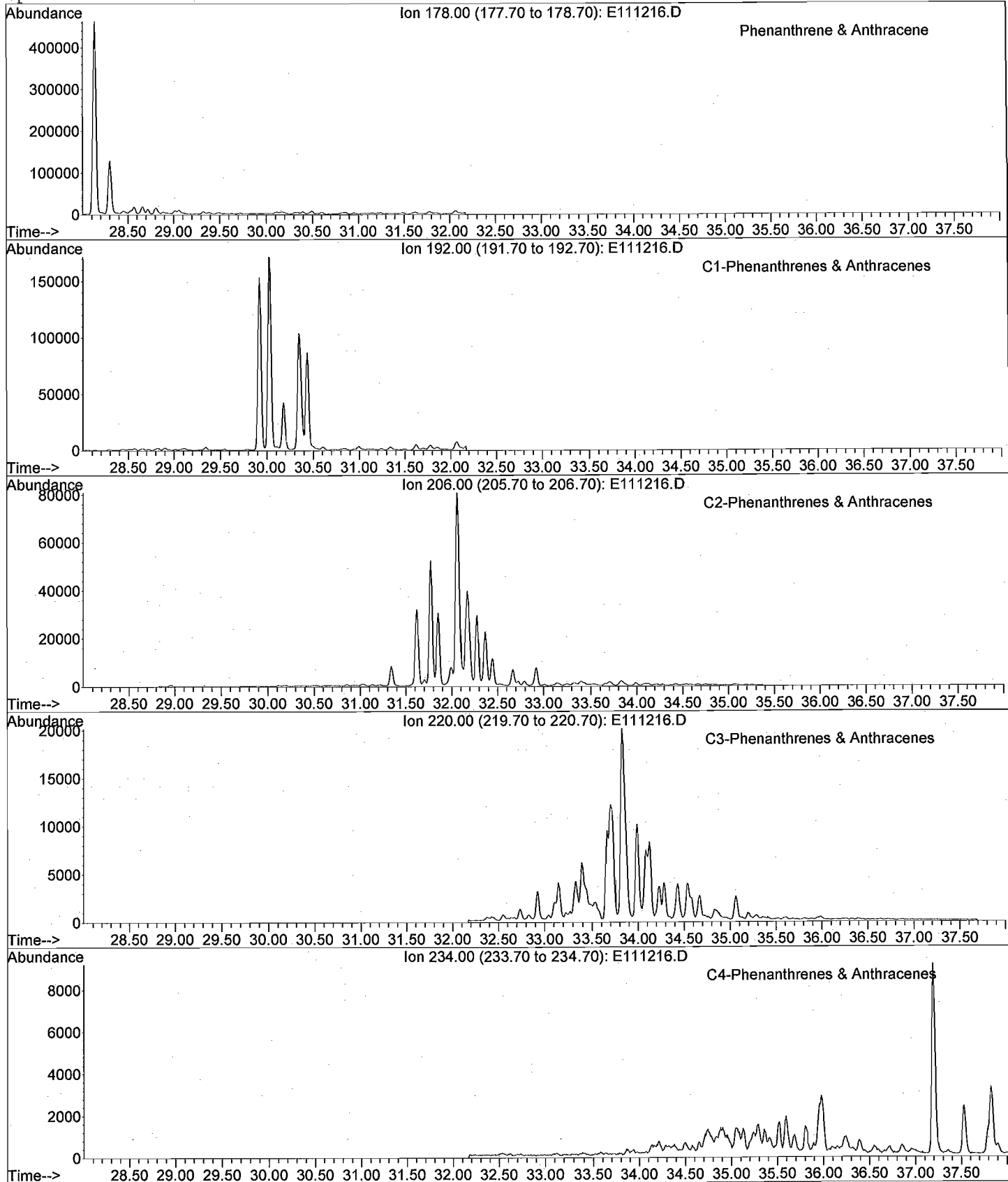
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
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Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



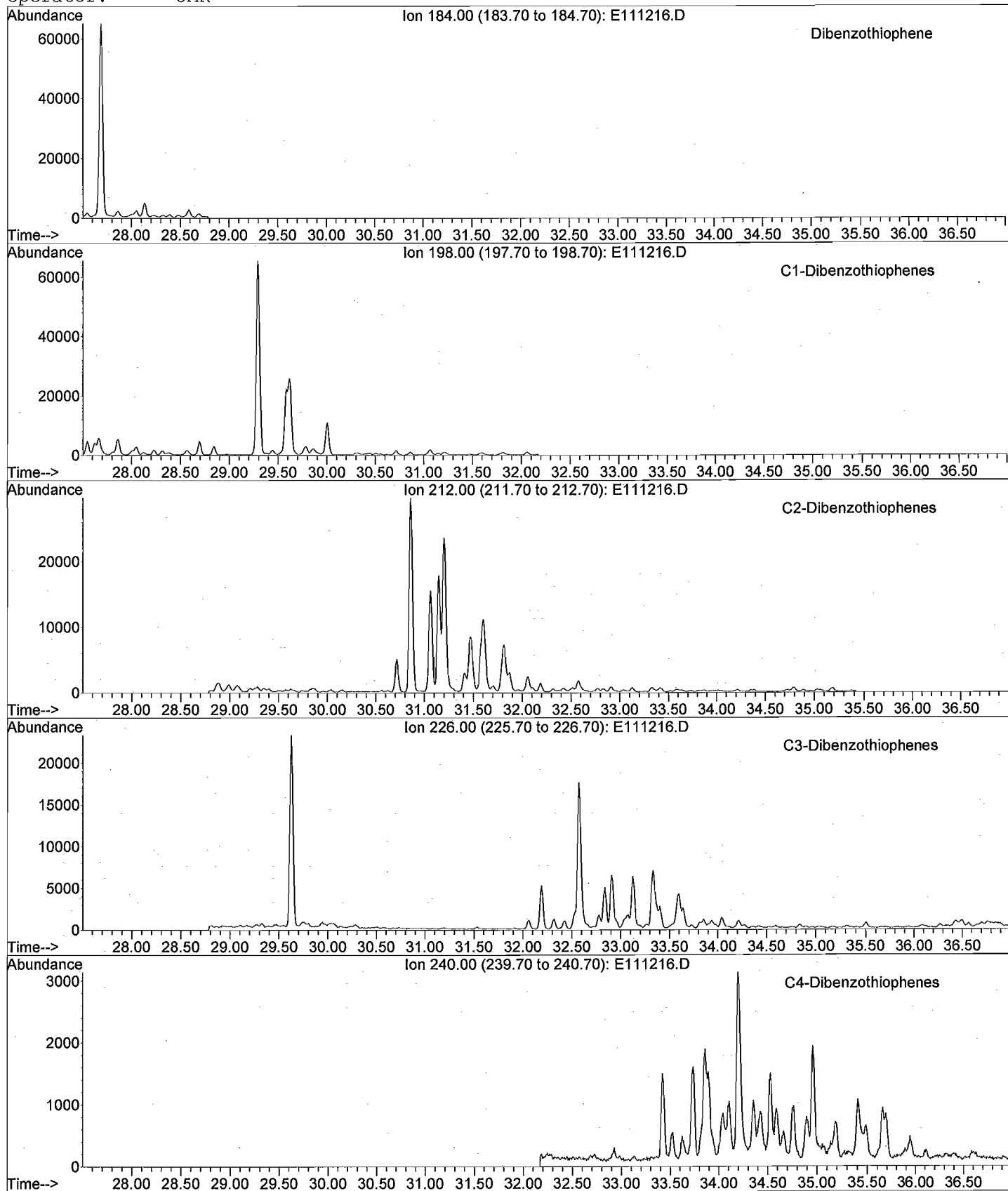
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



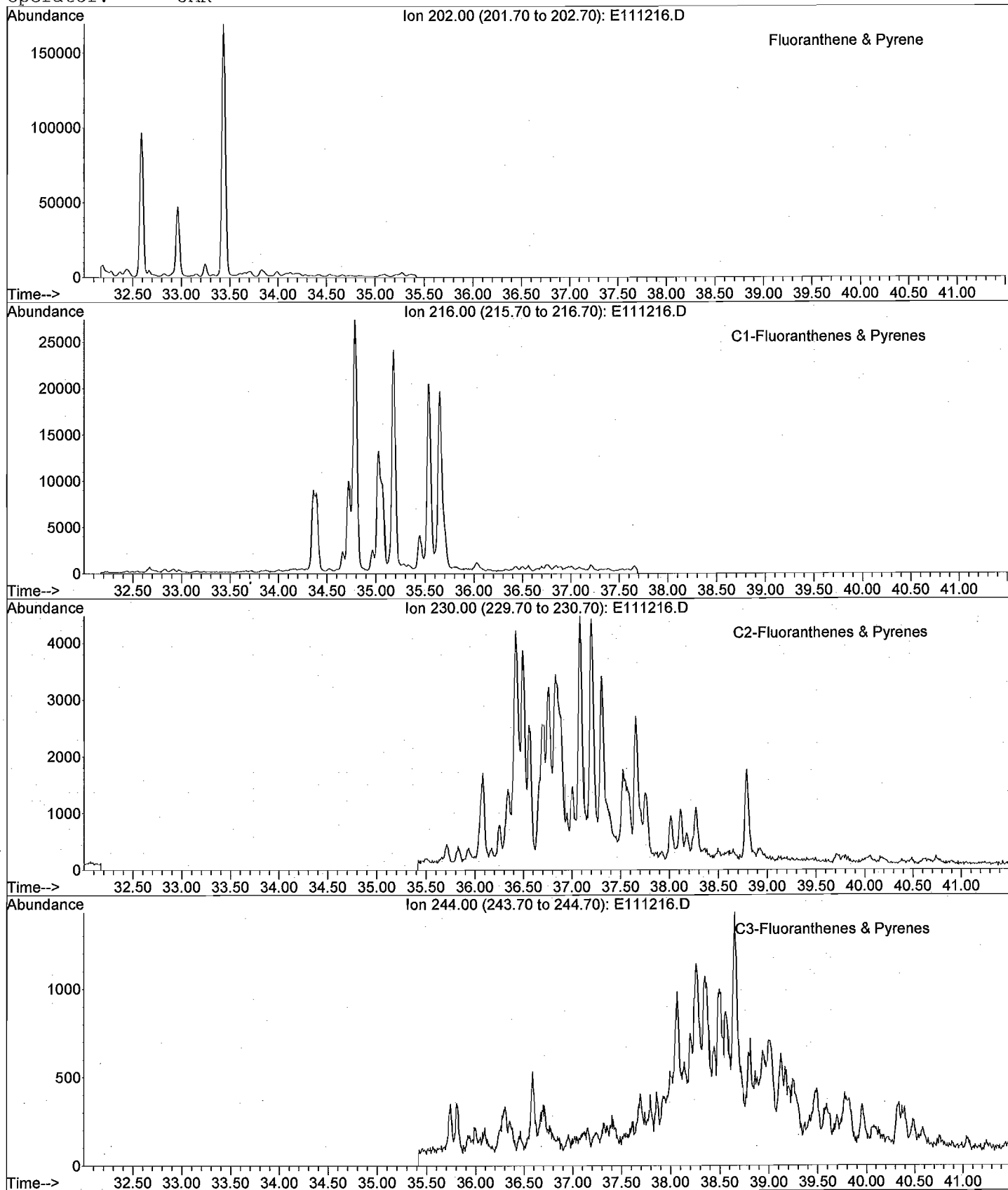
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



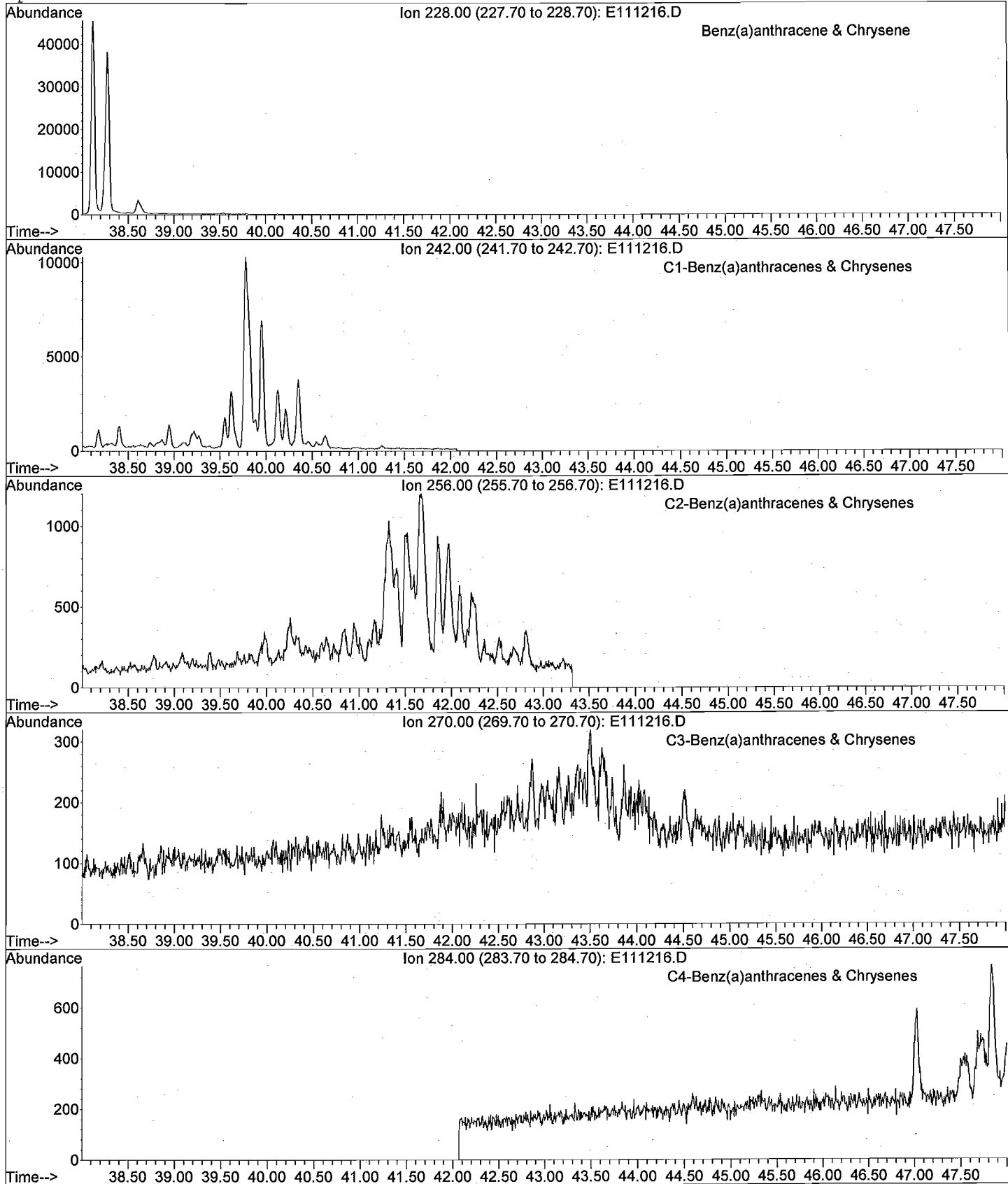
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



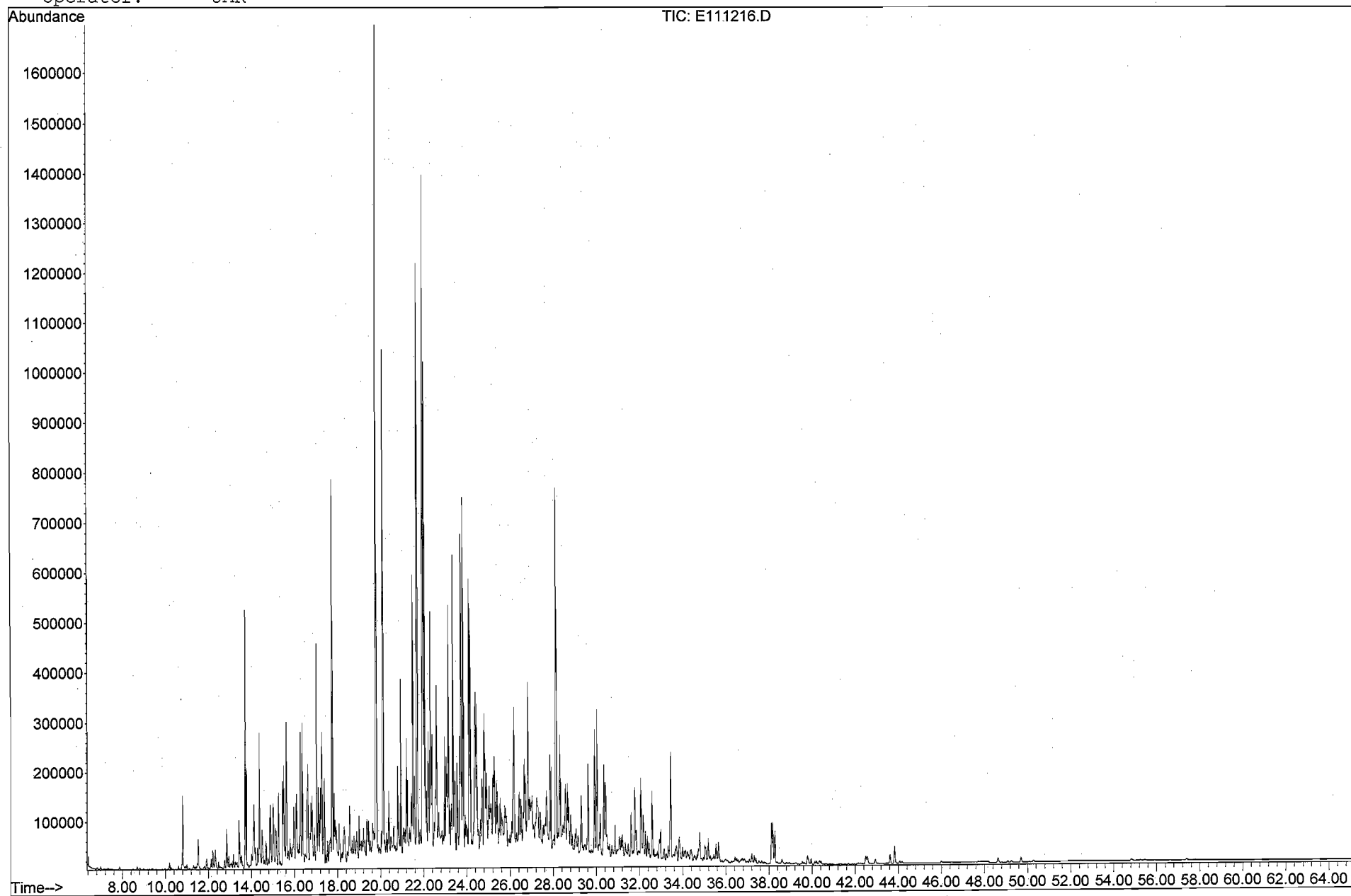
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



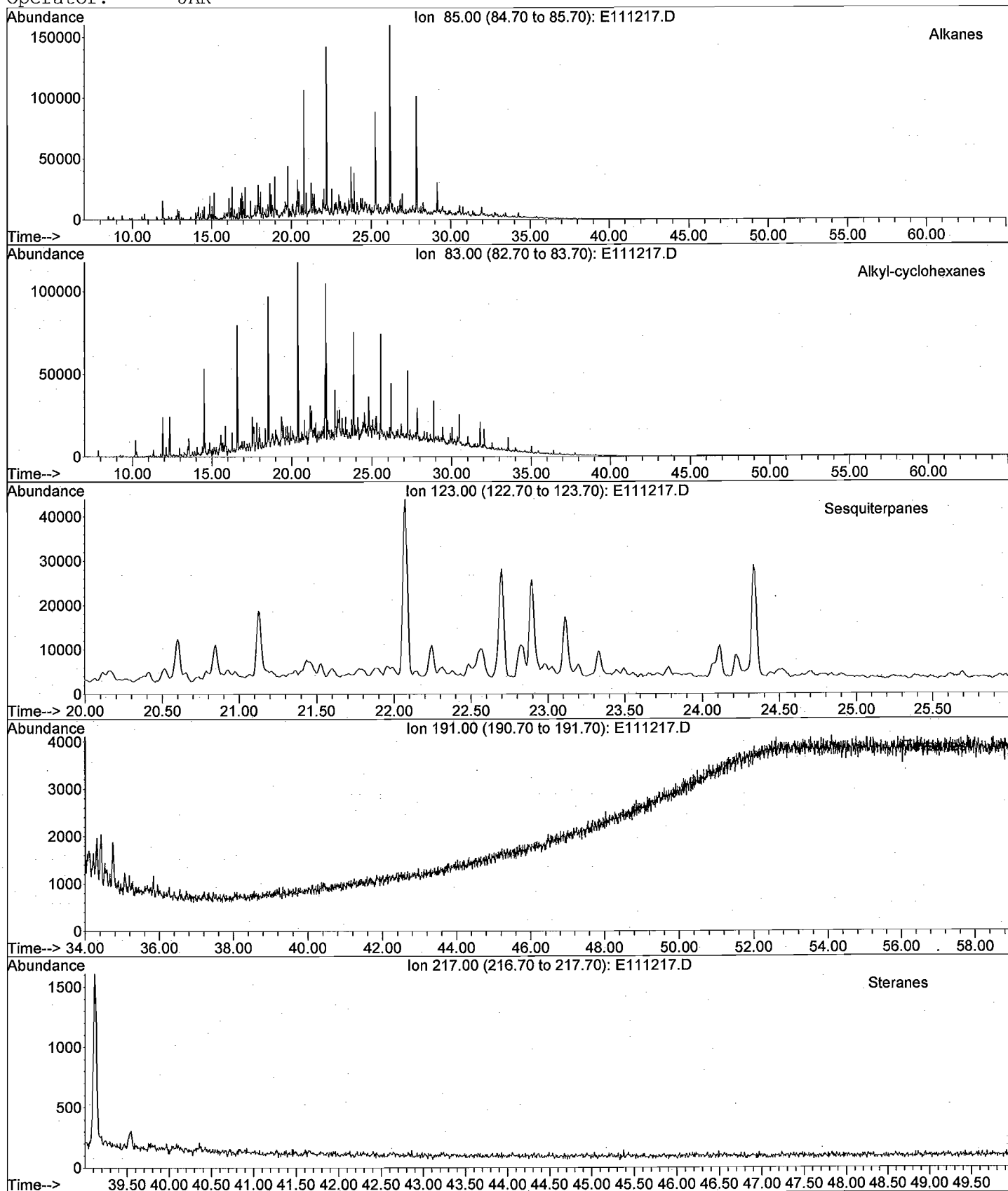
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



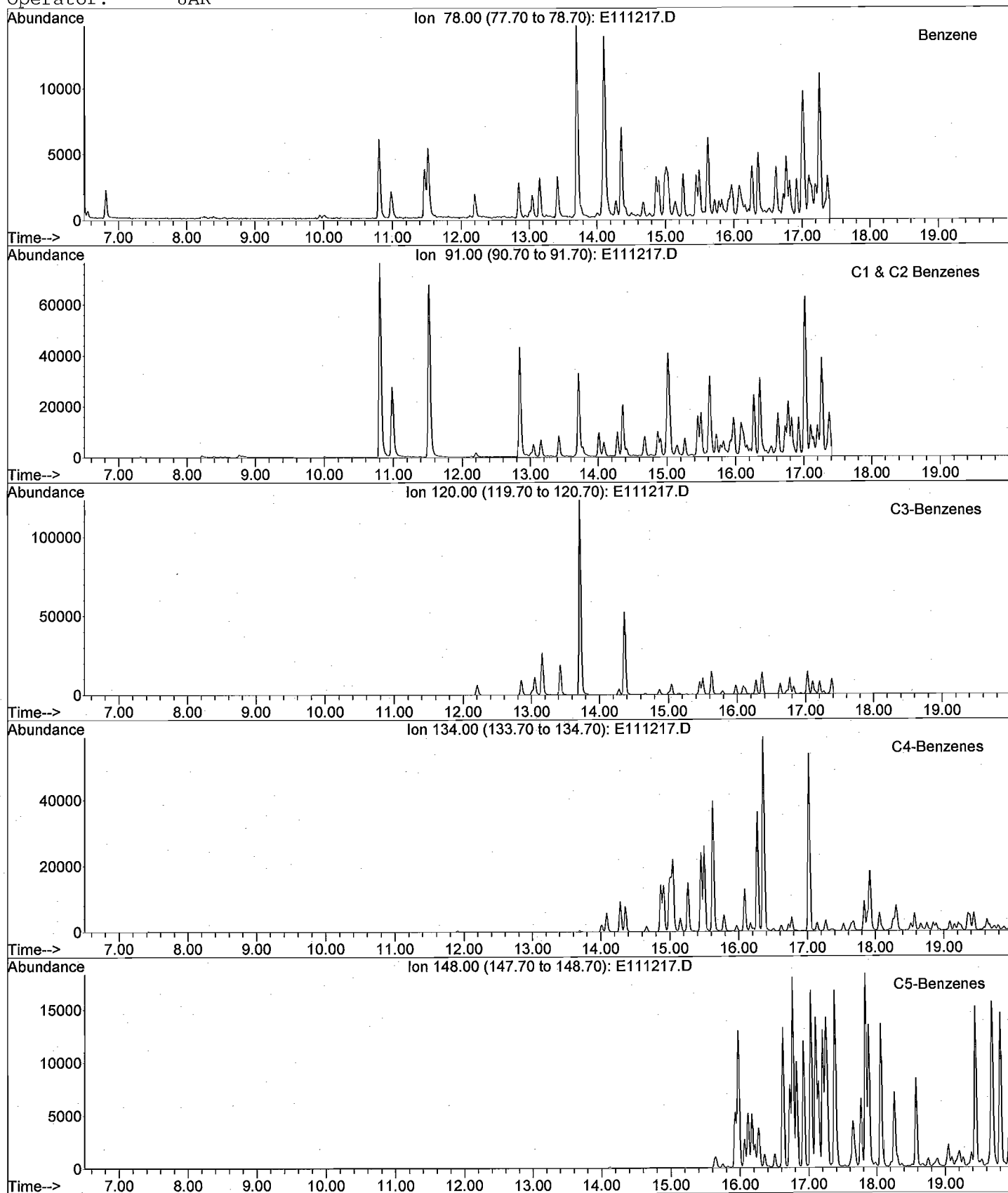
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



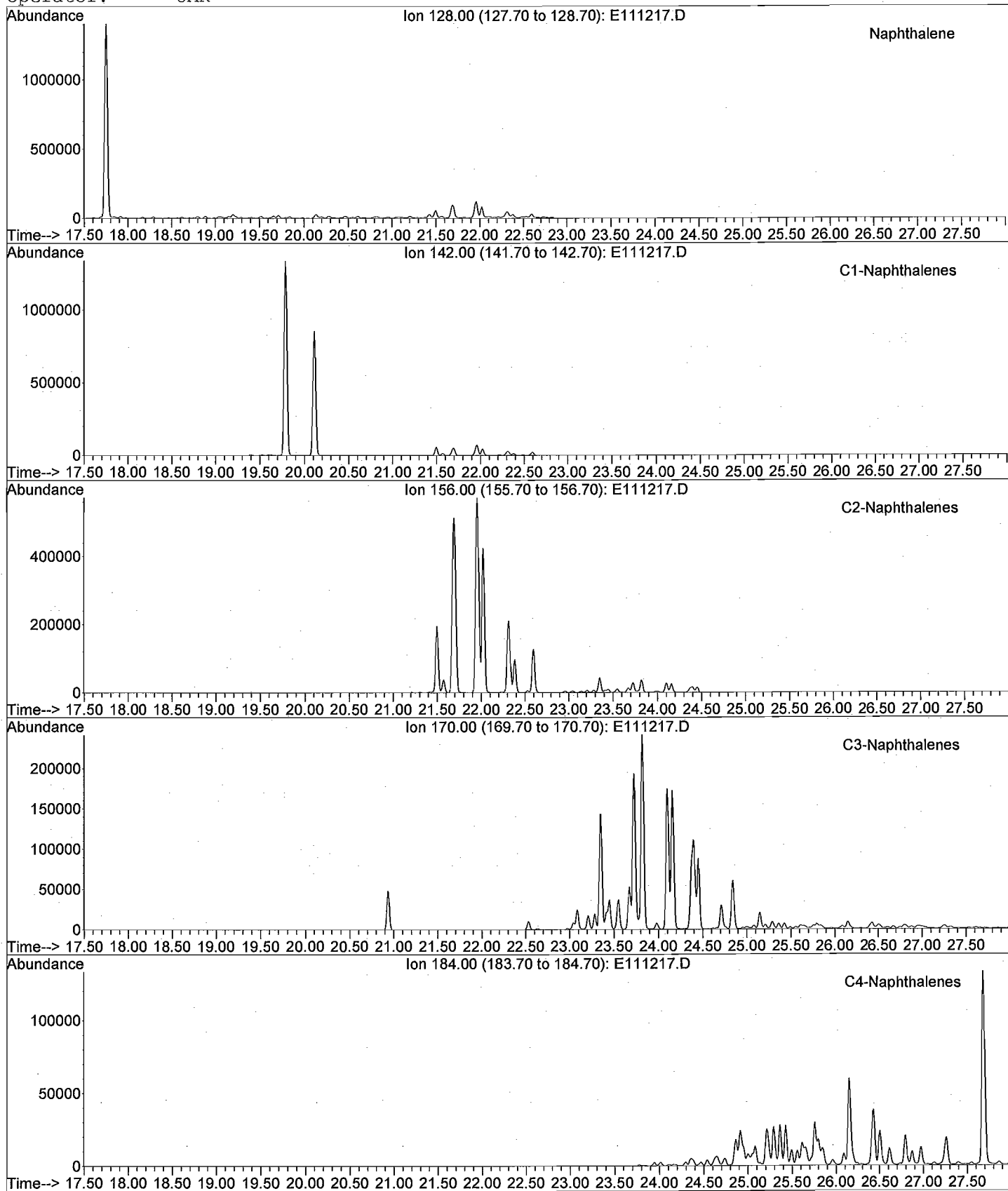
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



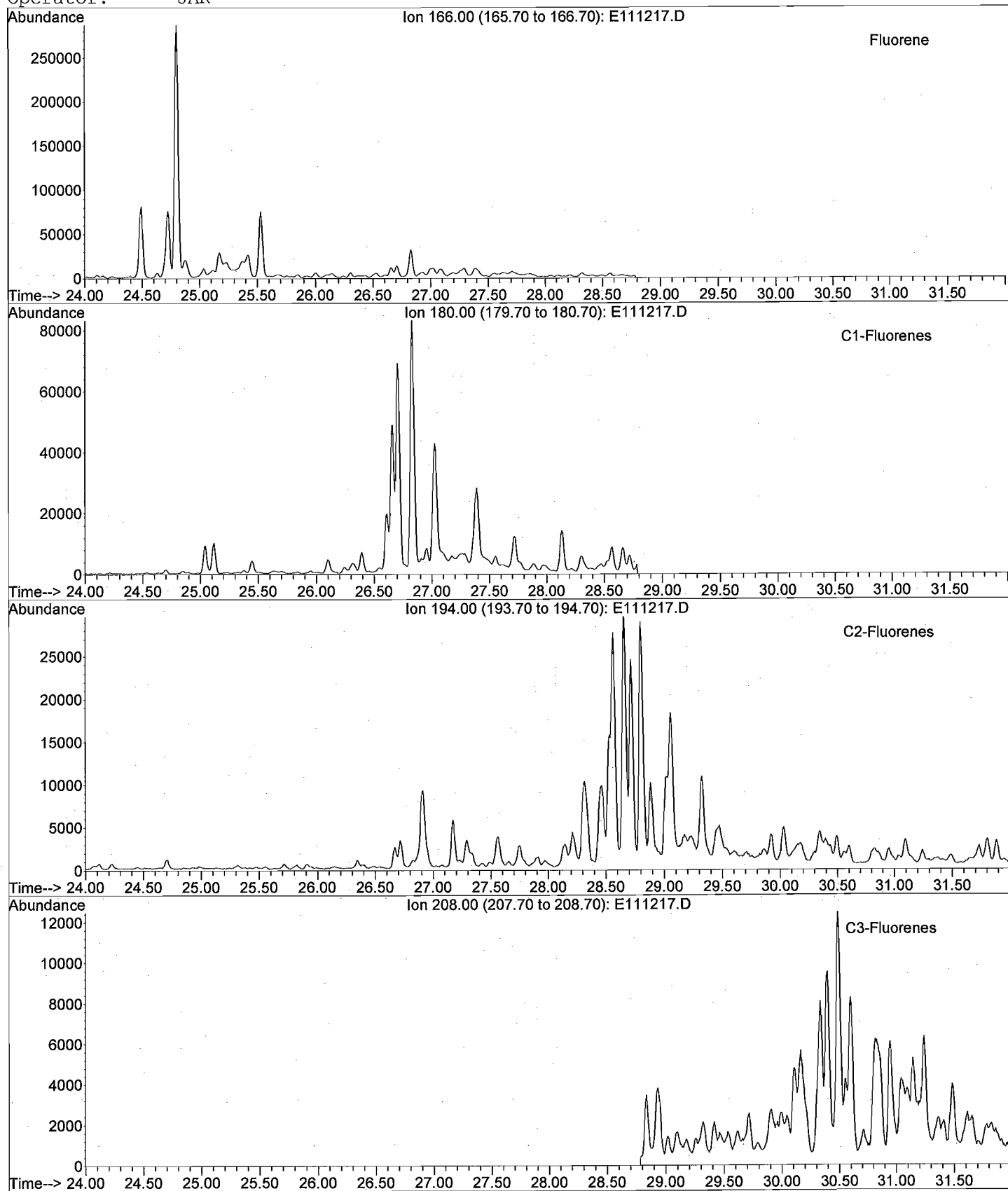
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



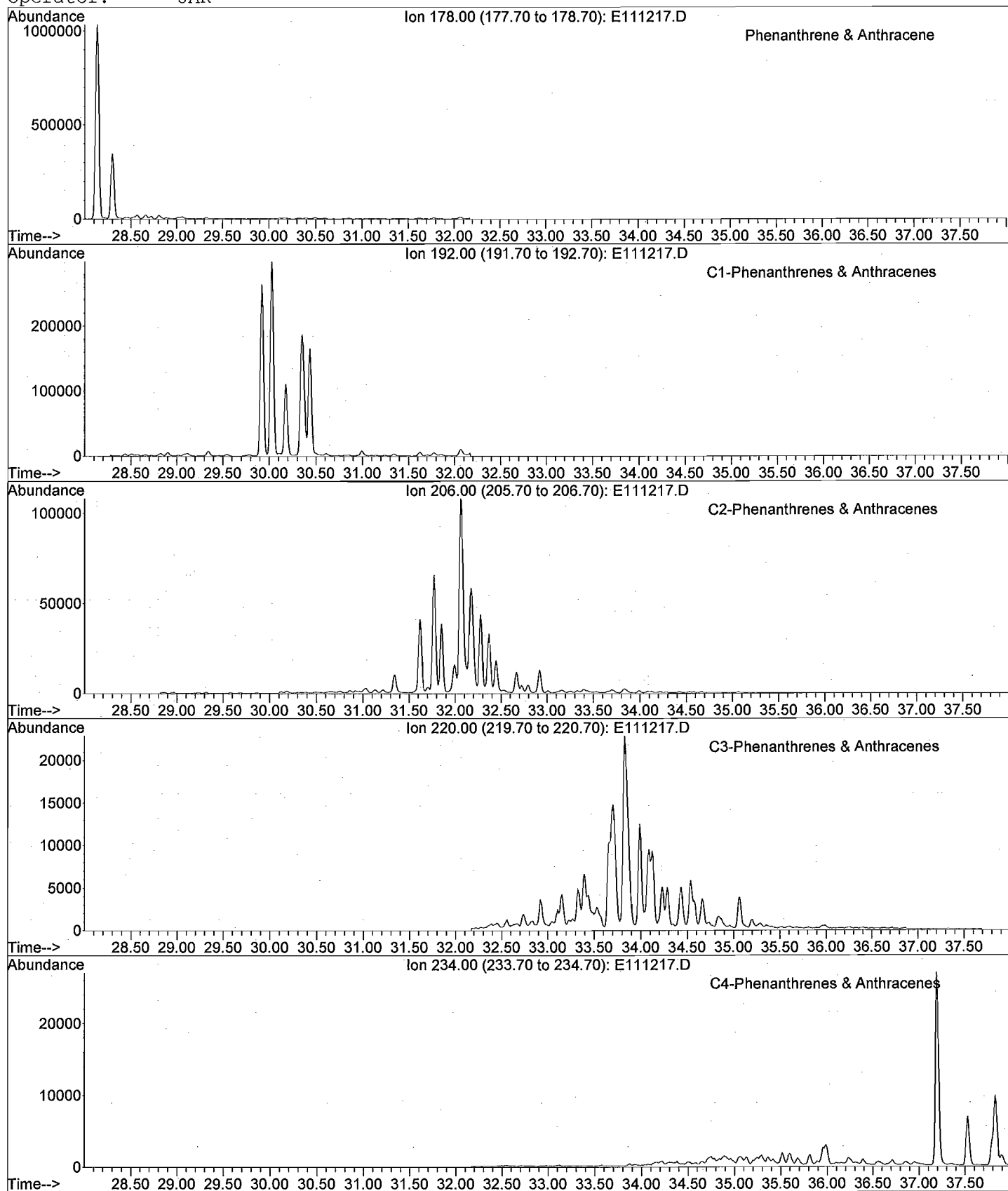
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



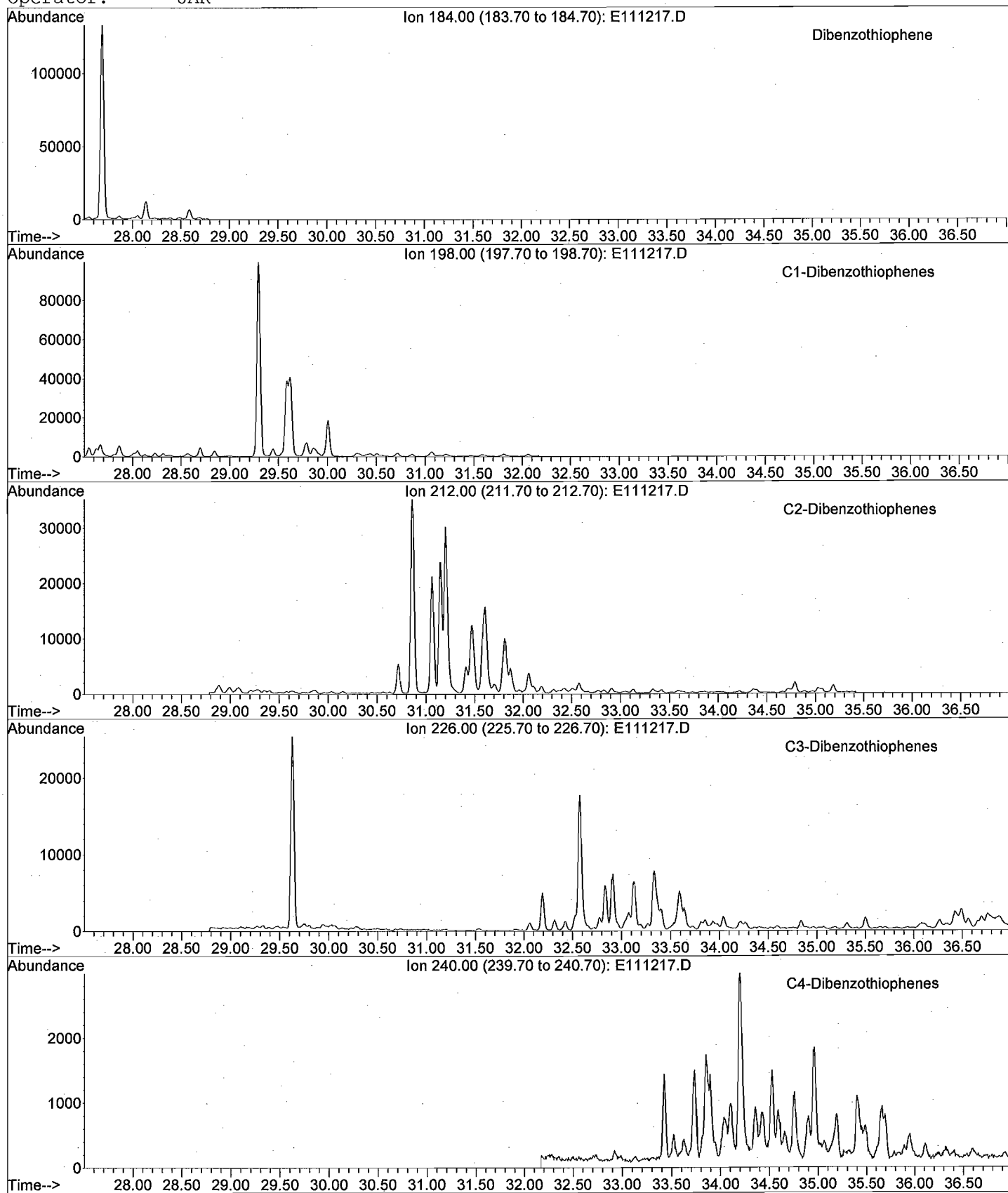
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



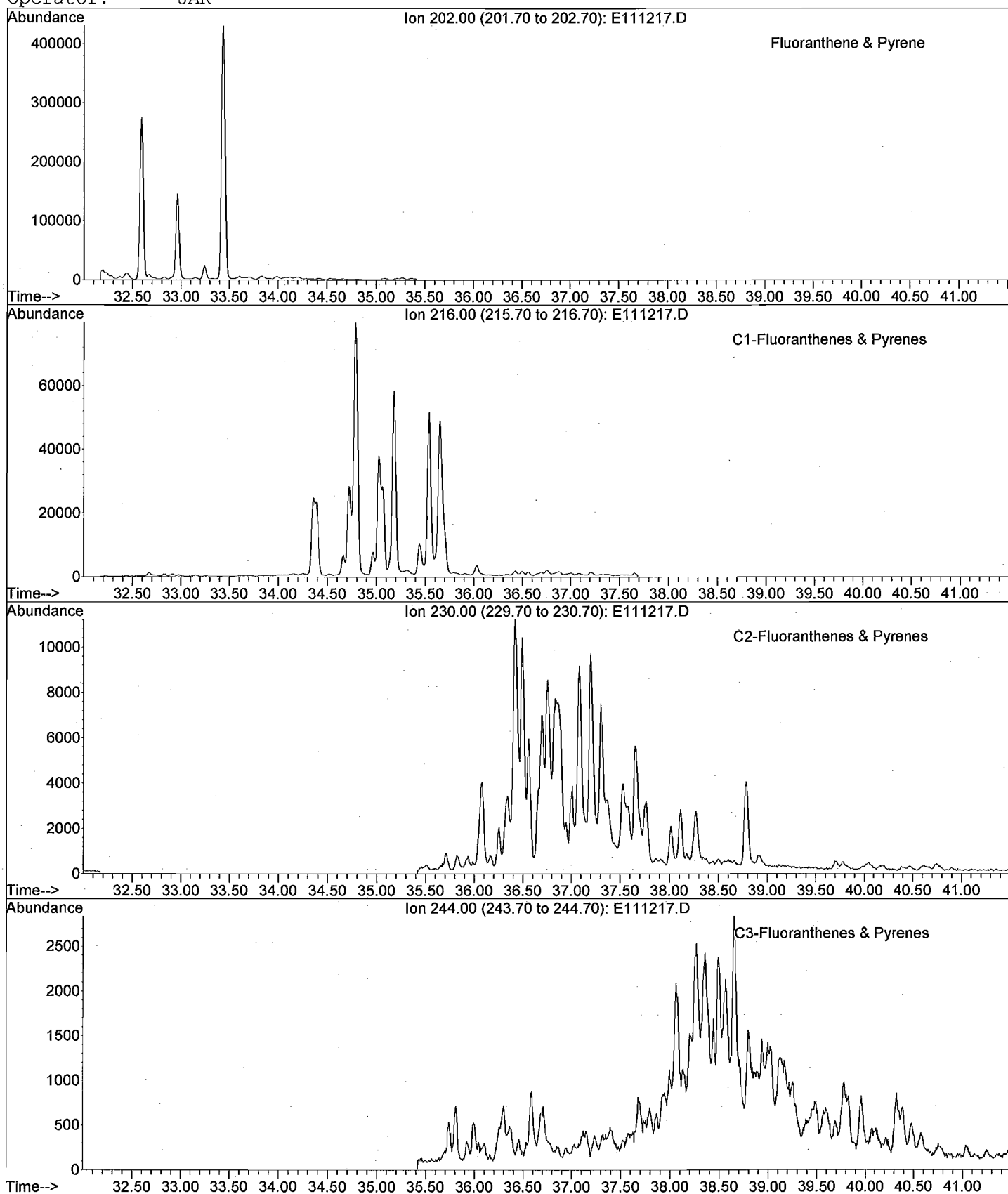
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



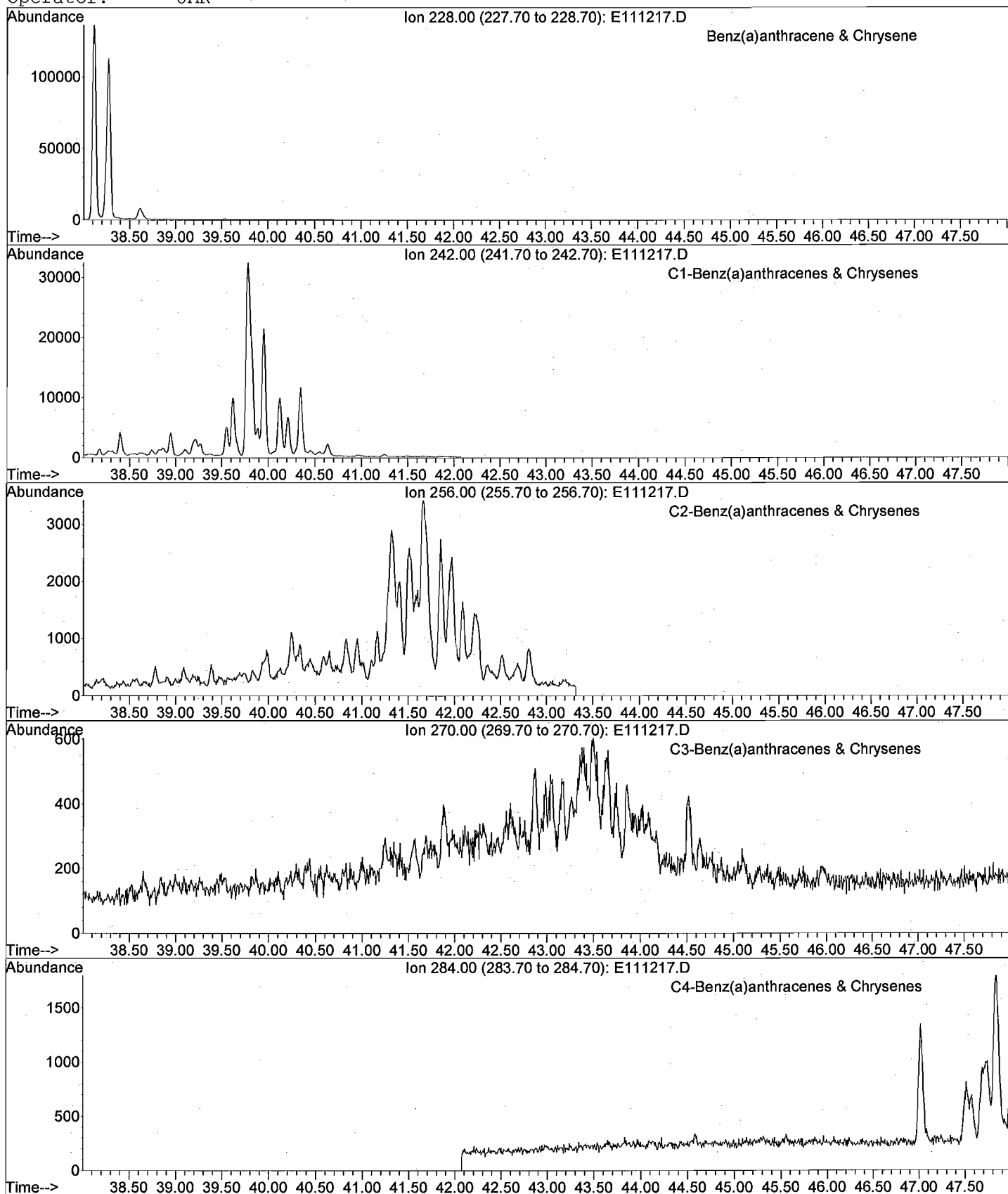
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



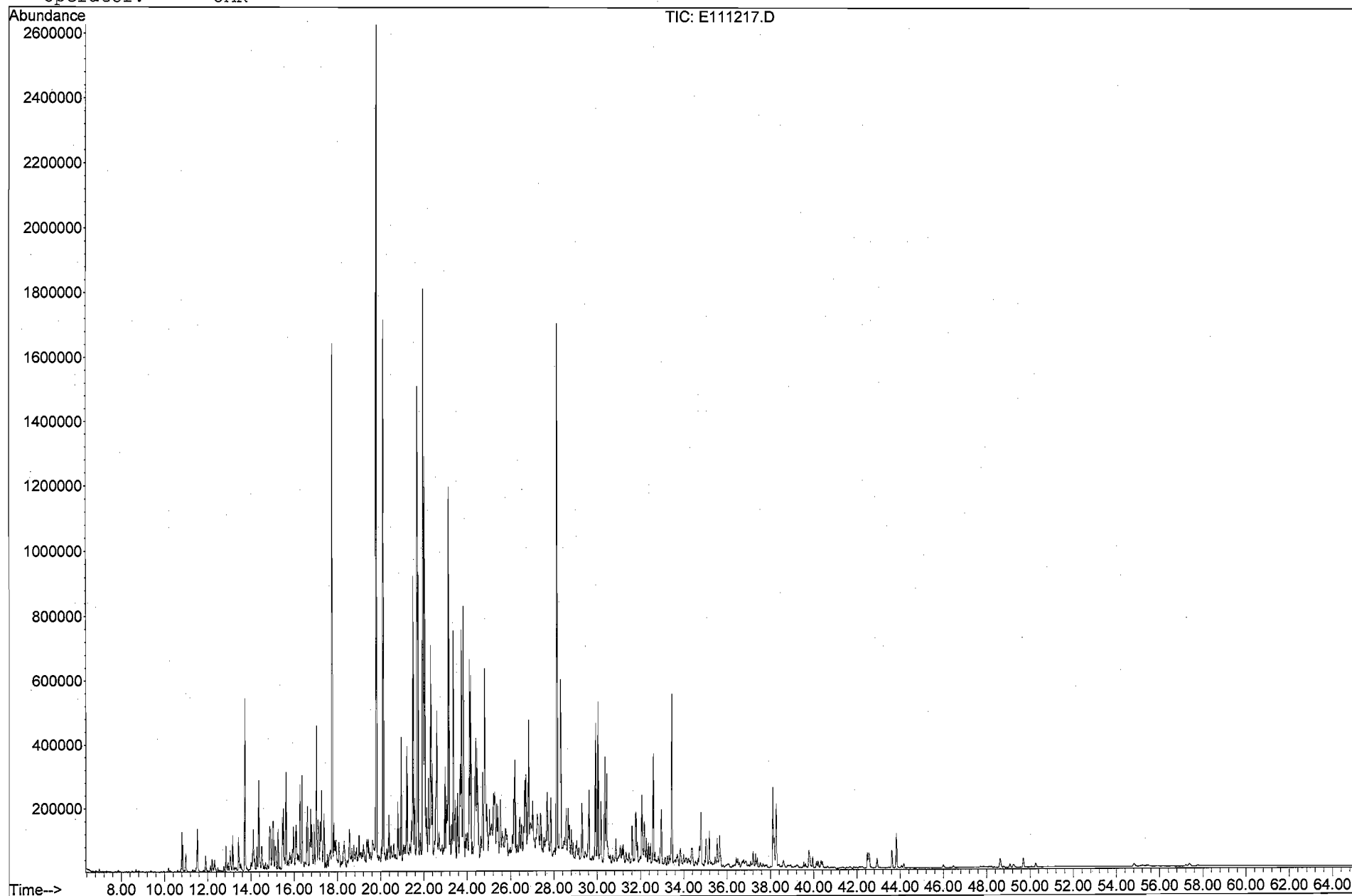
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



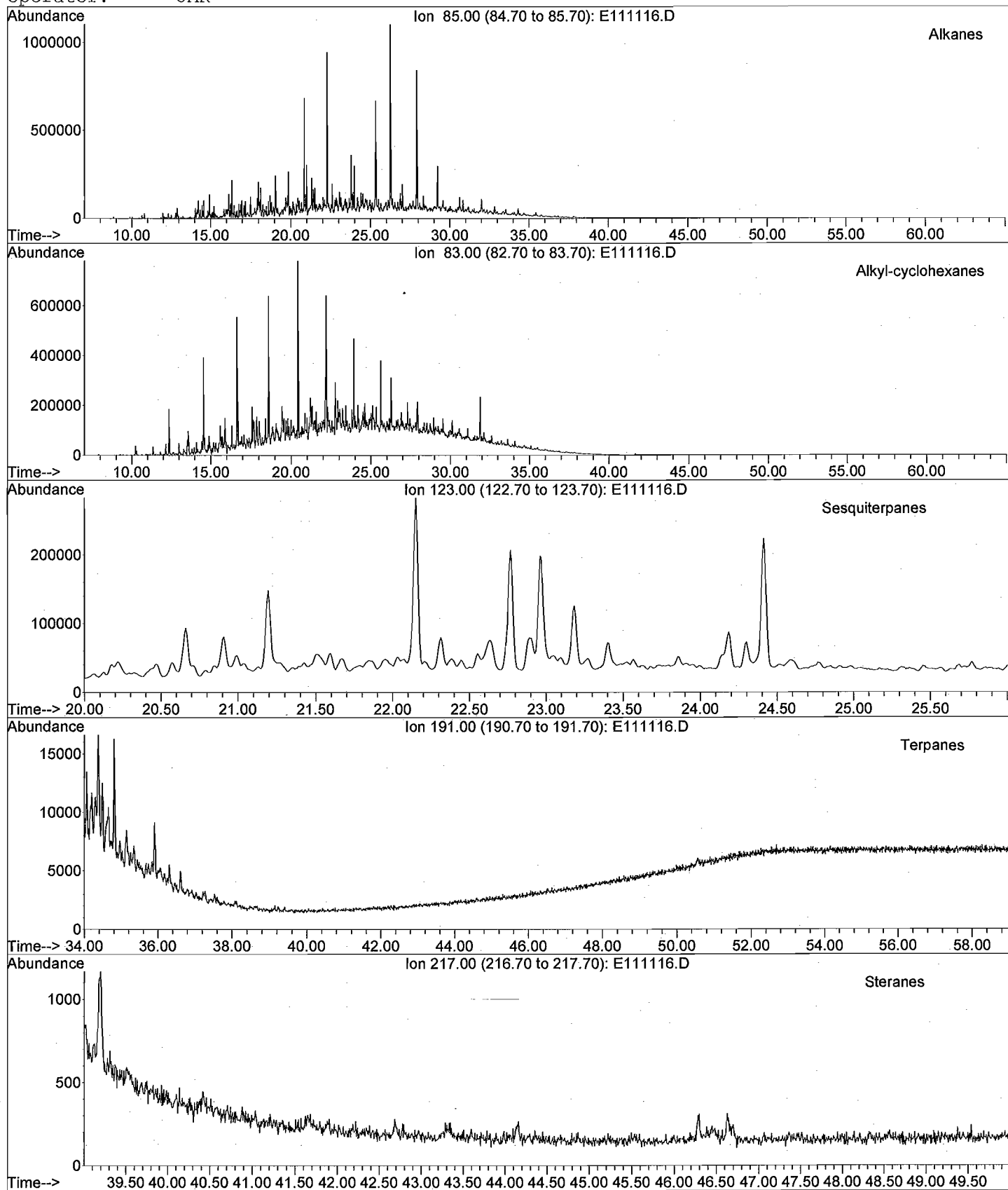
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



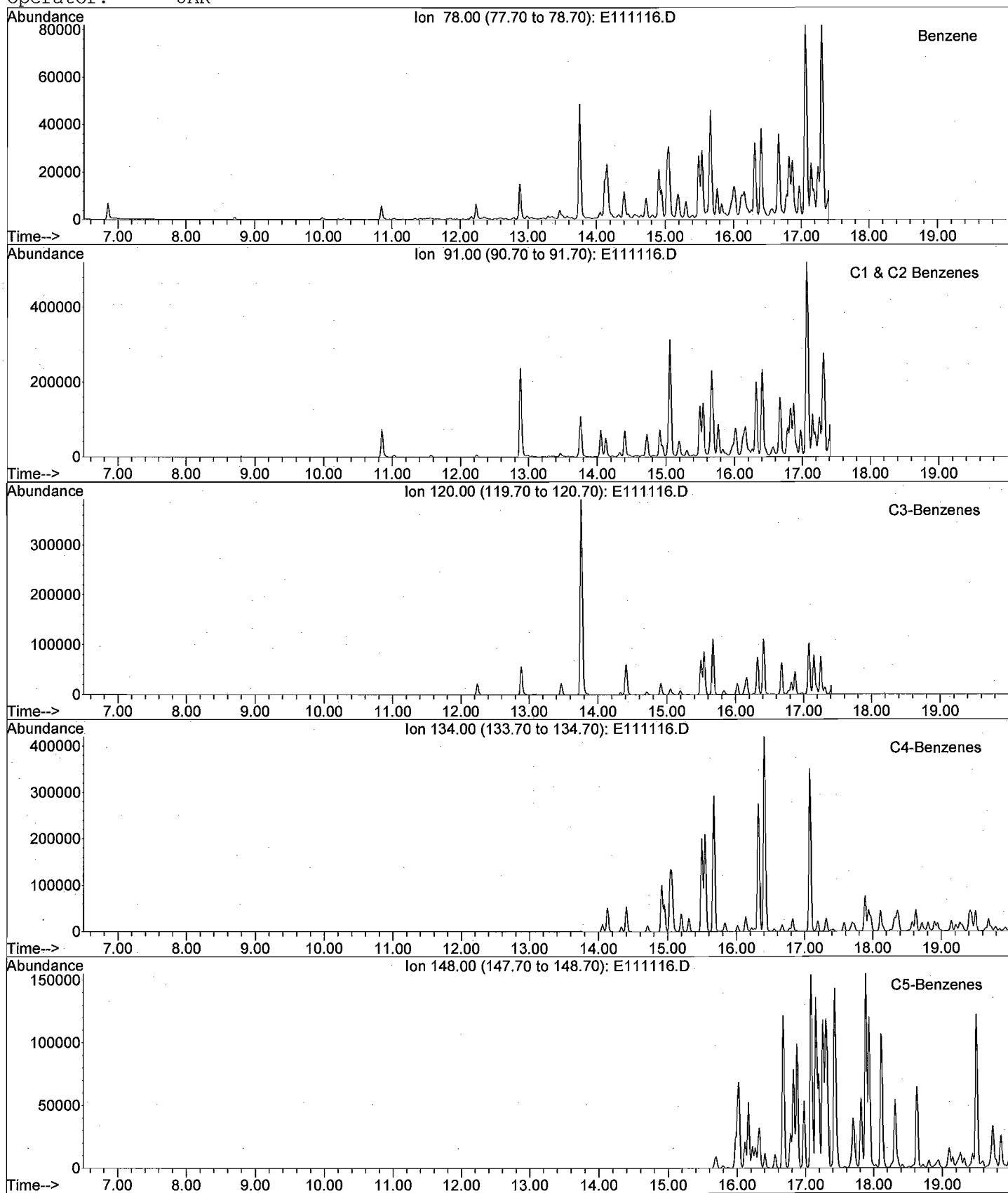
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



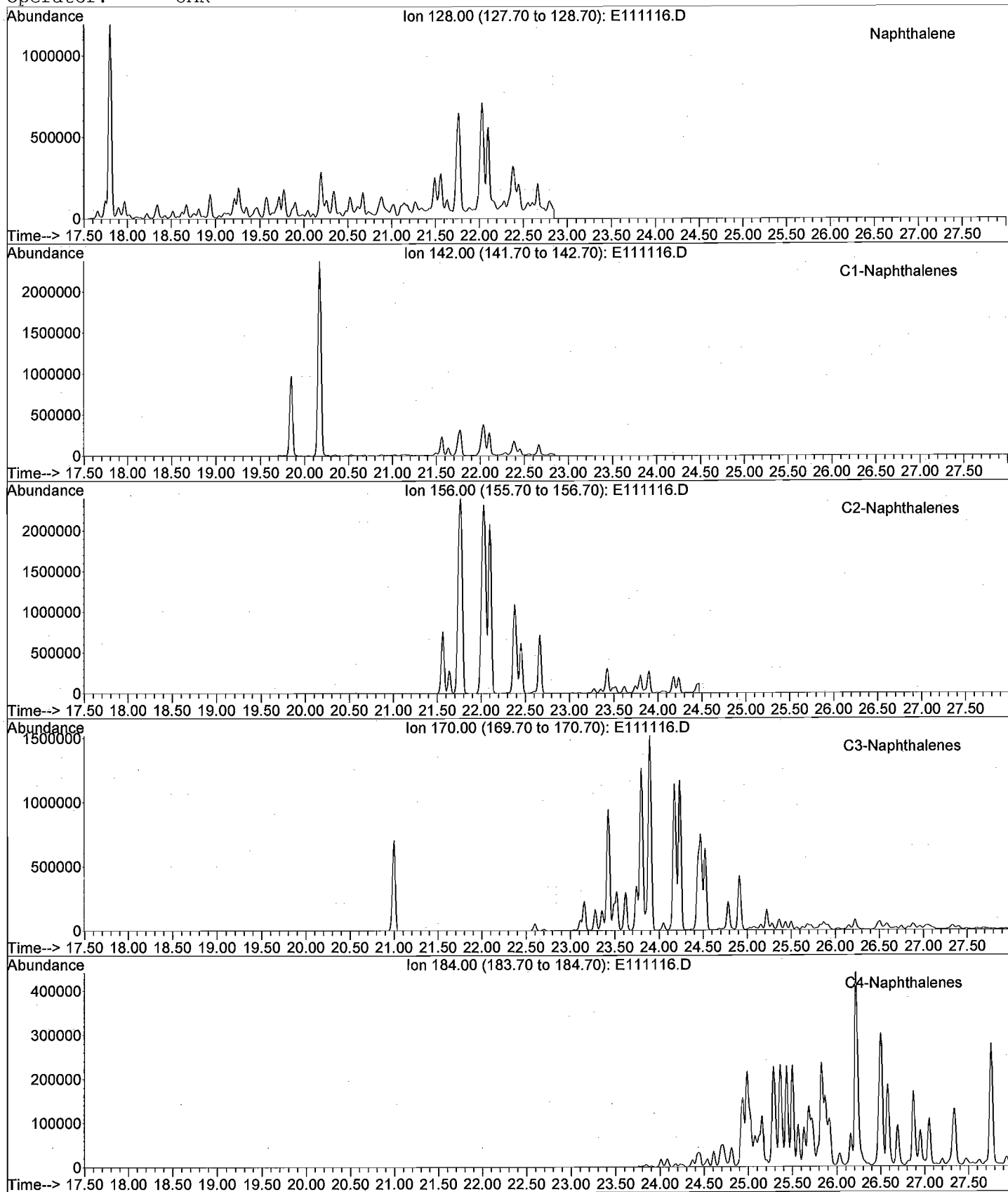
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



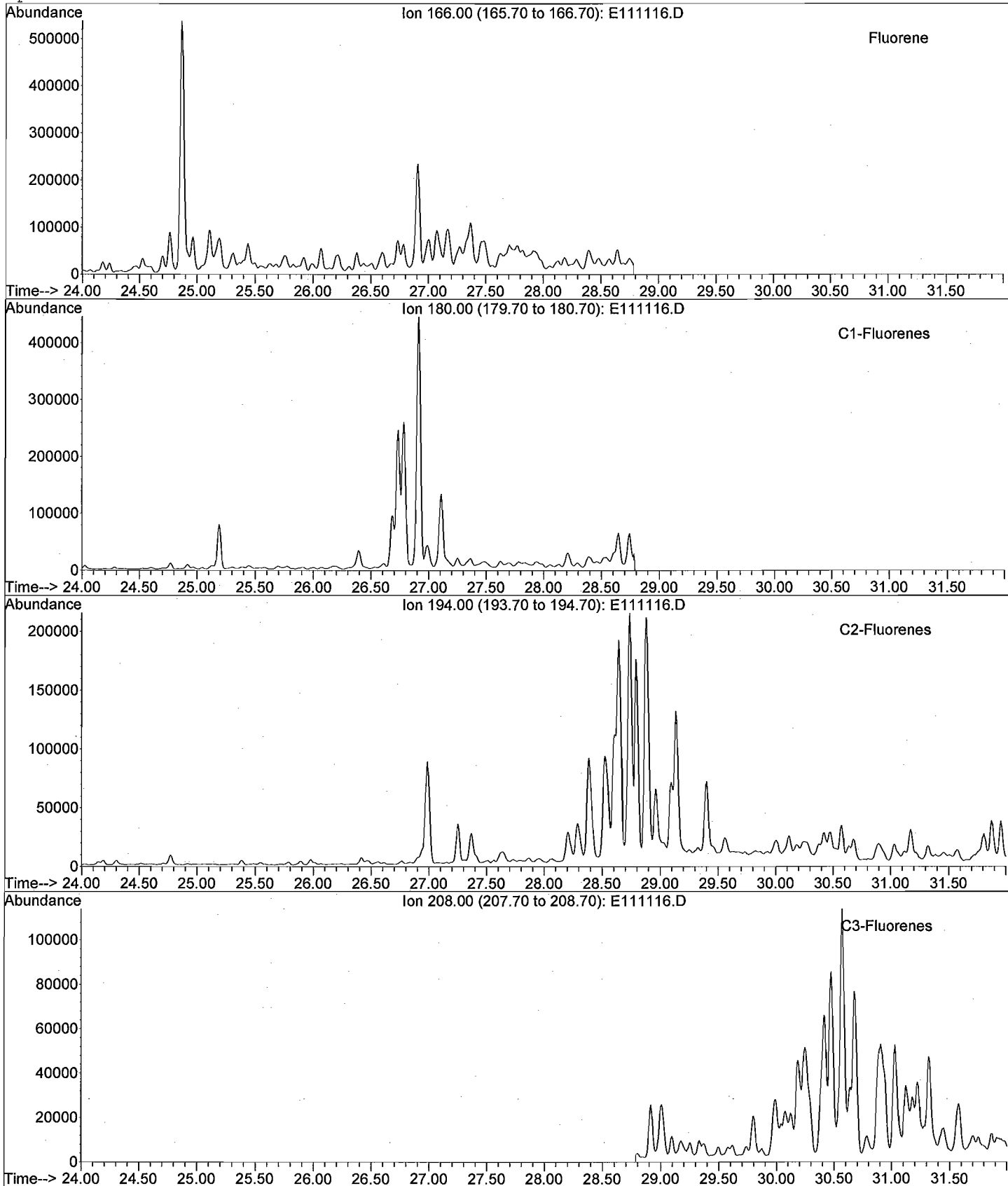
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



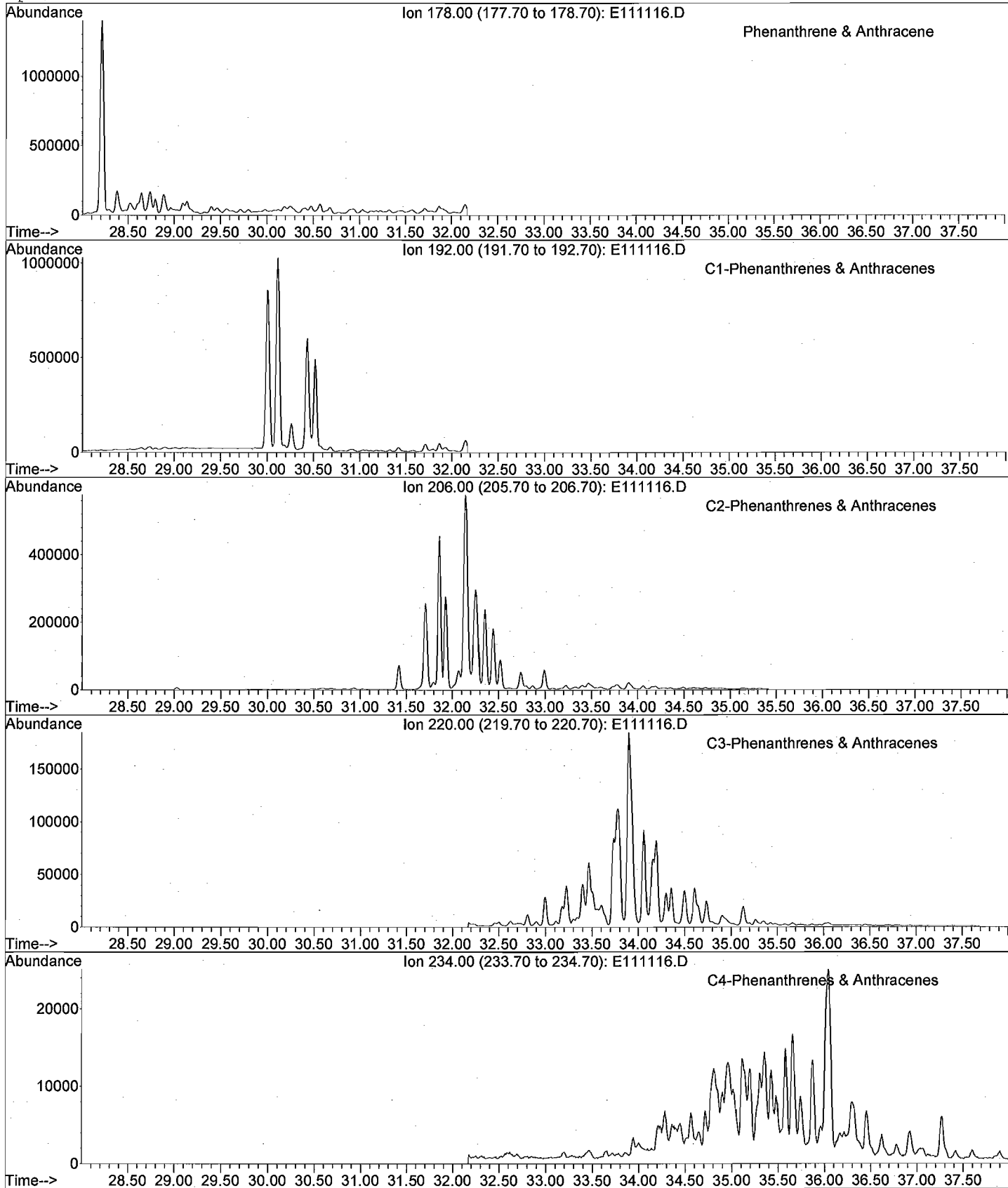
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



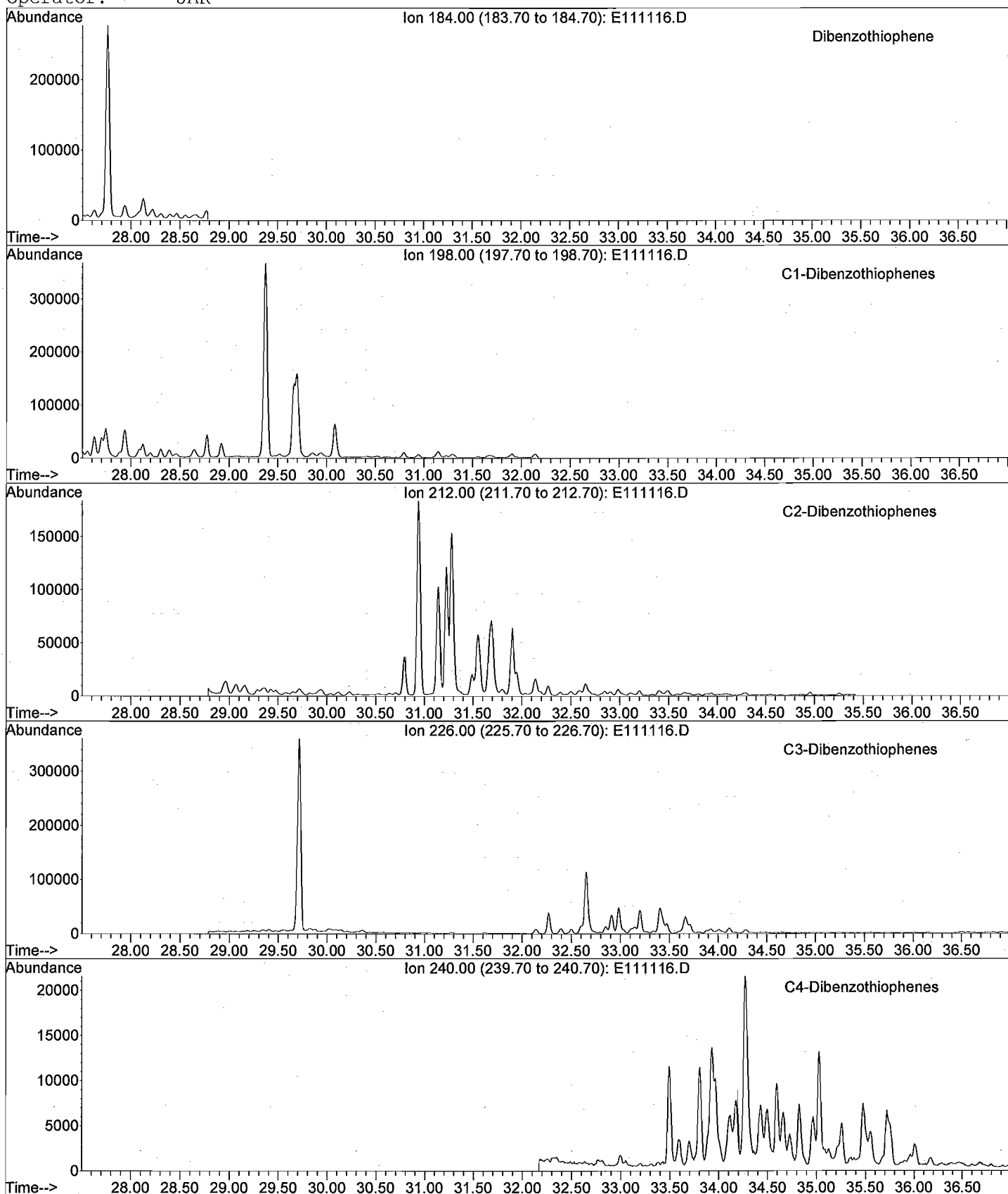
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



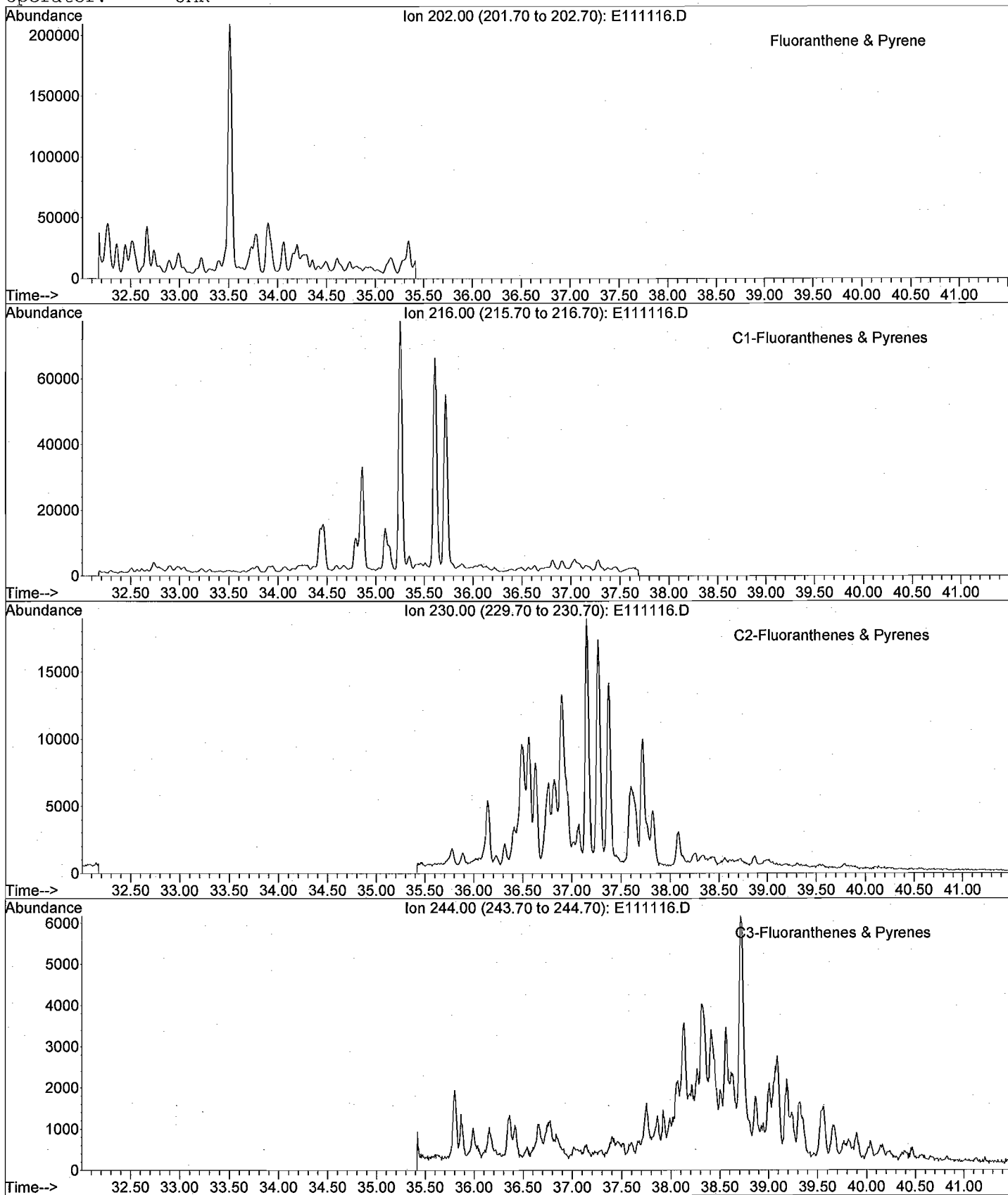
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File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



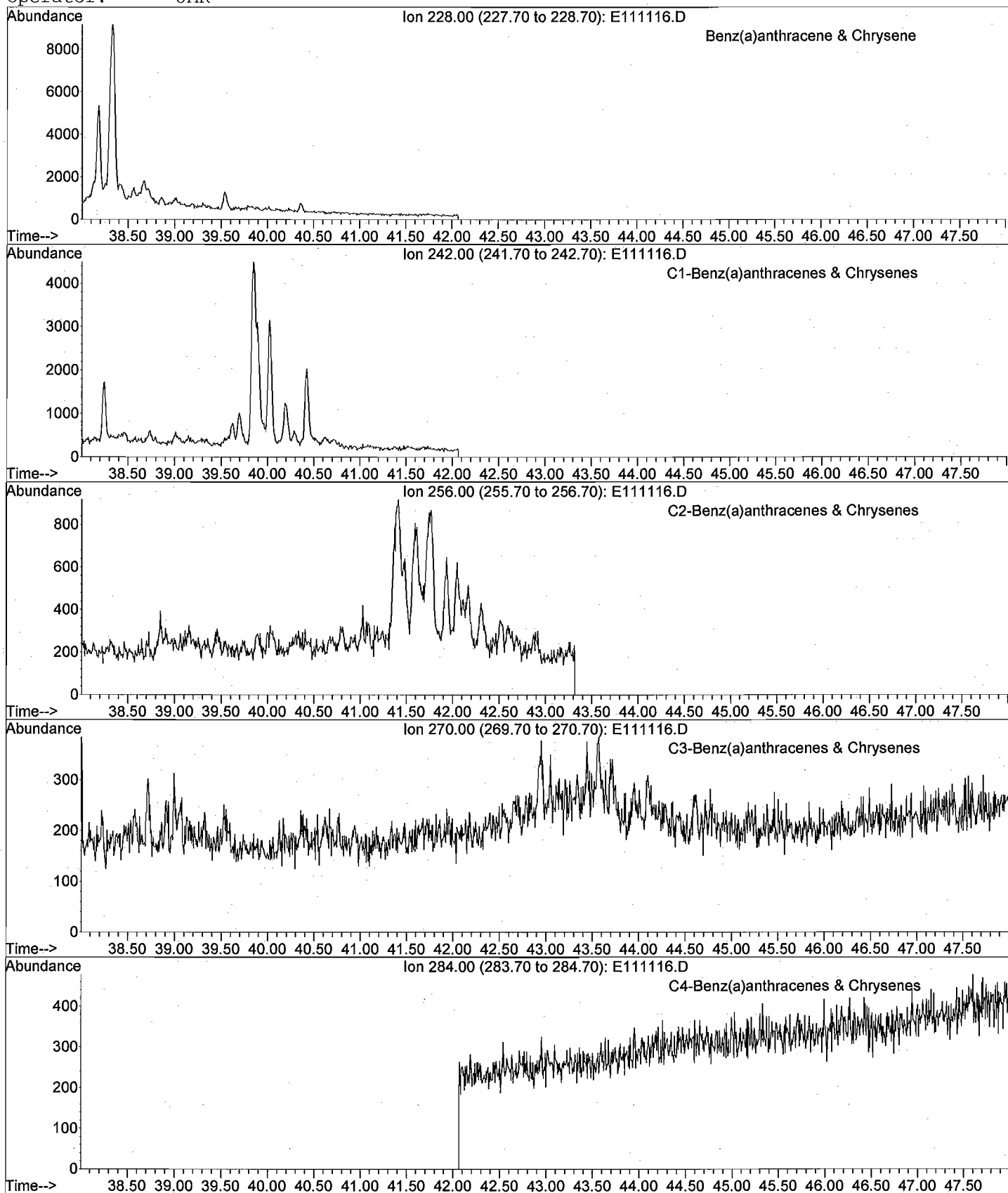
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



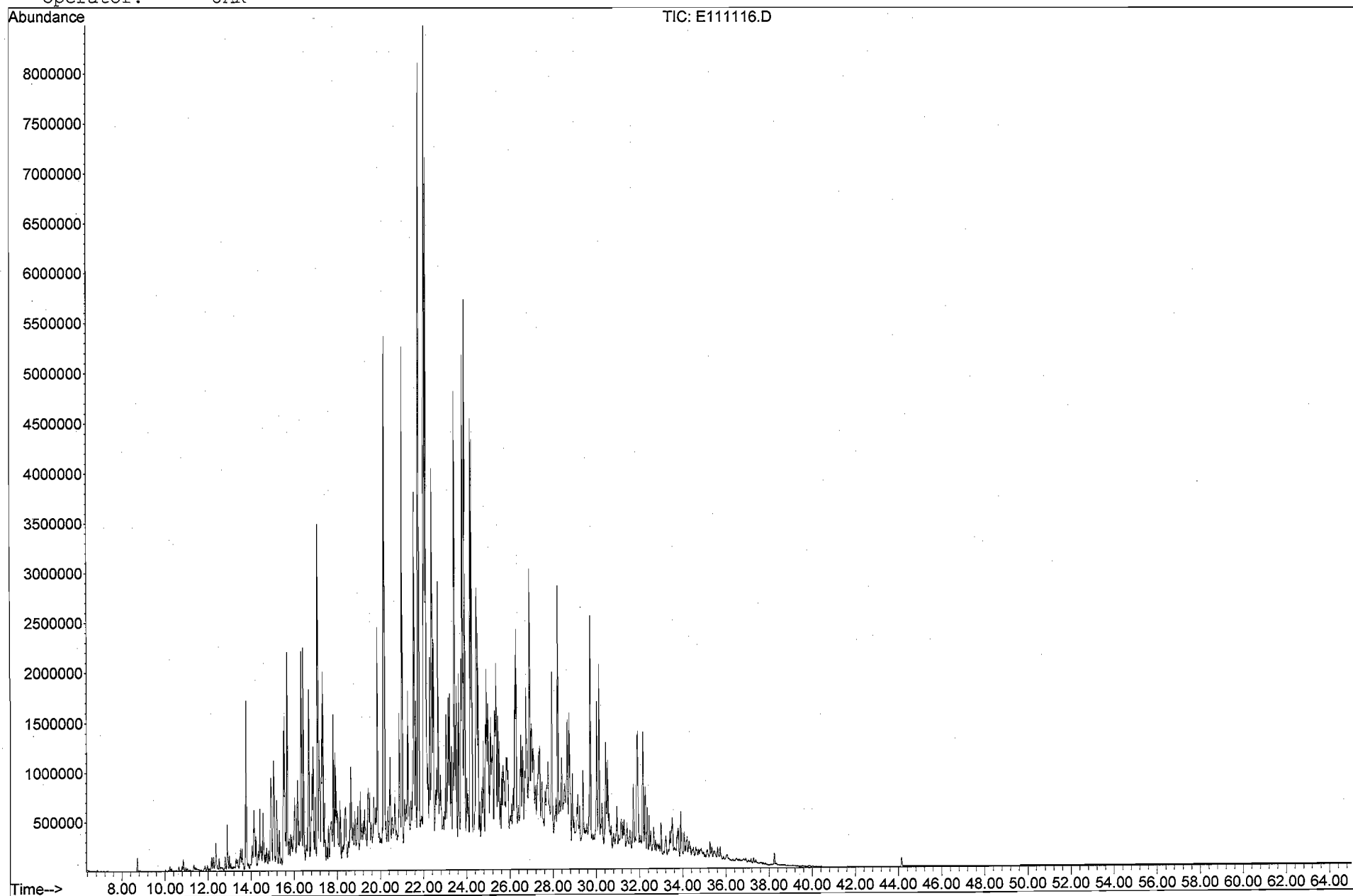
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



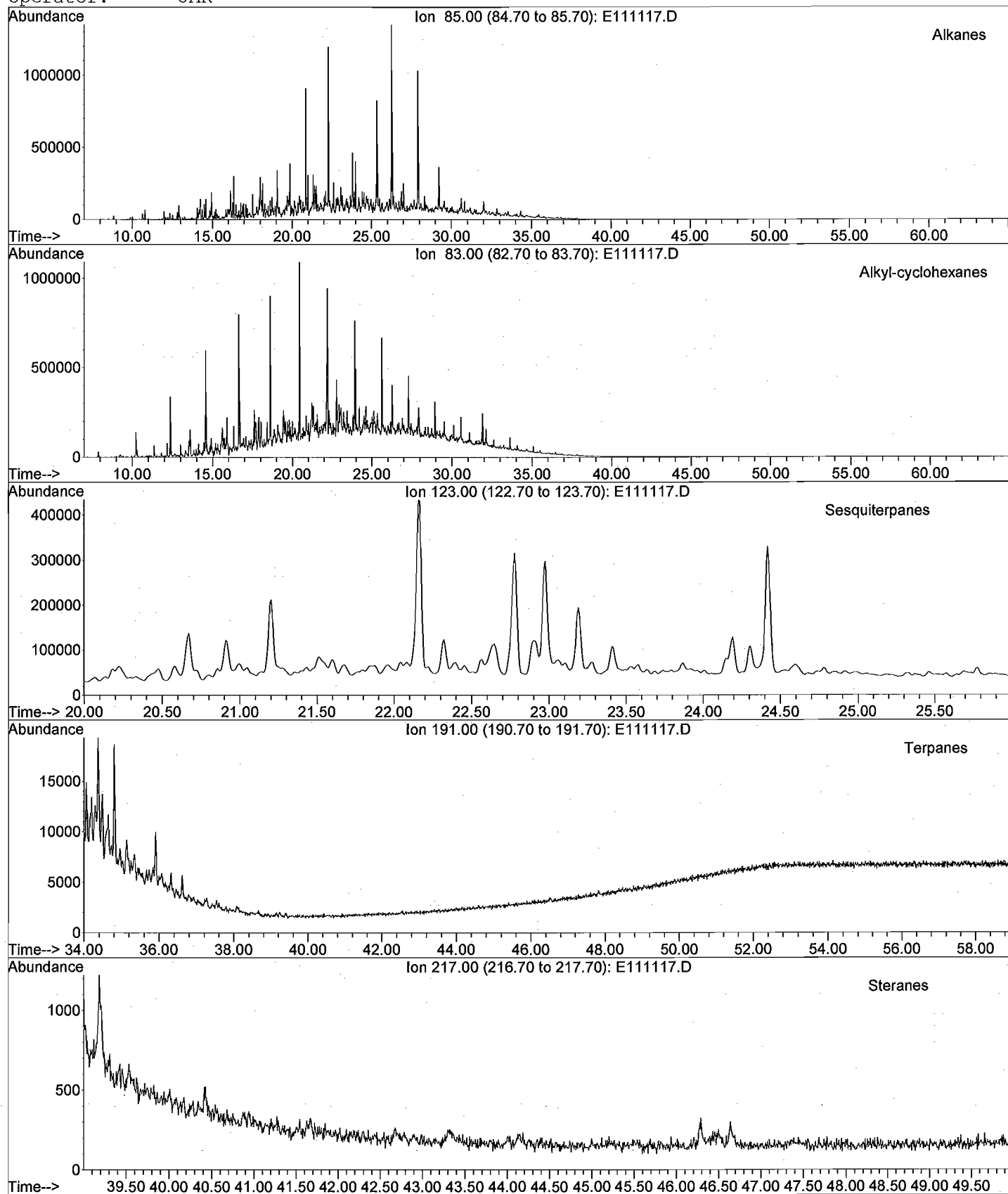
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



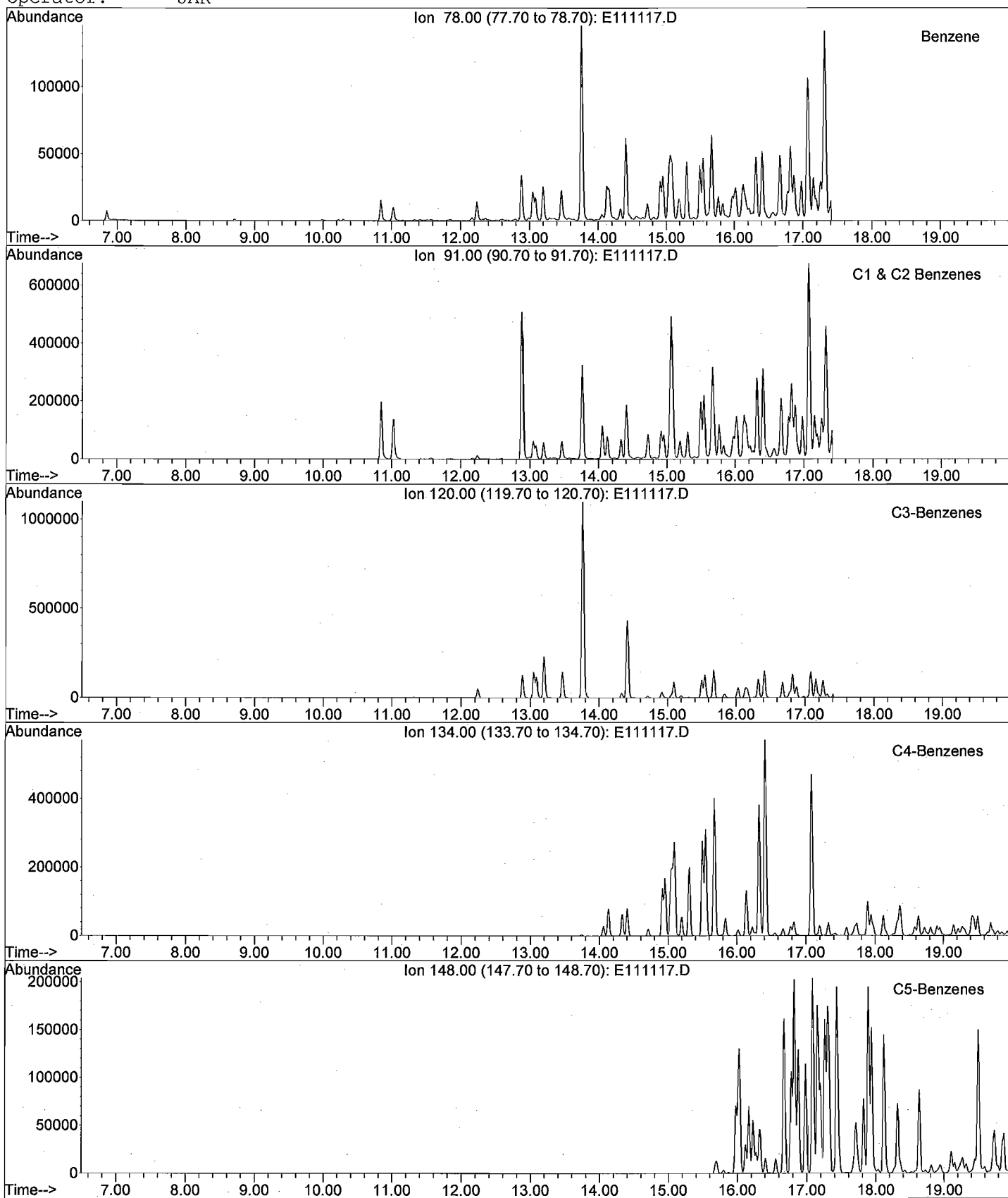
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



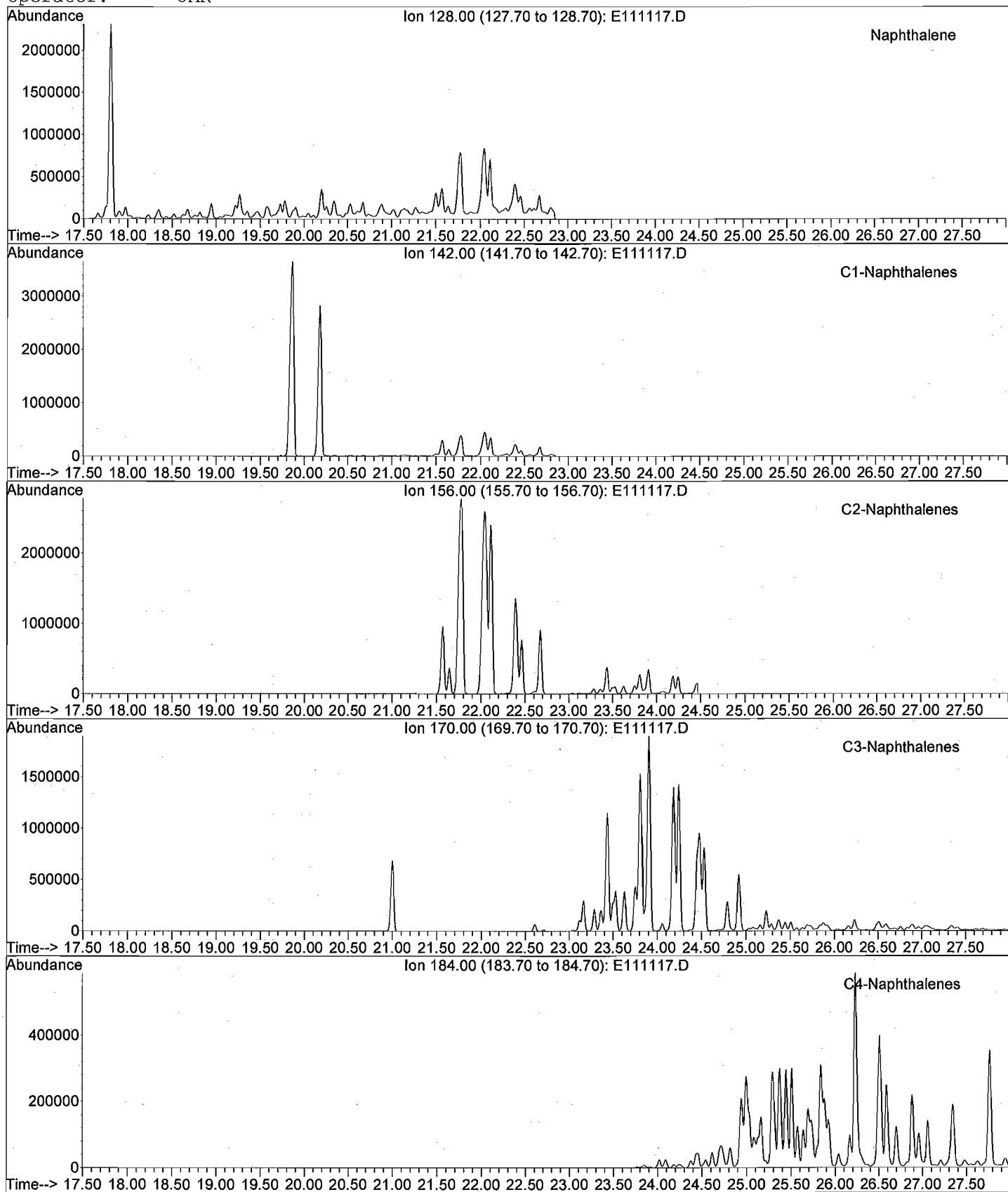
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



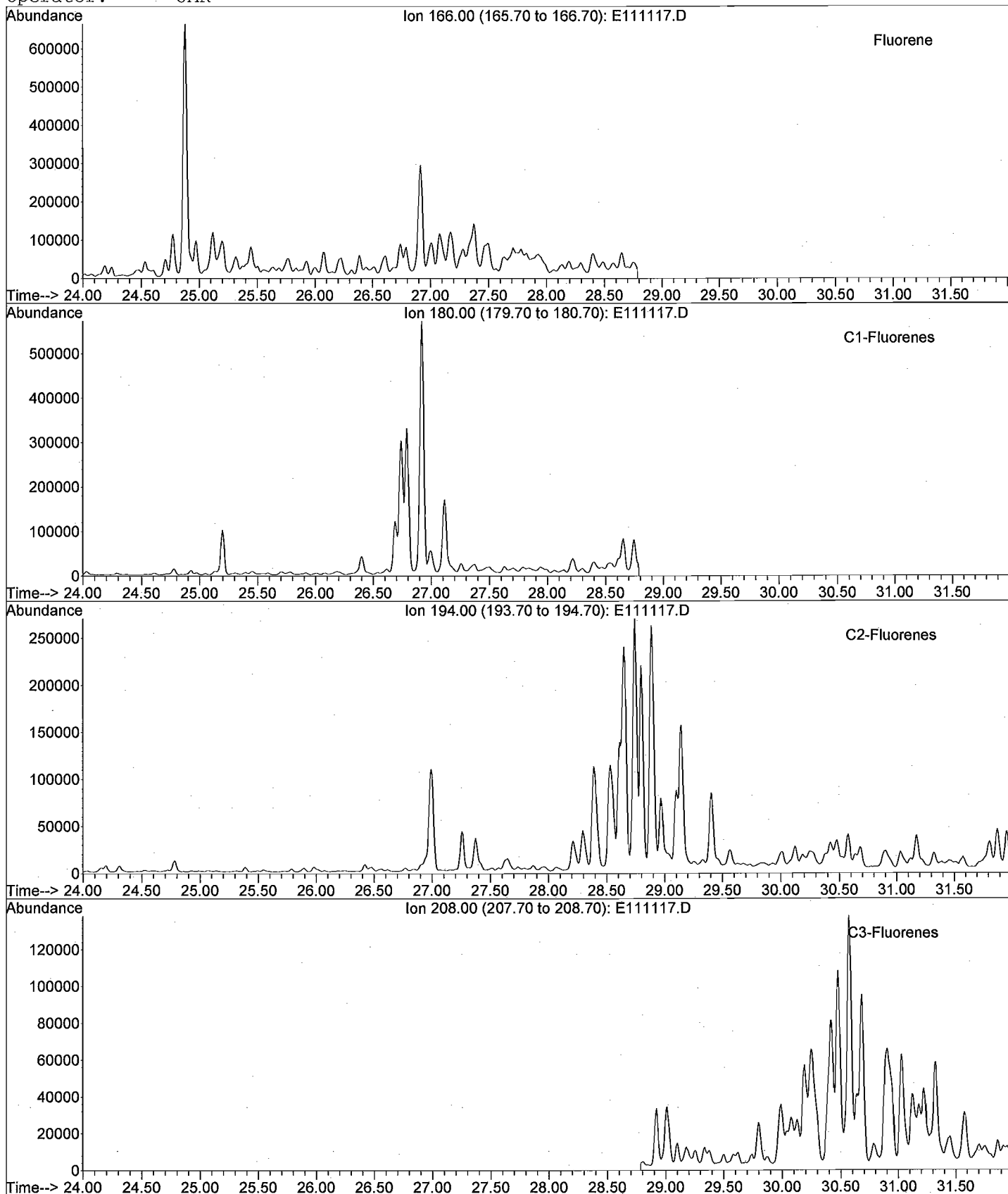
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



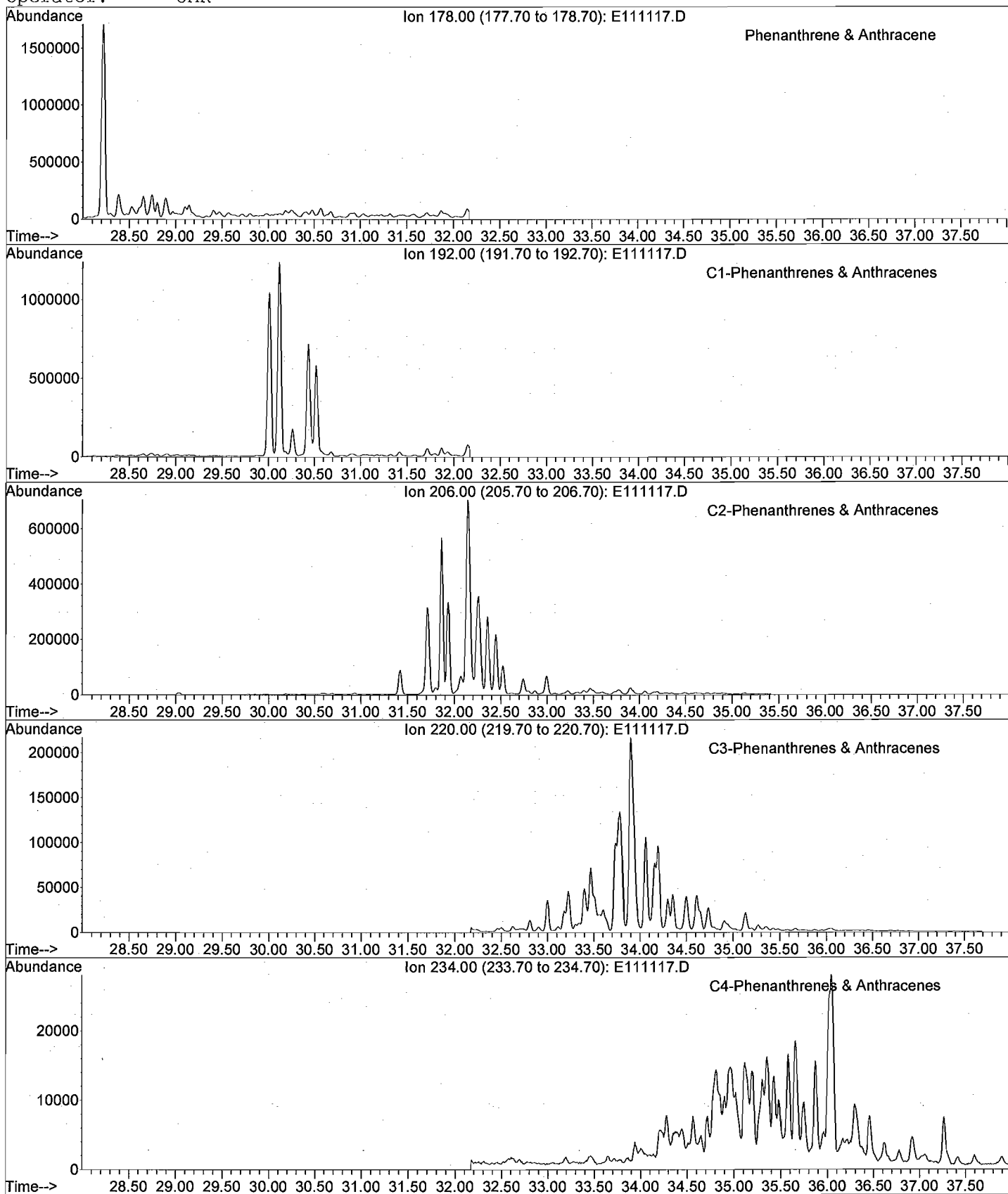
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



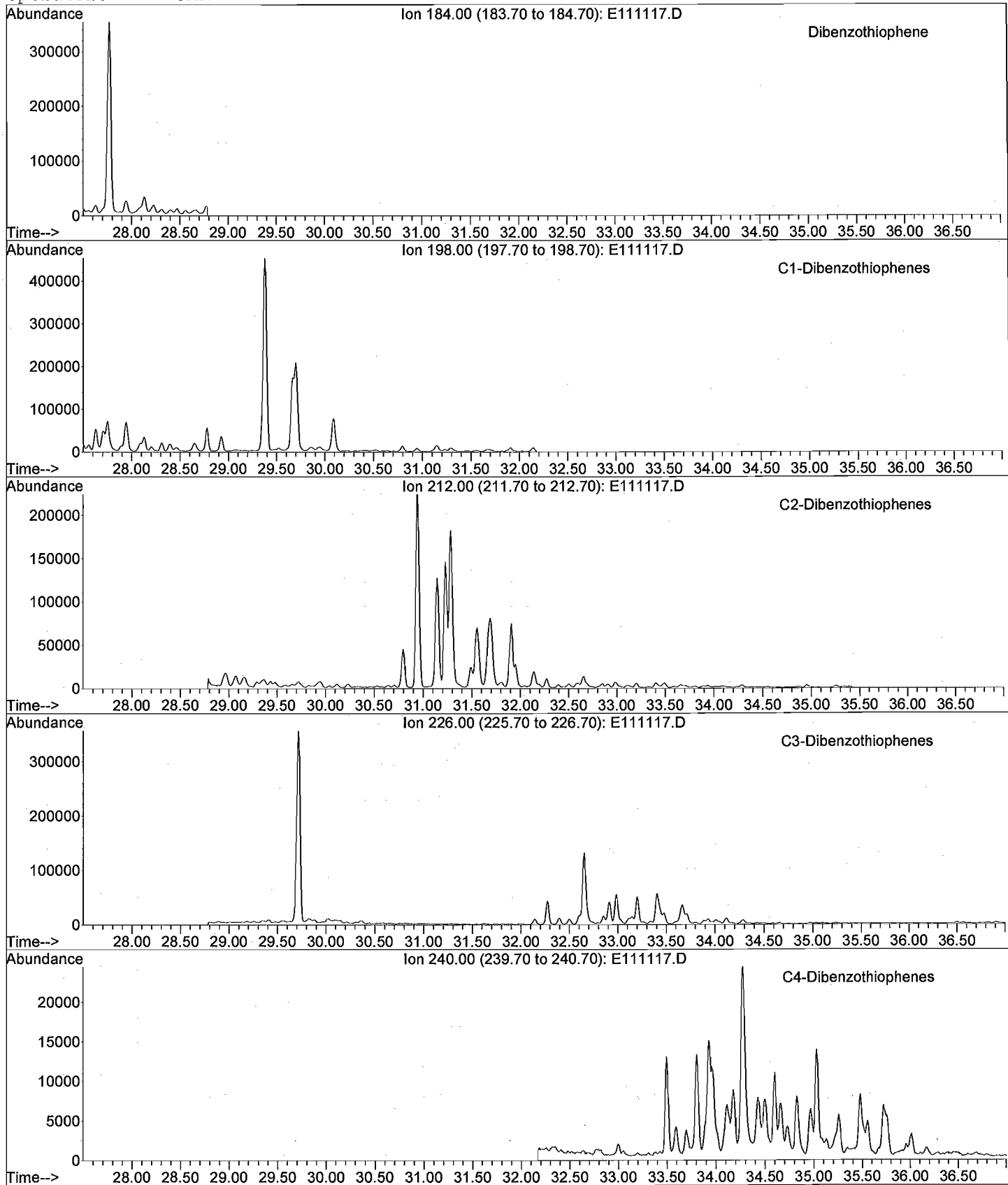
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



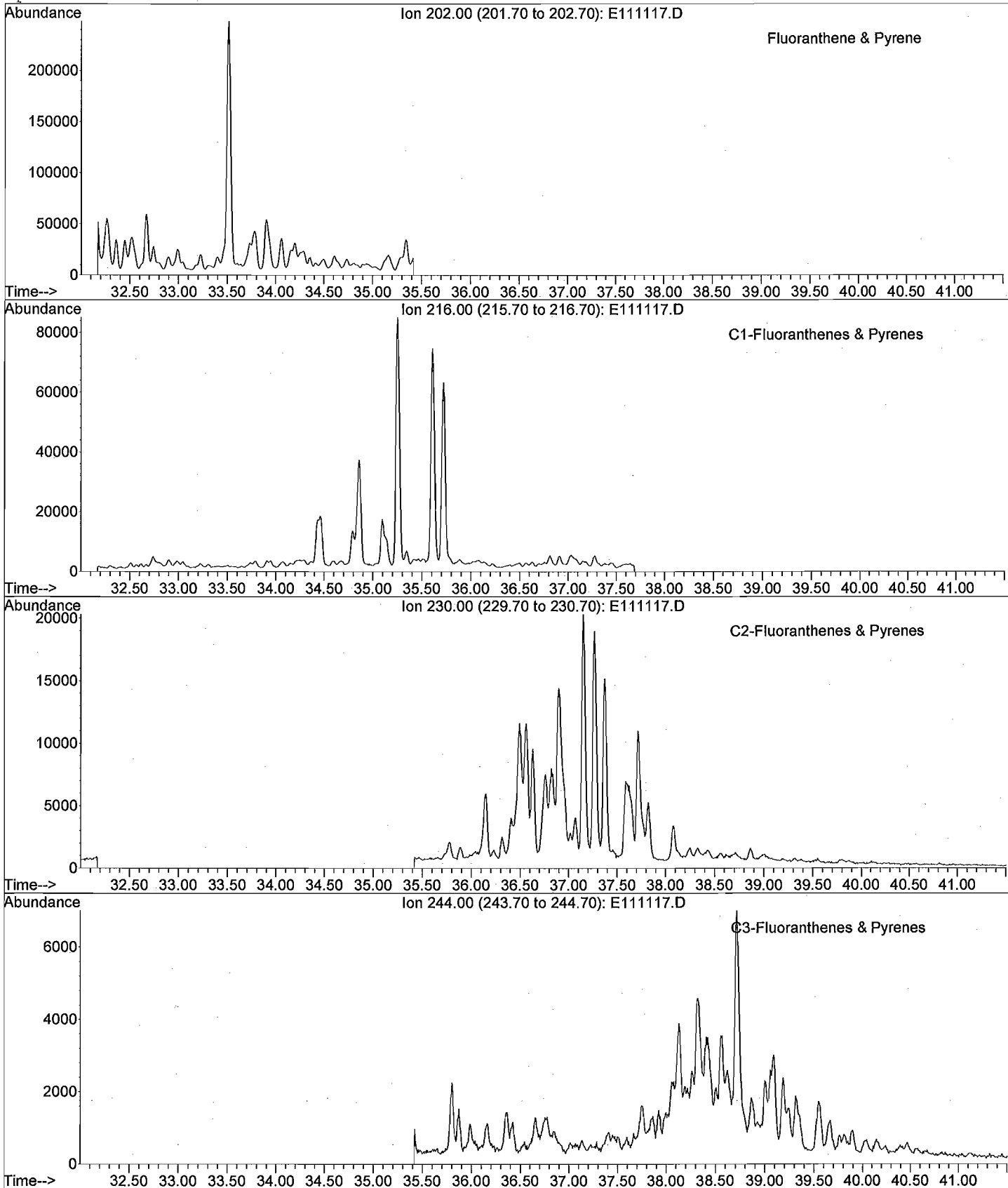
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



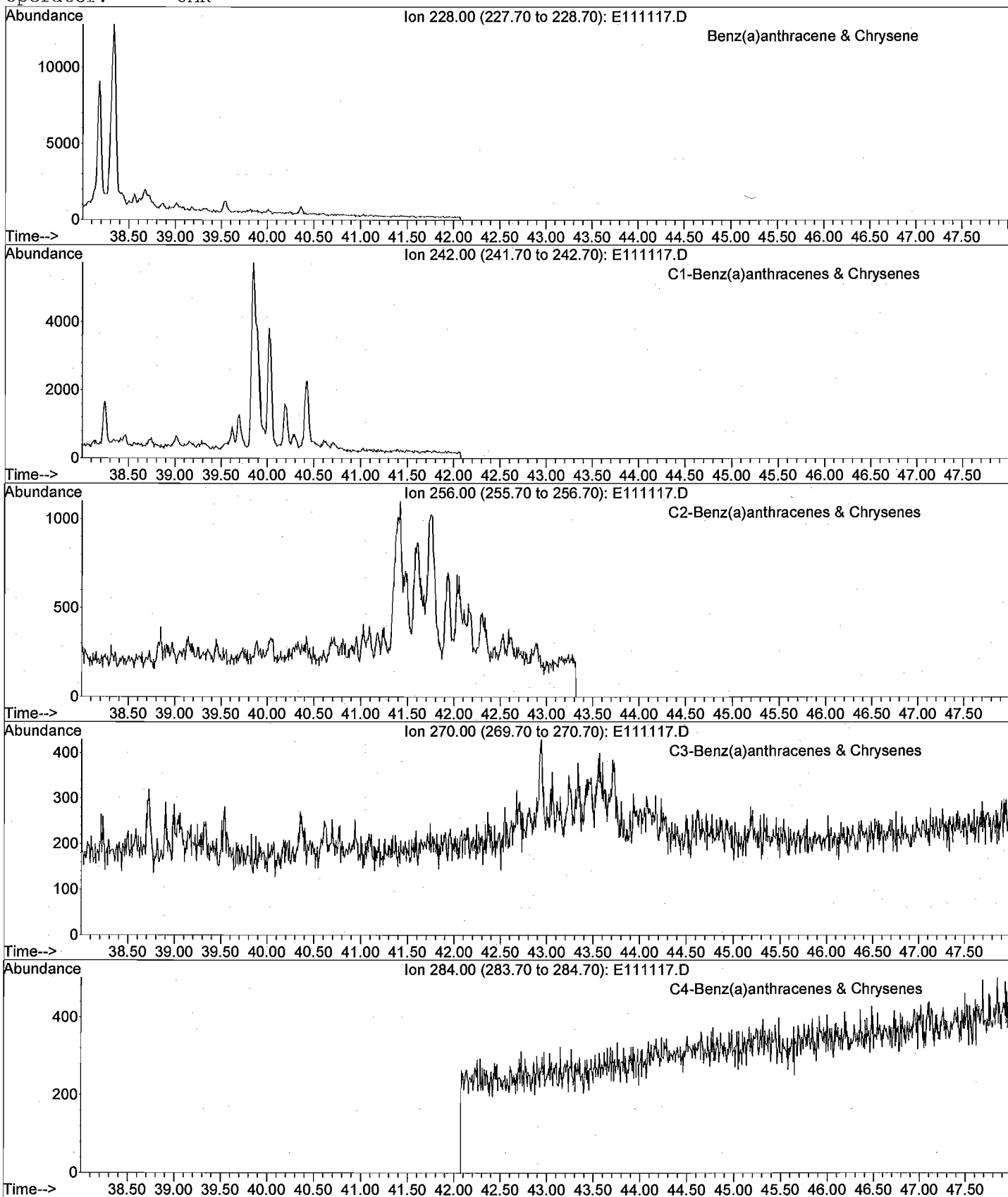
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



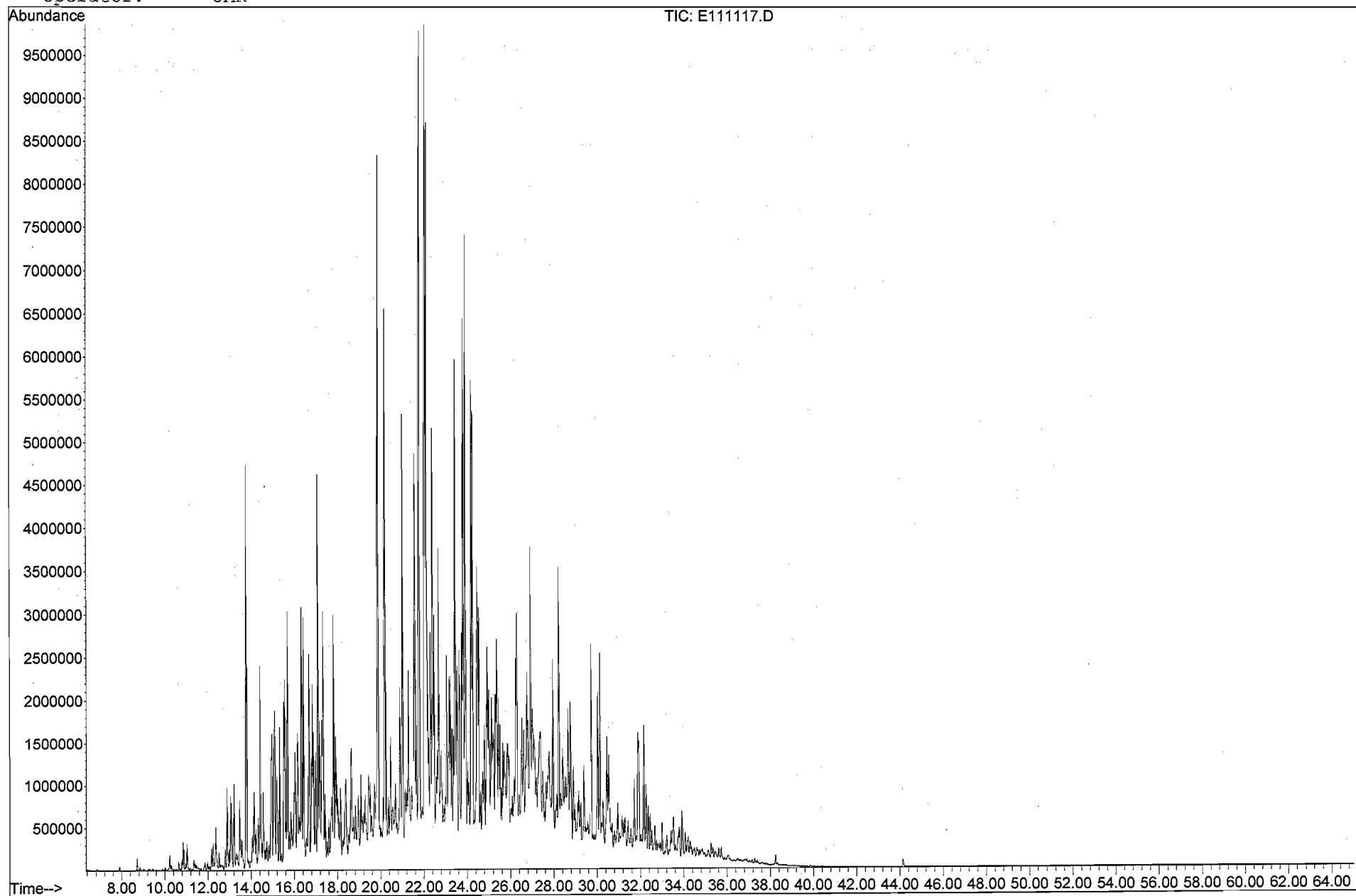
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



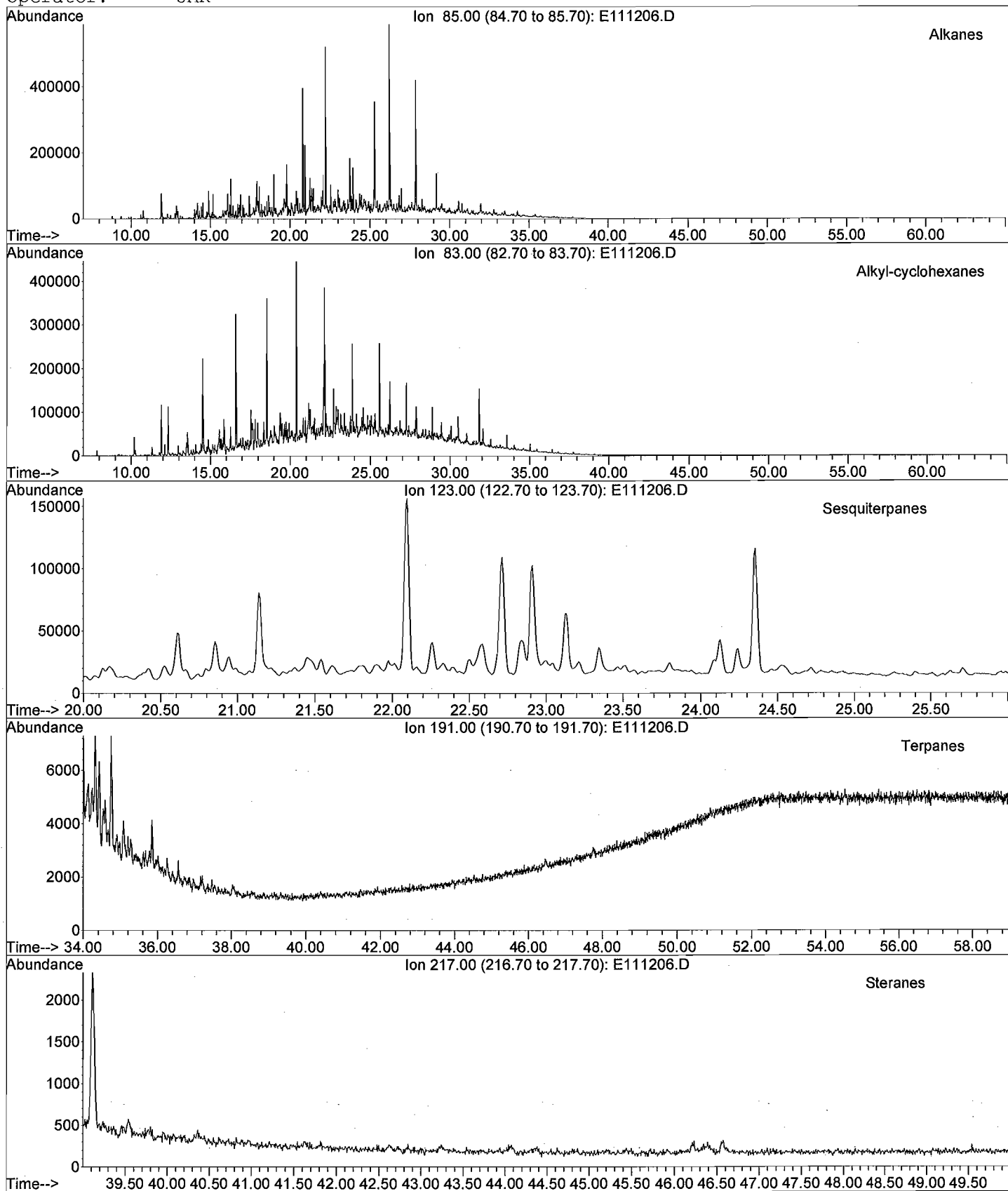
GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



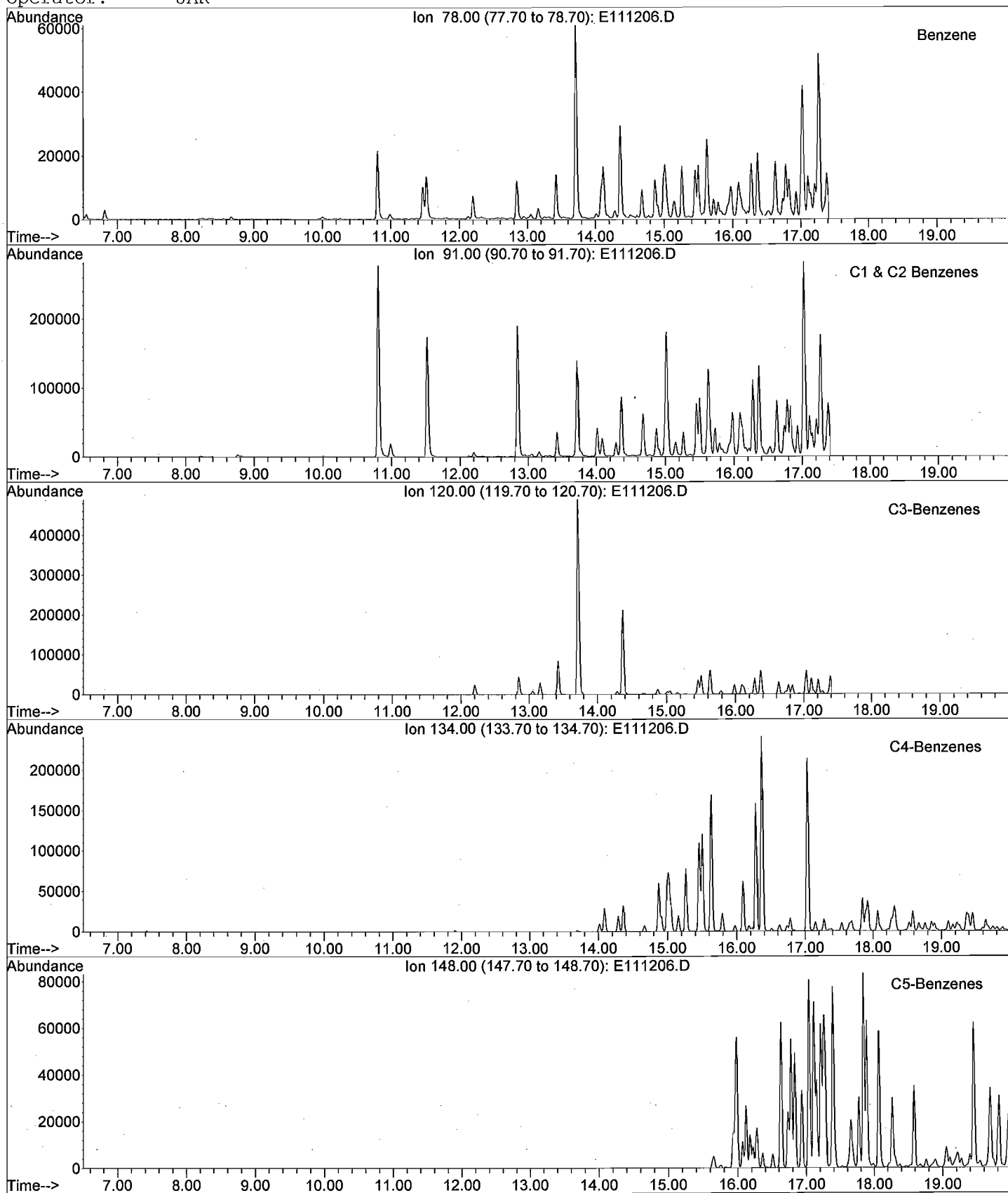
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



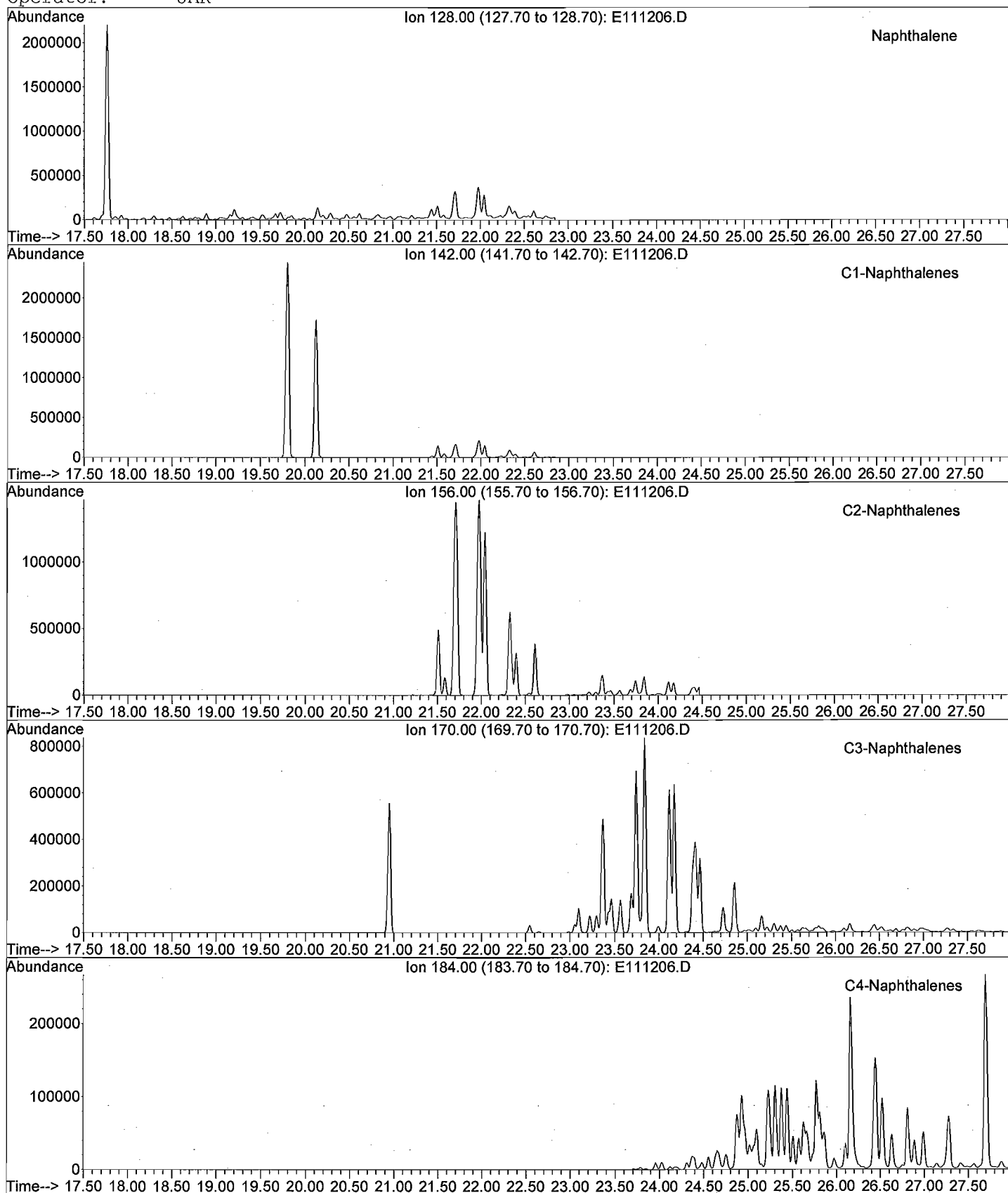
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



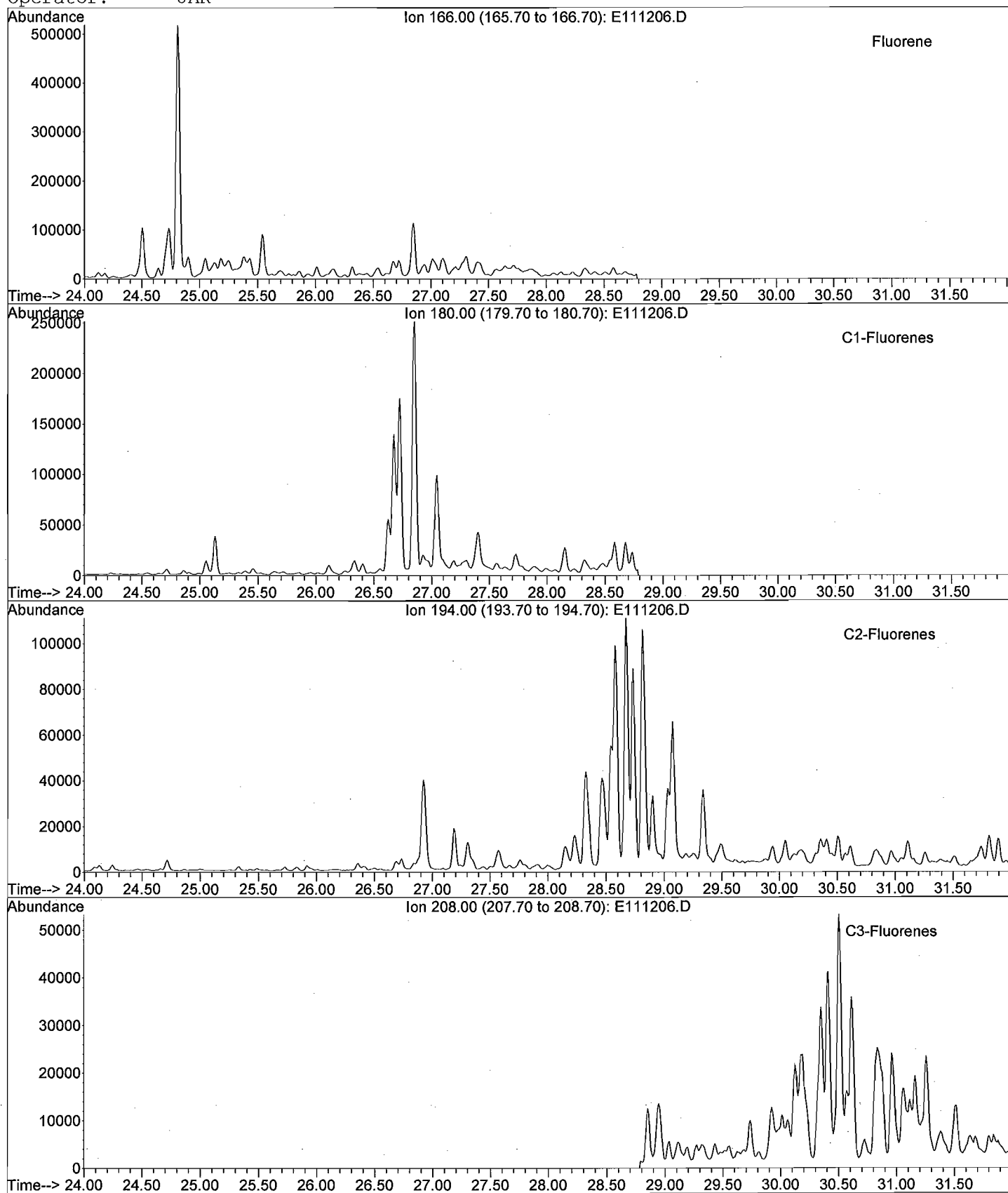
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



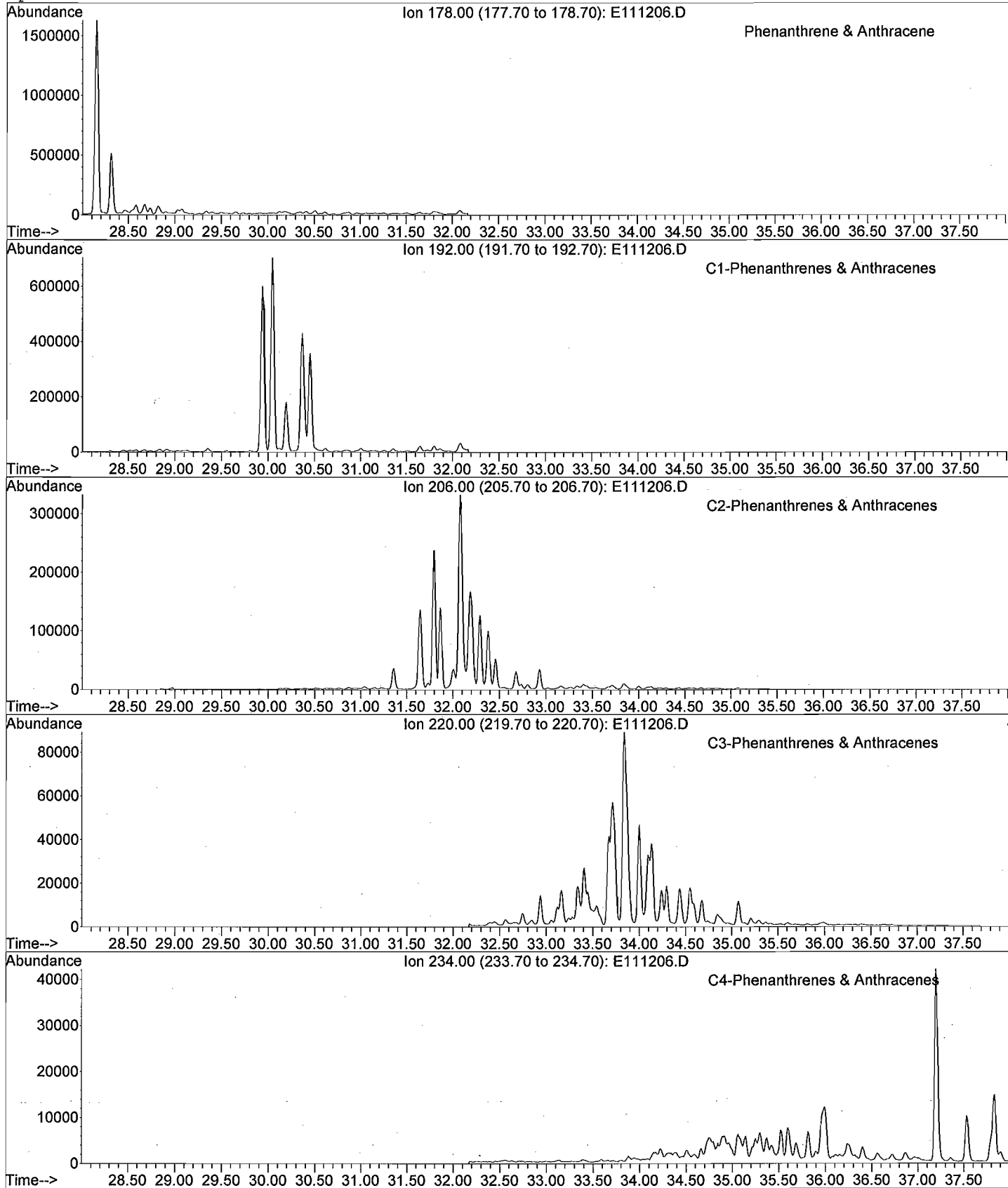
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



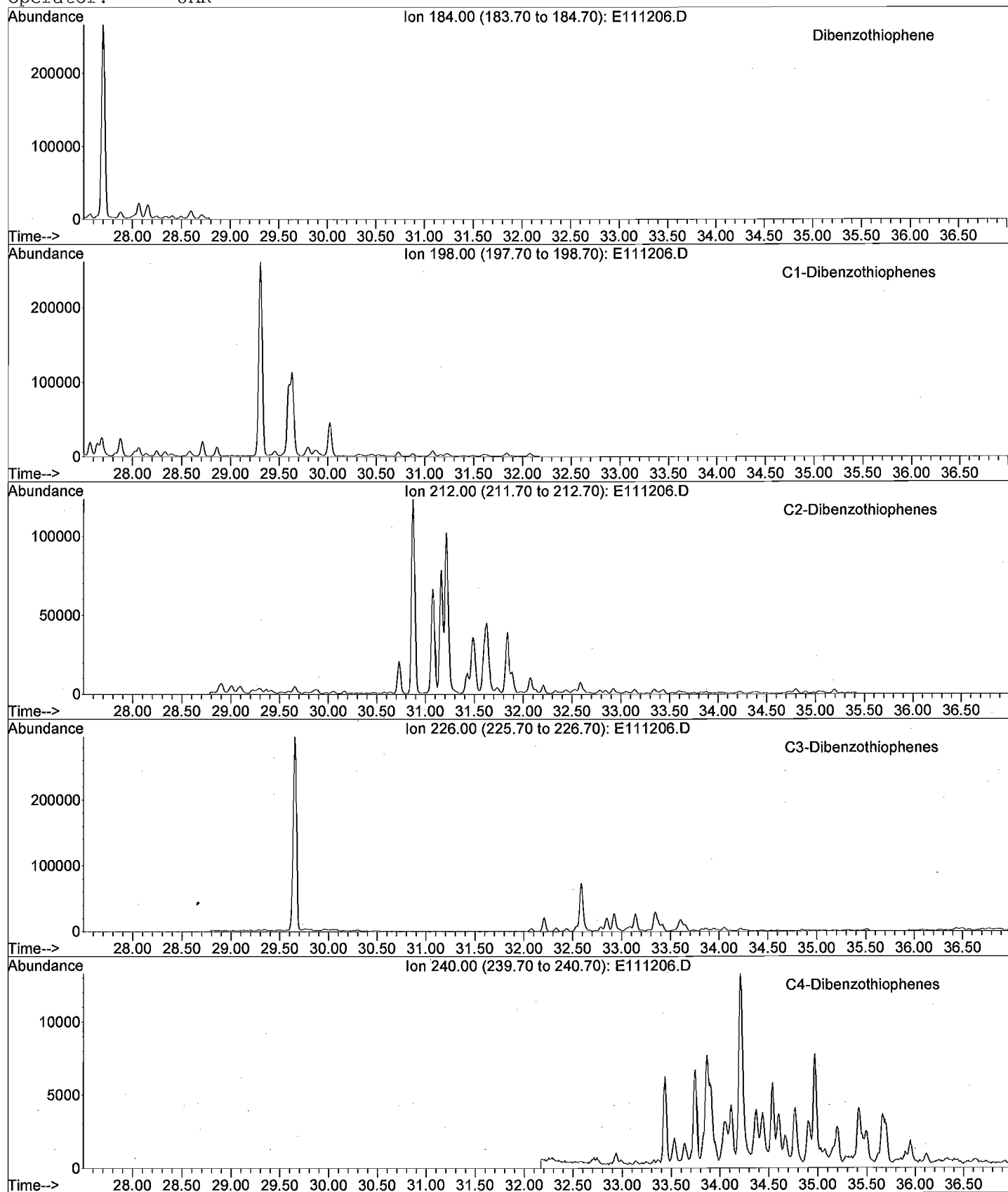
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



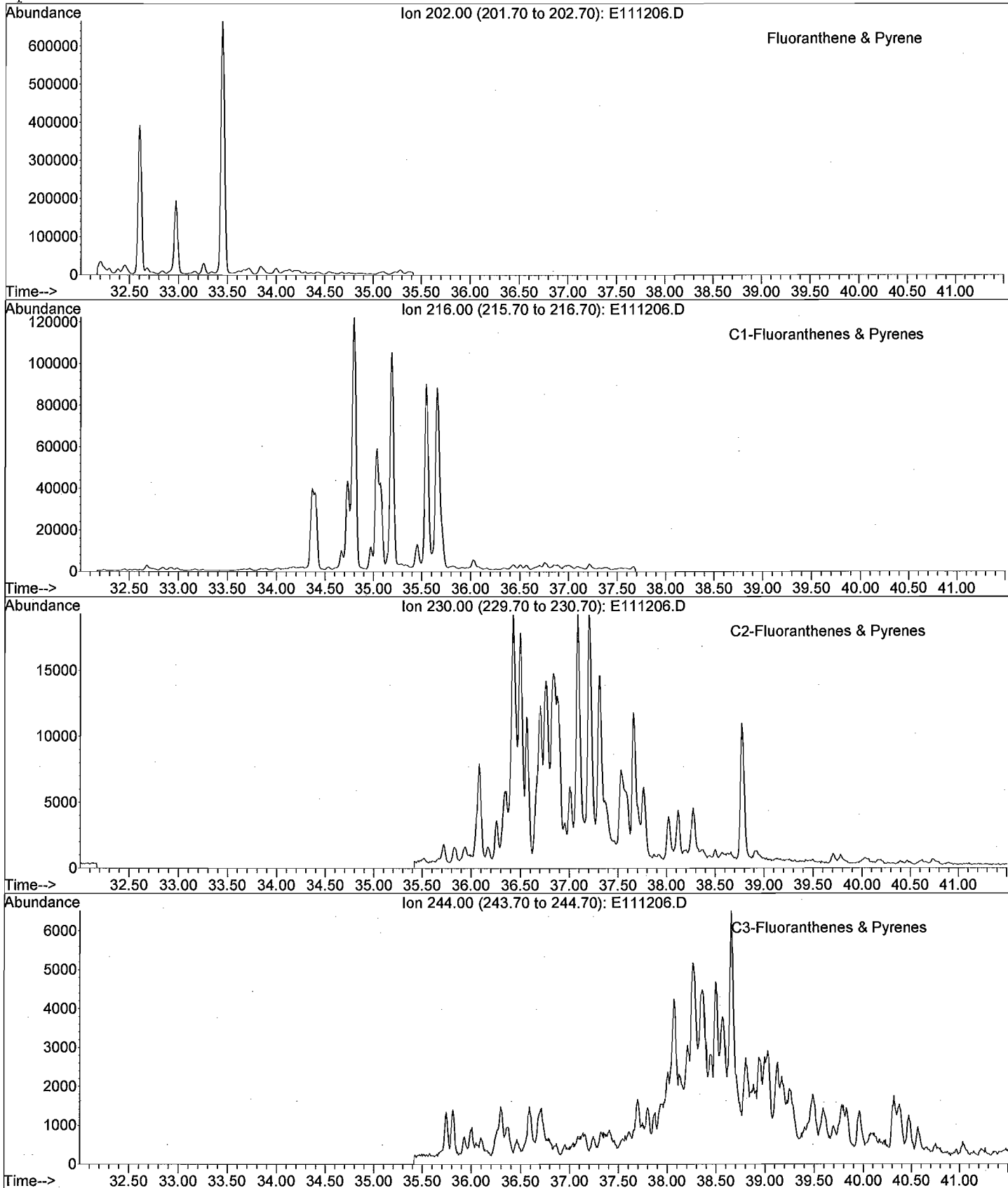
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Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



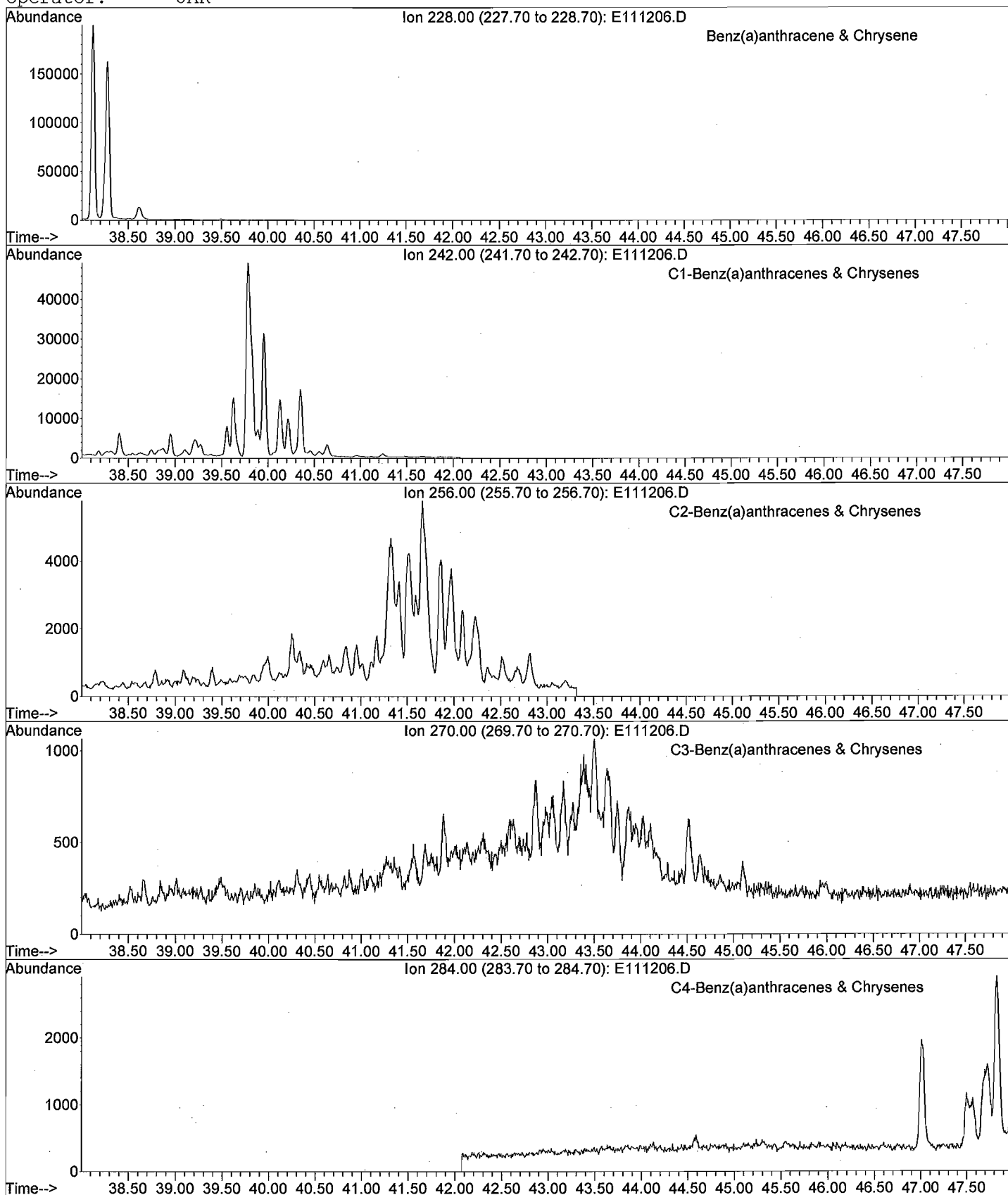
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Misc Info: HISB-112 / TW / Product
Operator: JAR



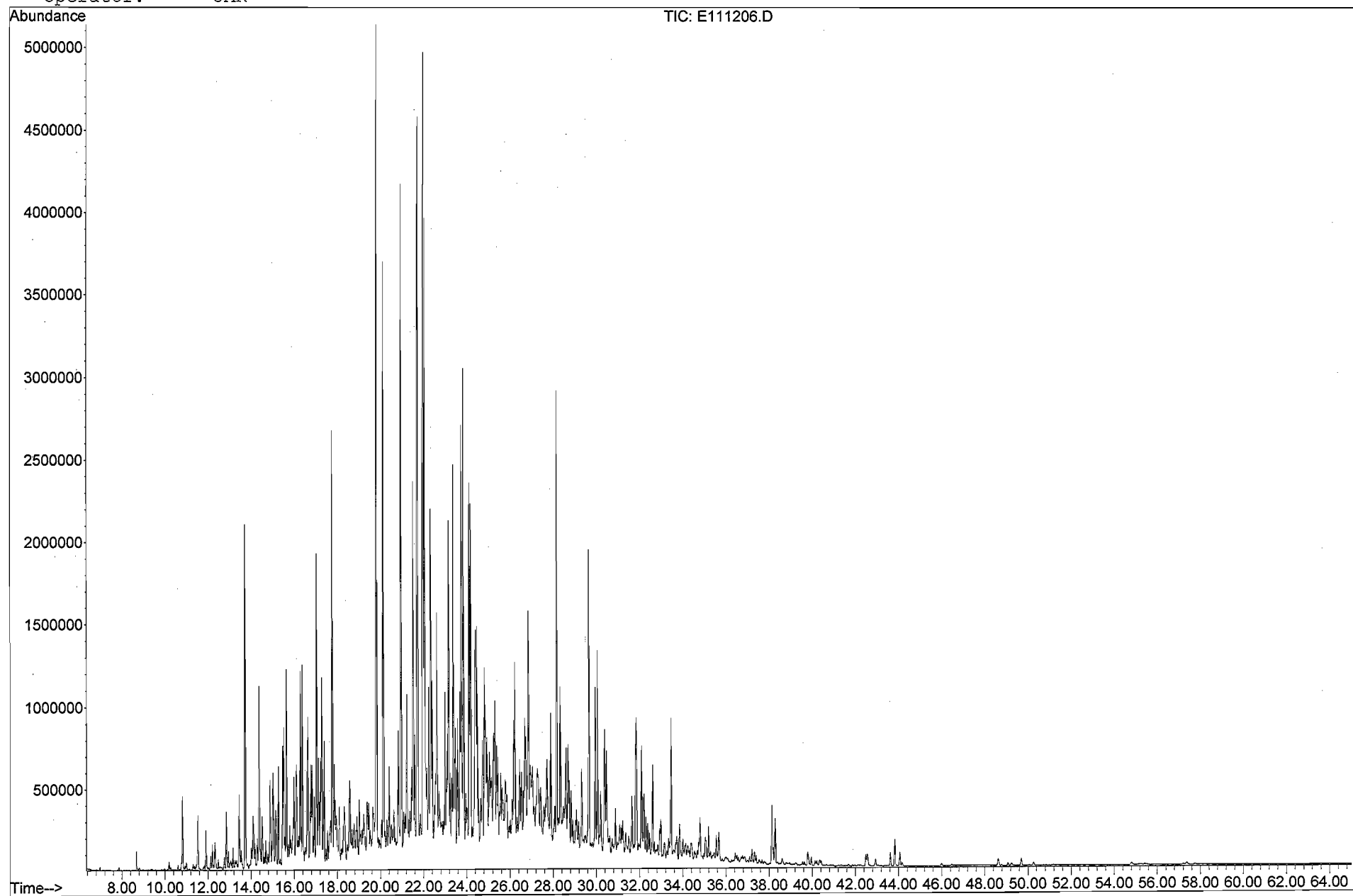
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Misc Info: HISB-112 / TW / Product
Operator: JAR



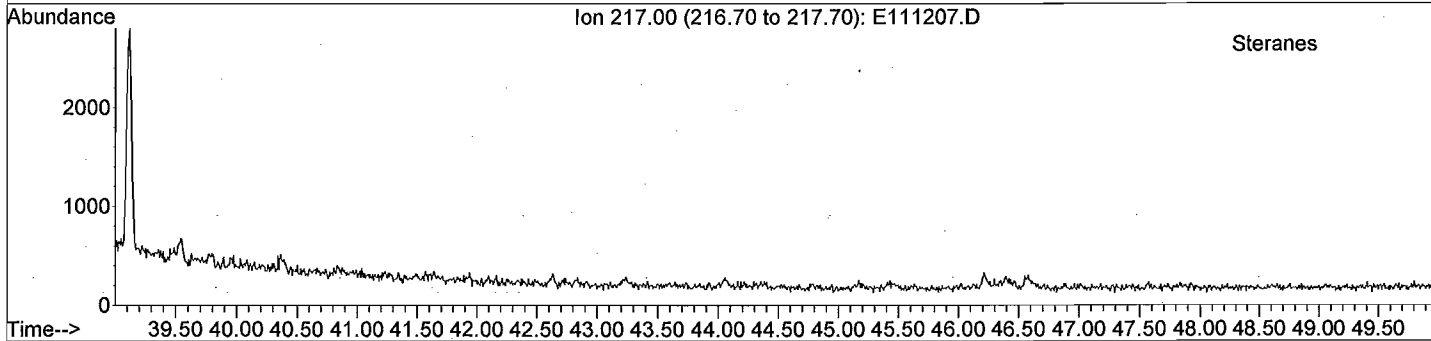
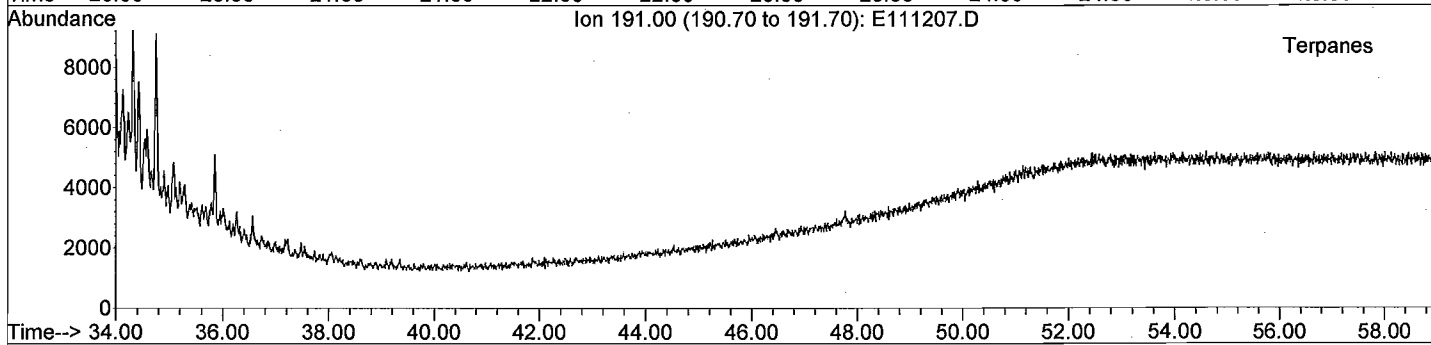
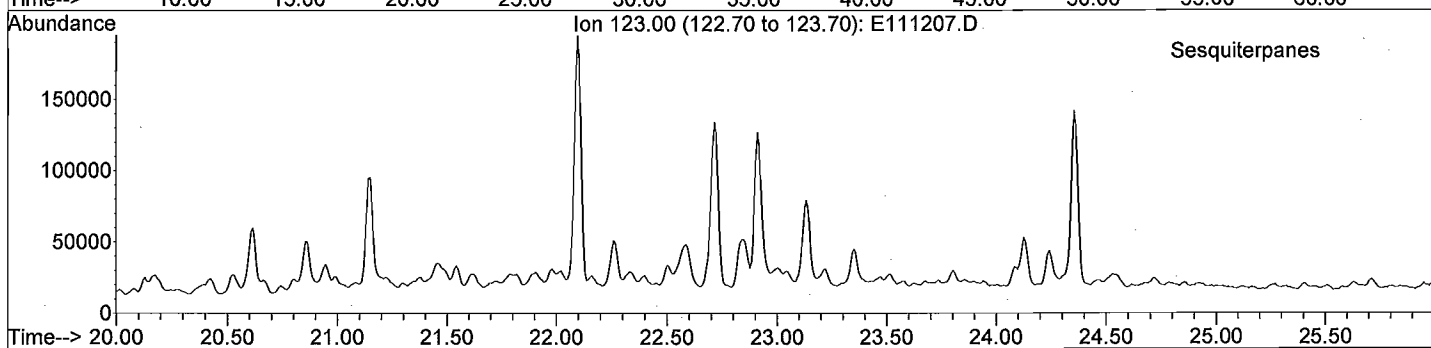
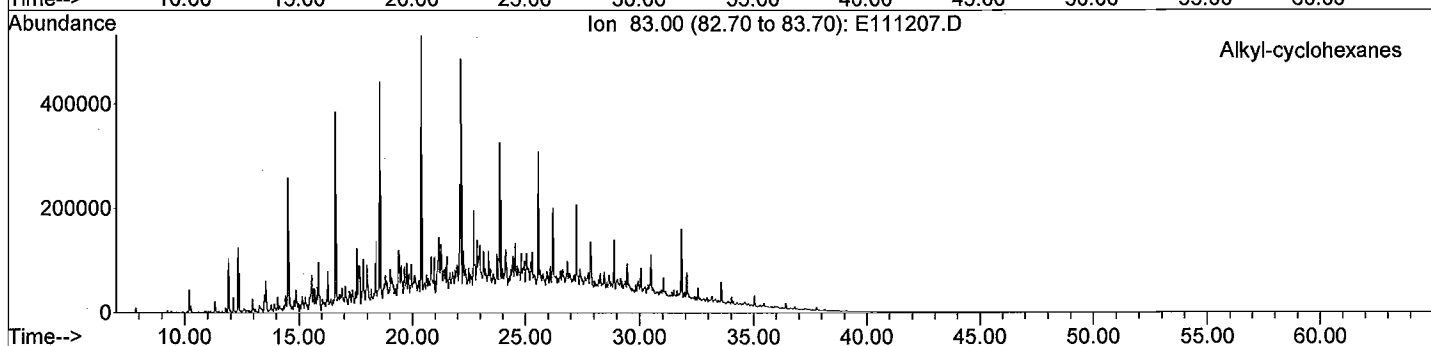
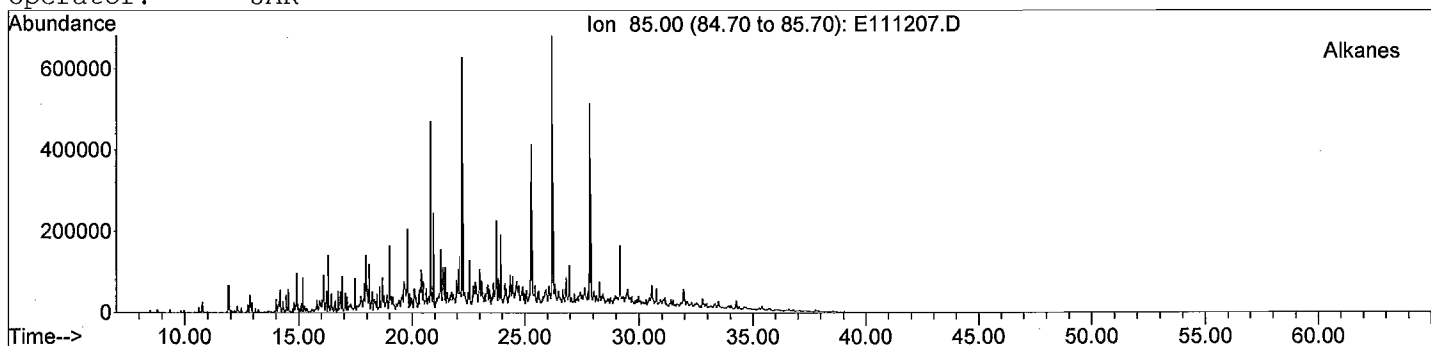
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Sample Name: HC081107-03
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Operator: JAR



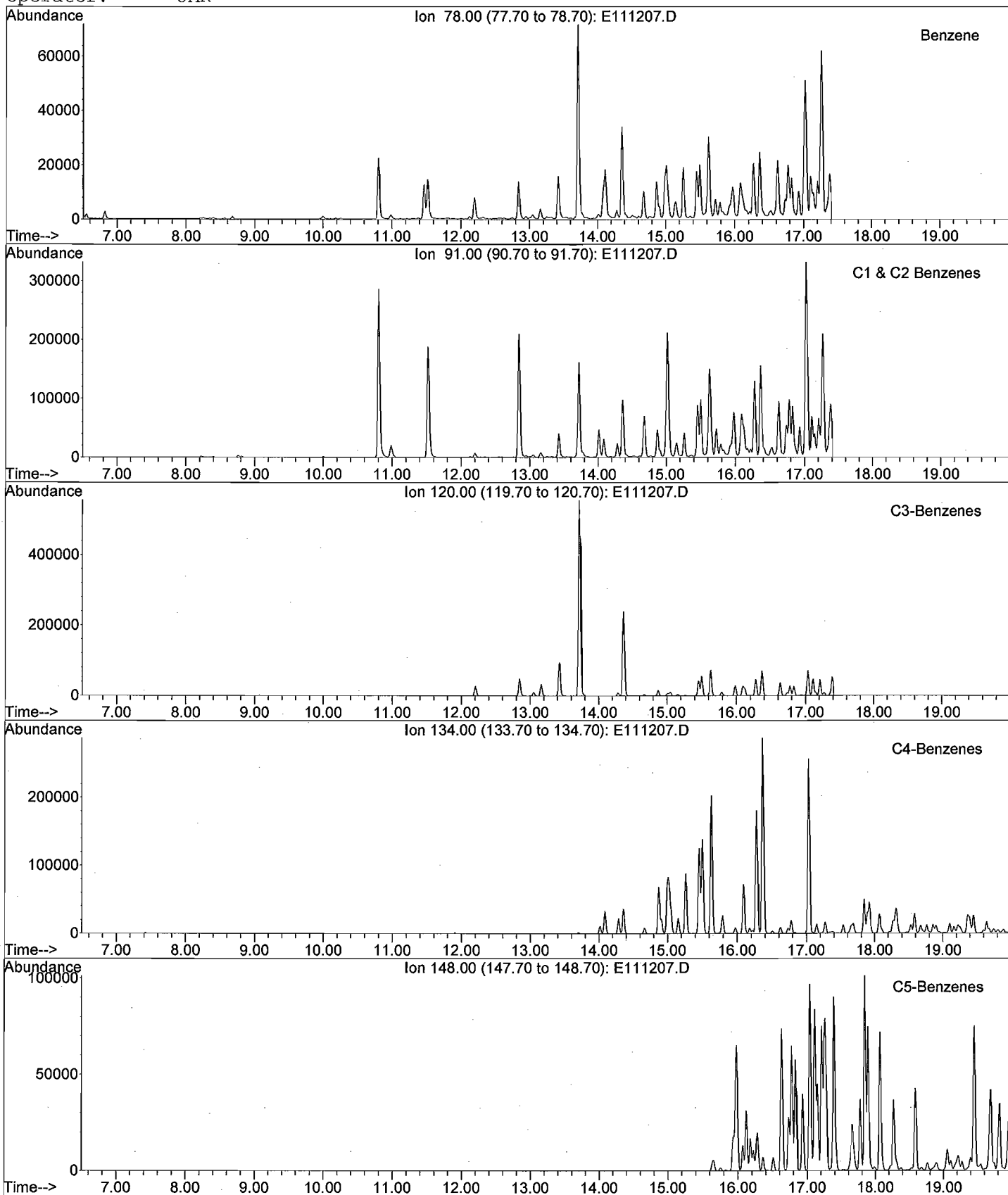
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Date Acquired: 12 Nov 2008 10:43 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



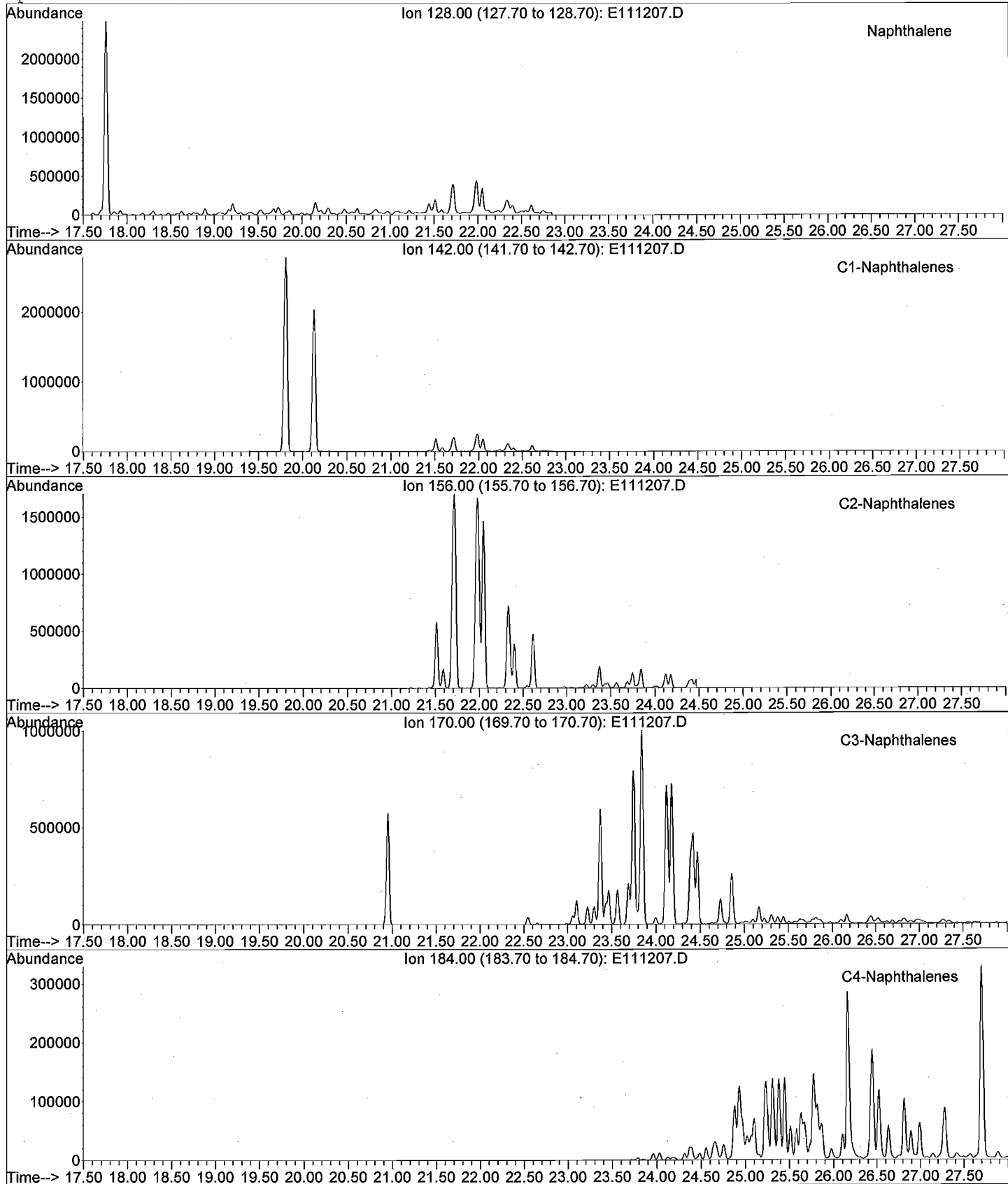
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Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



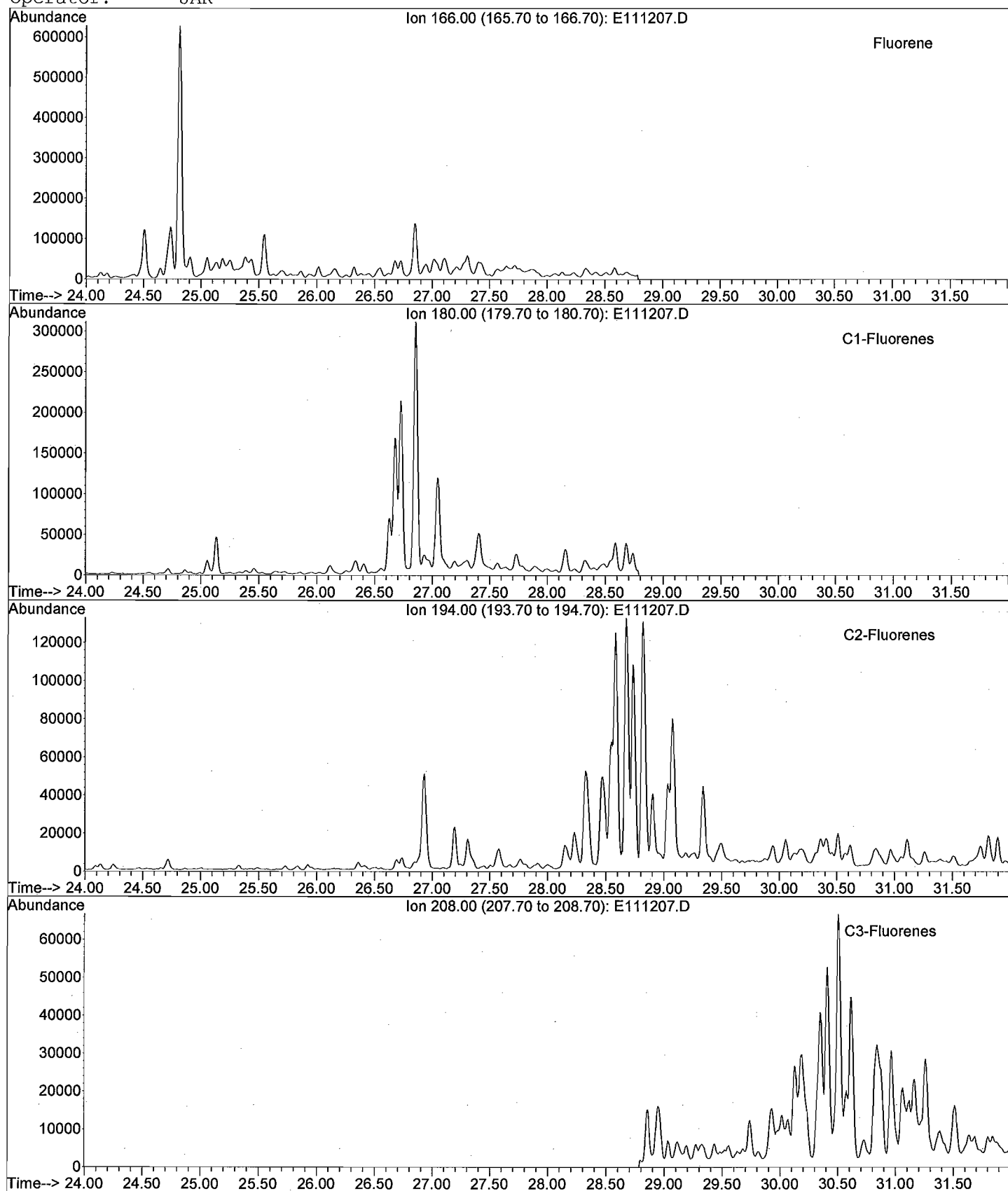
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Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



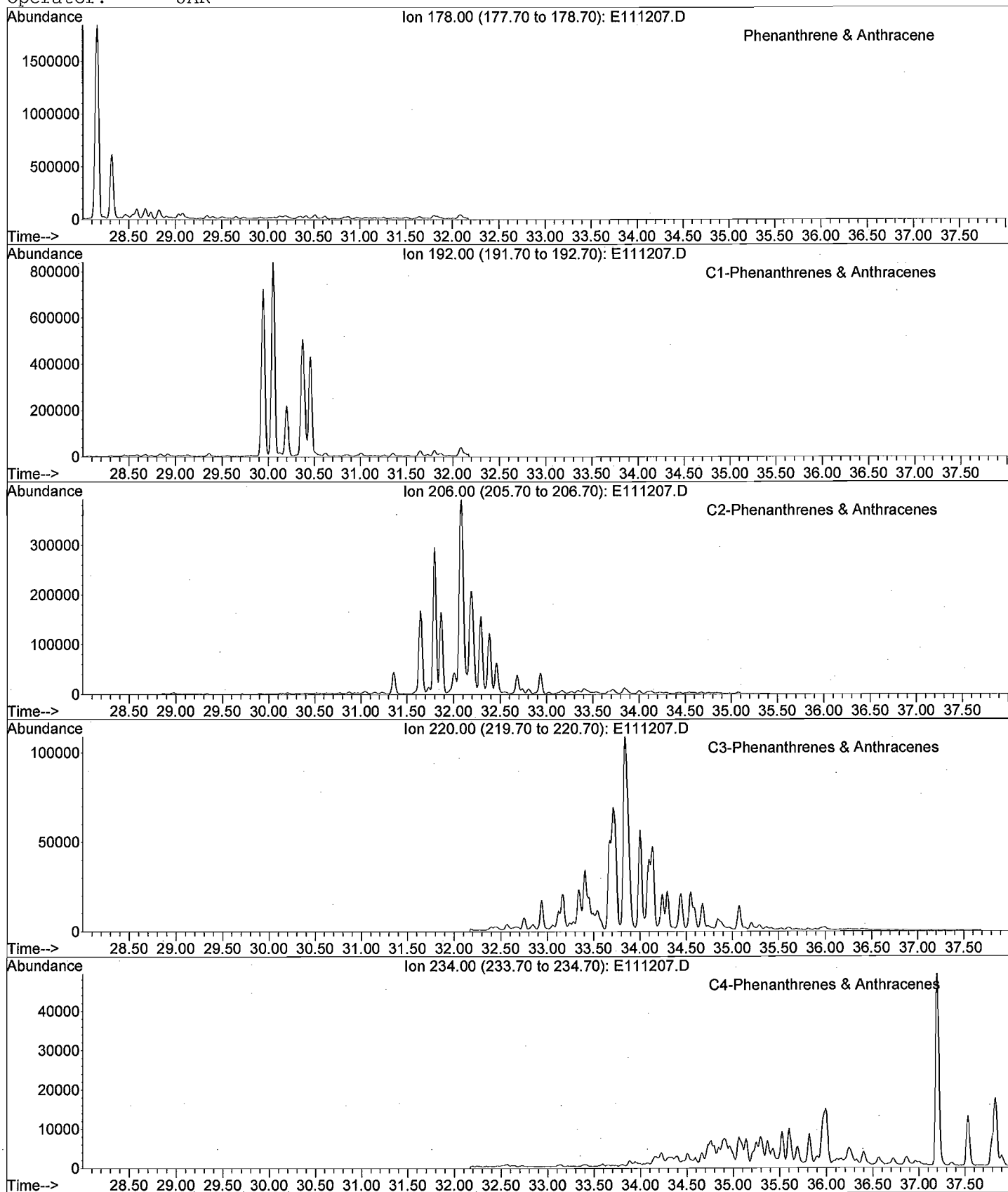
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Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



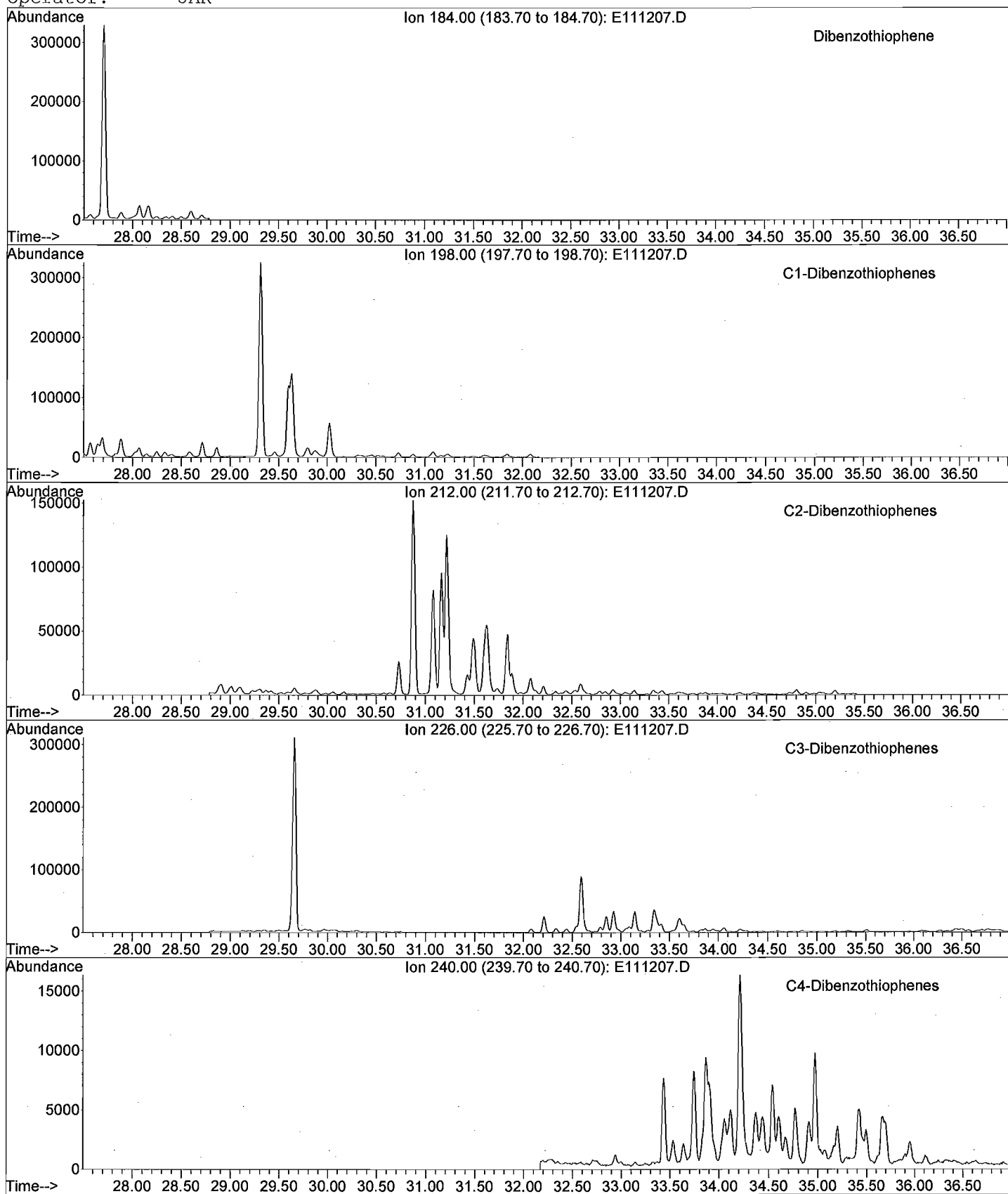
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Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



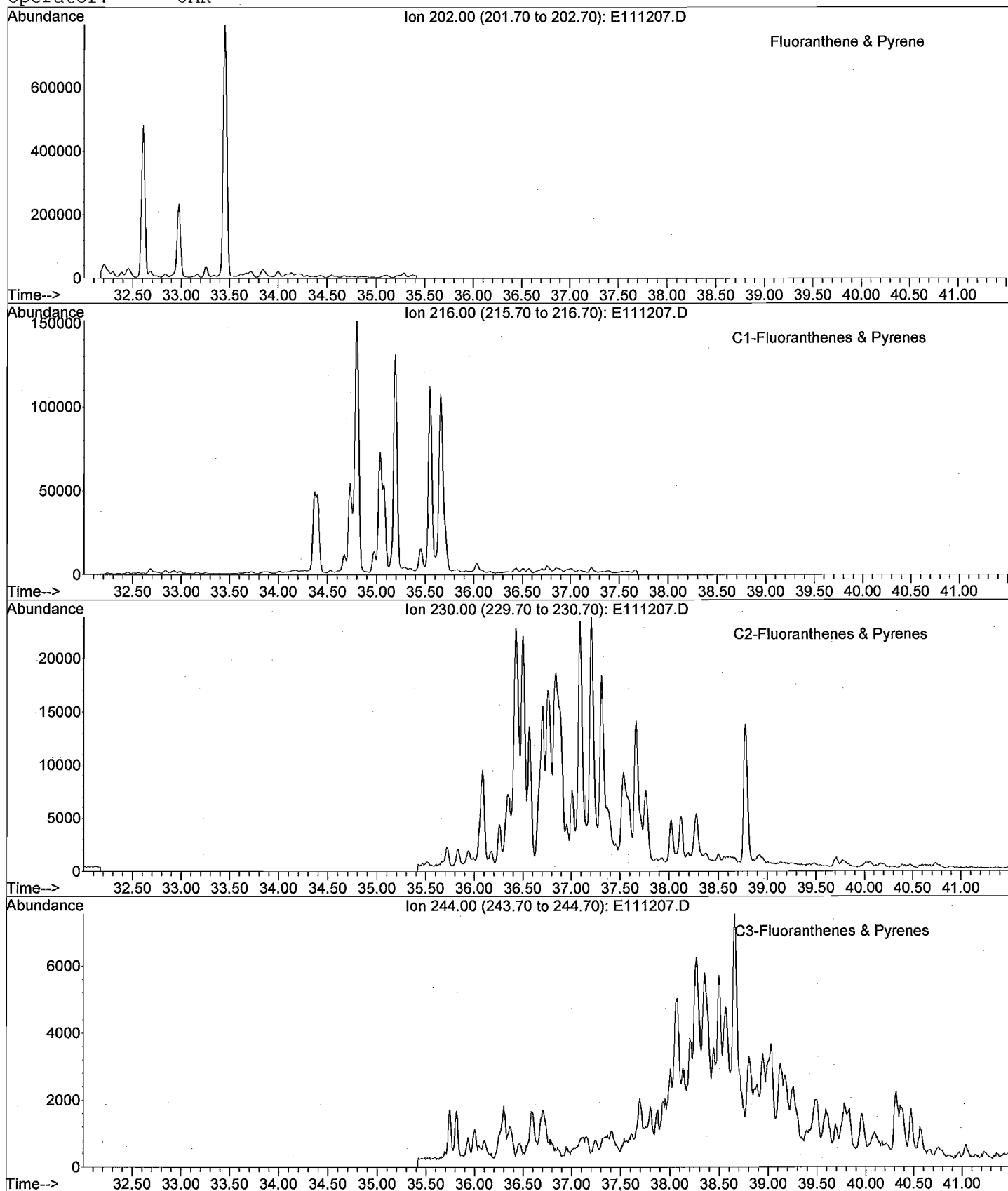
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Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



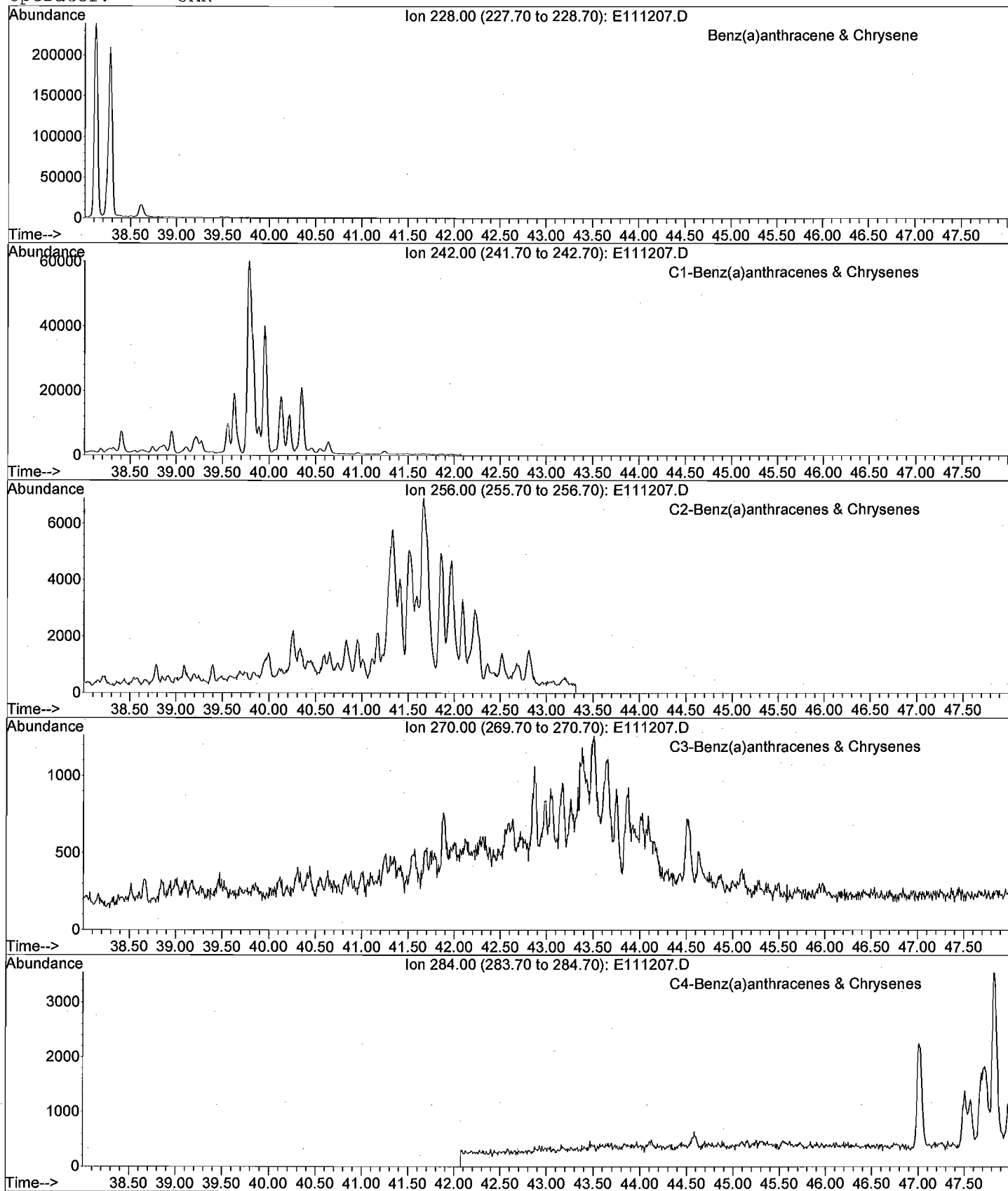
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Sample Name: HC081107-03DUP
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Operator: JAR



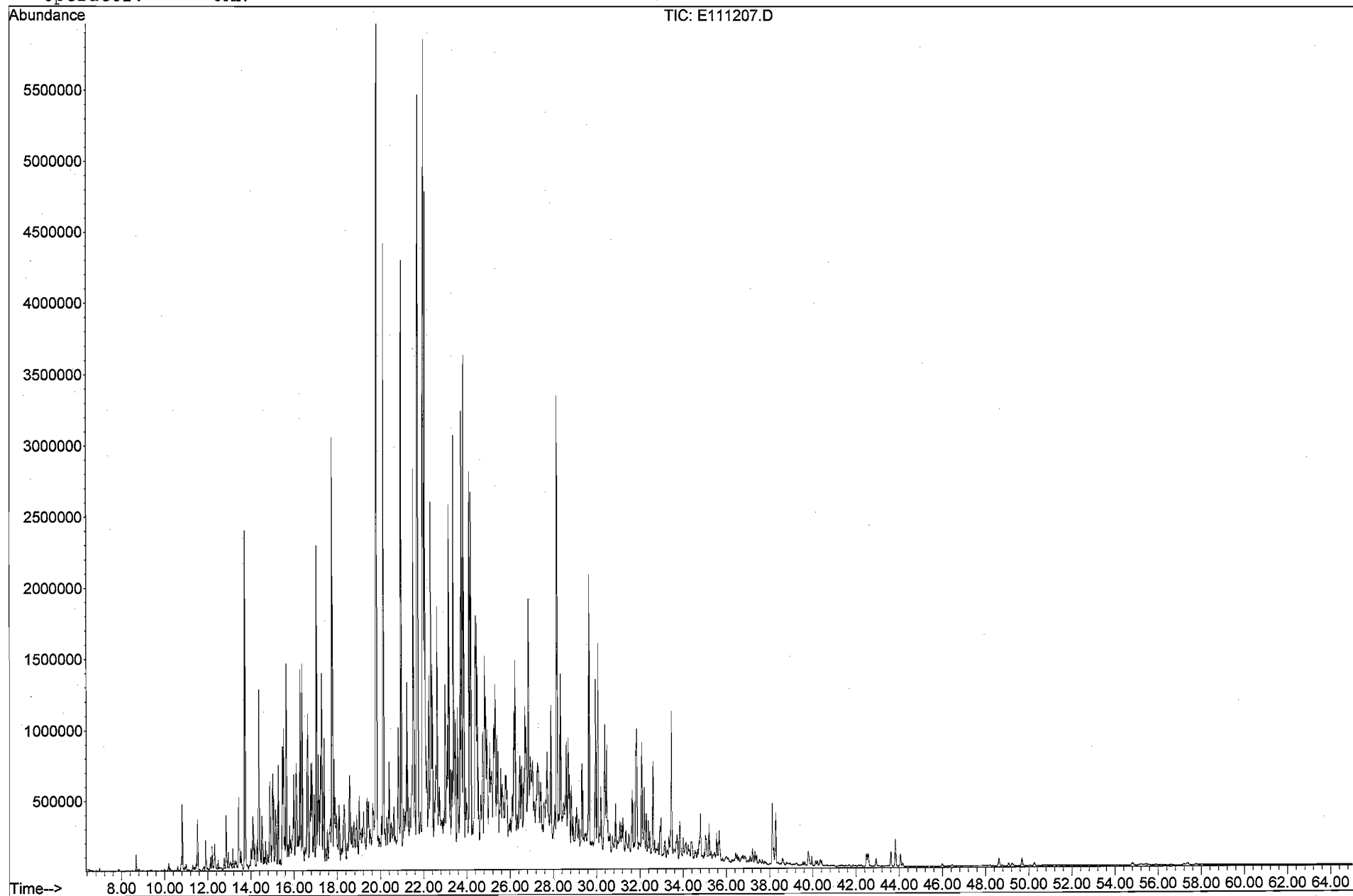
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Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111207.D
Date Acquired: 12 Nov 2008 10:43 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



Appendix F

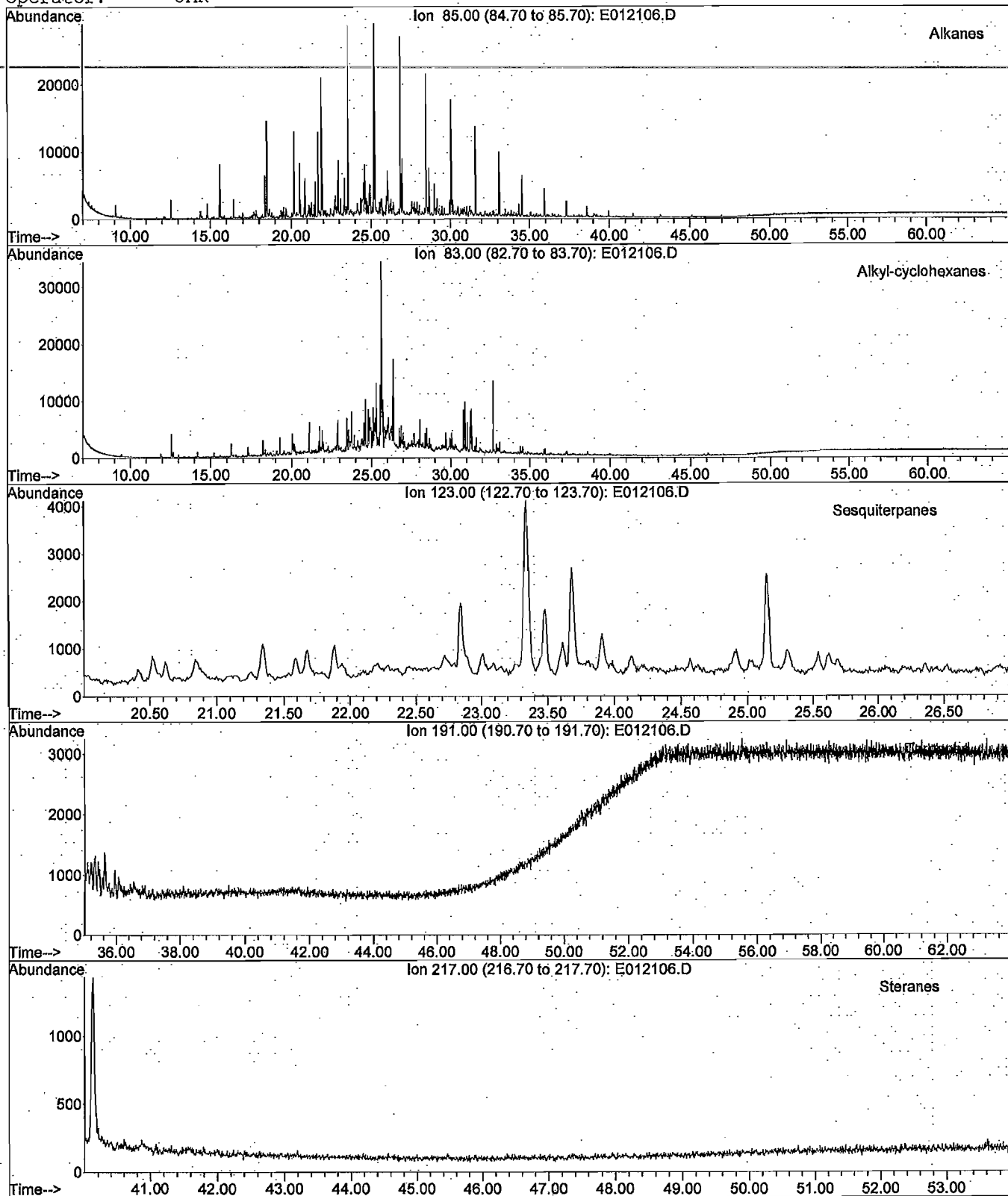
Selected EICPs

META Environmental, Inc.

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Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR

DGP-71

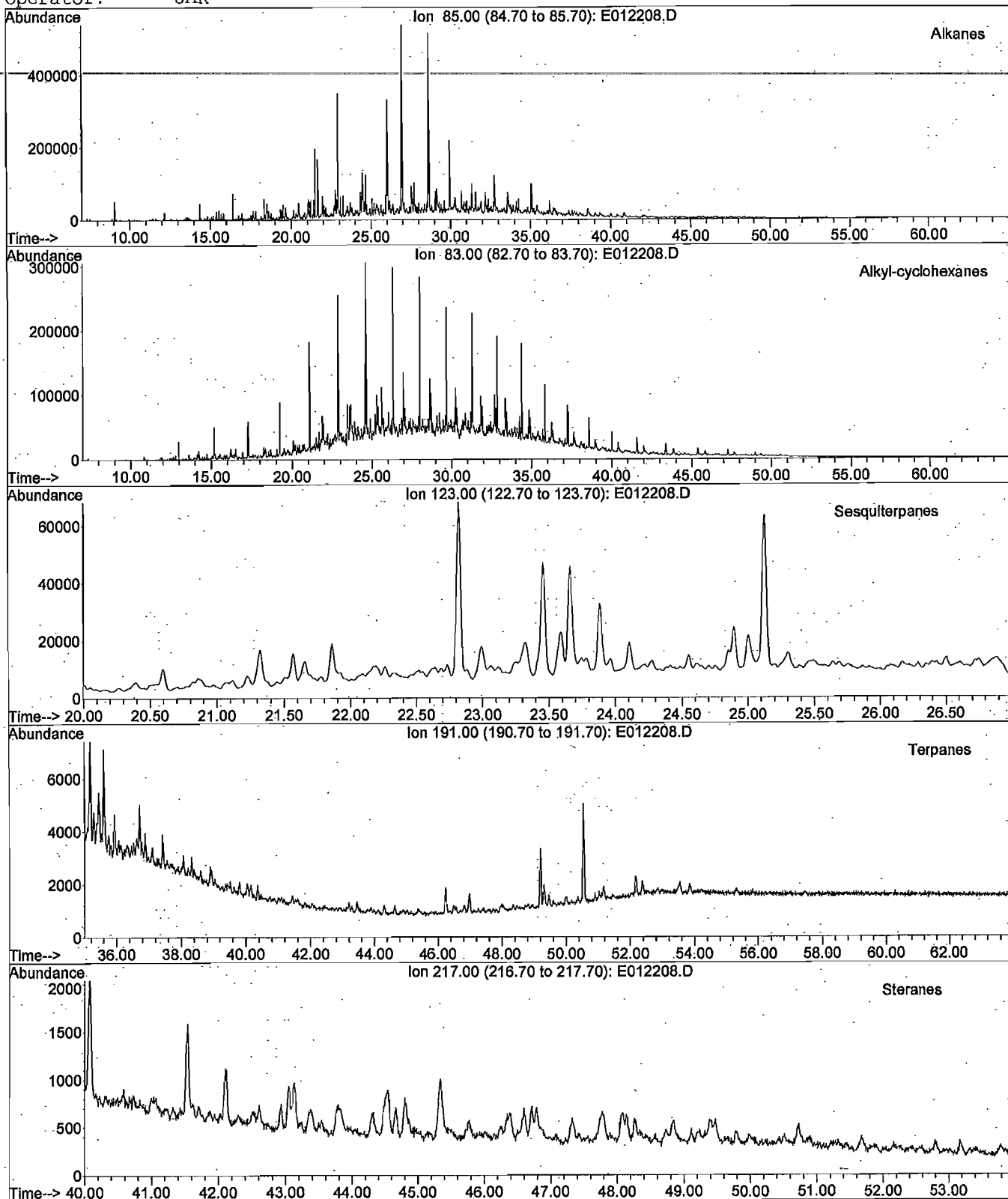


META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080122\E012208.D
Date Acquired: 22 Jan 2008 11:27 pm
Method File: 4008SIMT.M
Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR

HISB-83 (10-15')



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

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Date Acquired: 20 Feb 2008 1:14 am

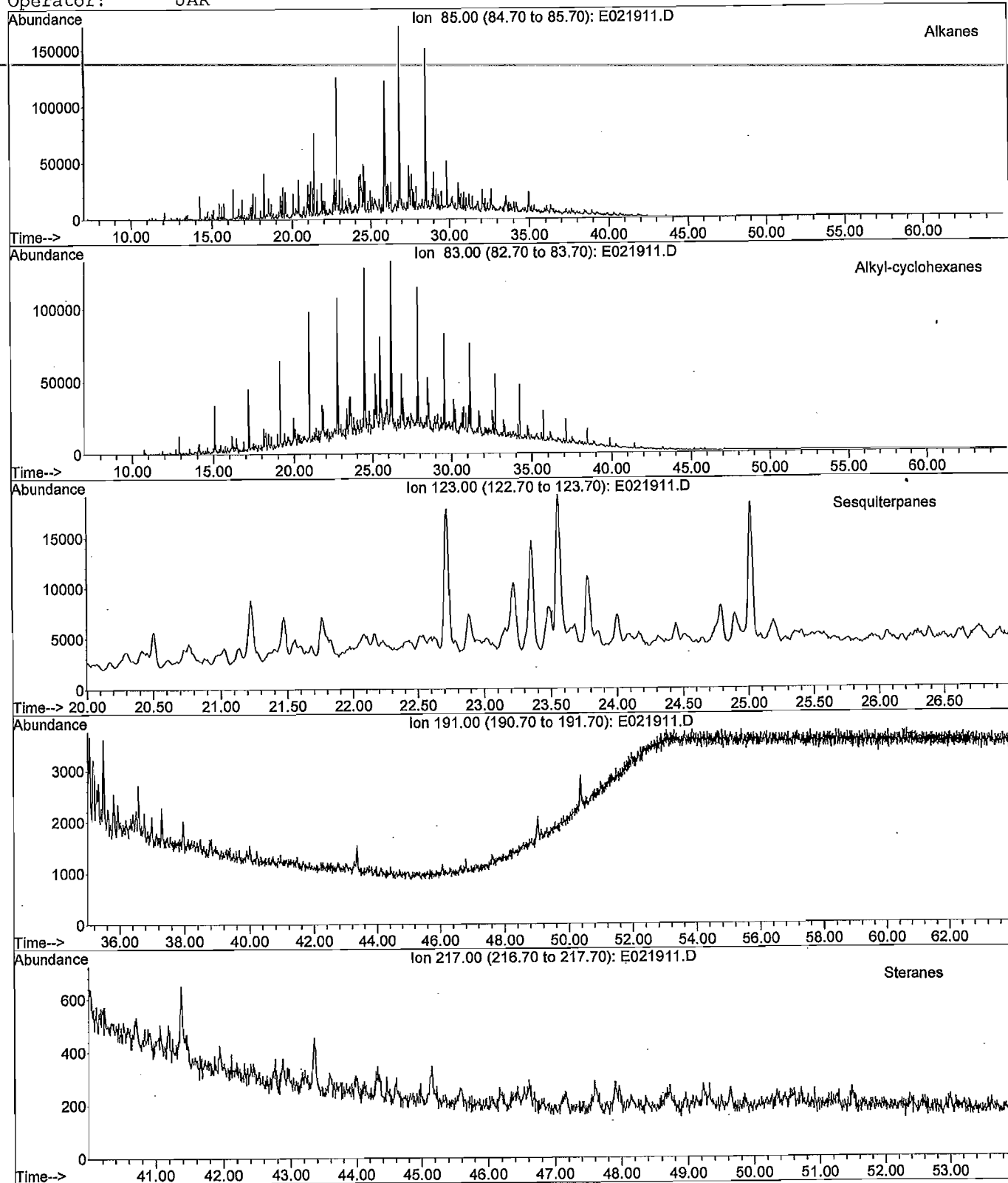
Method File: 4008SMT.M

Sample Name: HC080209-01-D

Misc Info: 0802315-001D - 10X

Operator: JAR

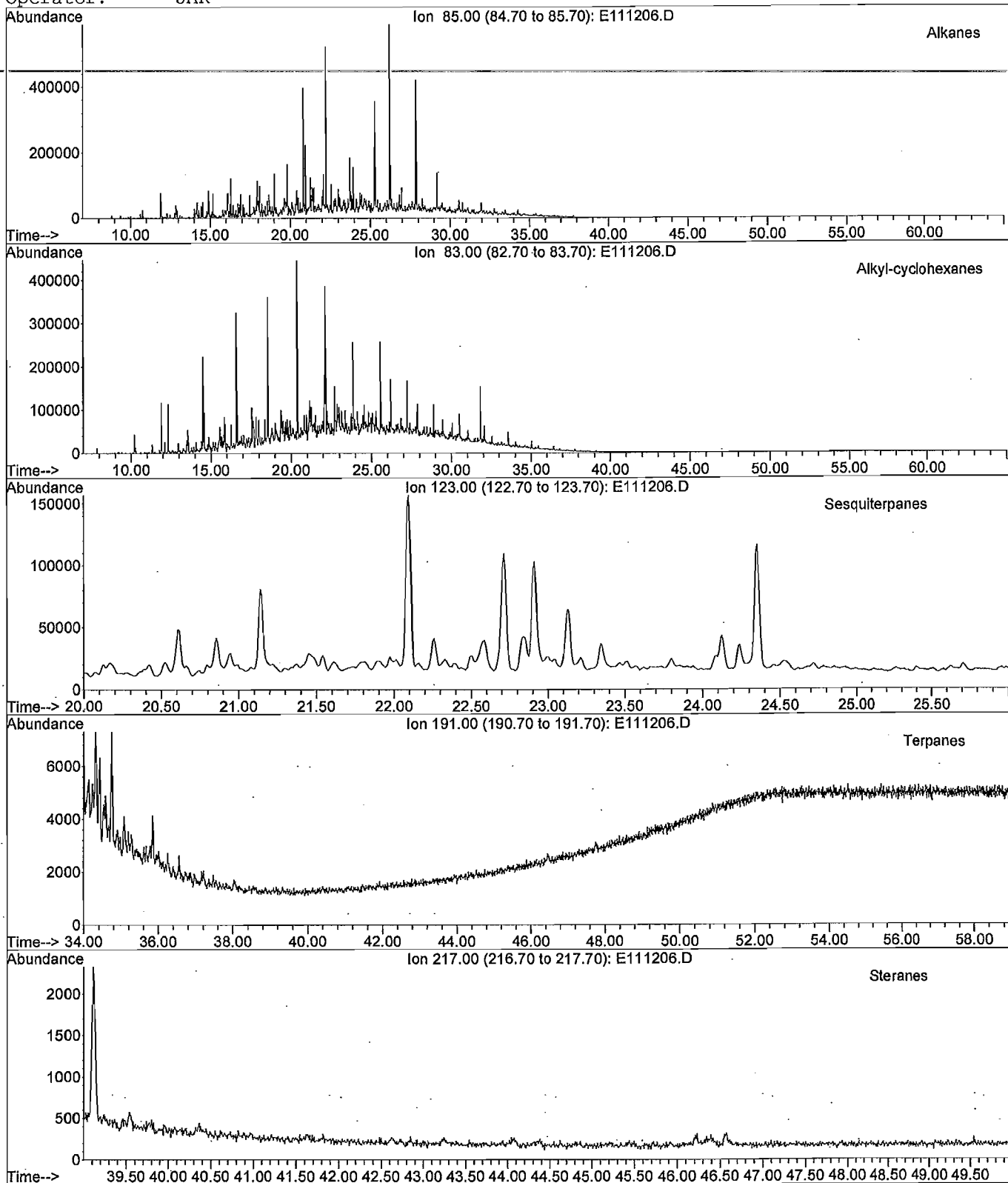
OSMW-2 (20-25')



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

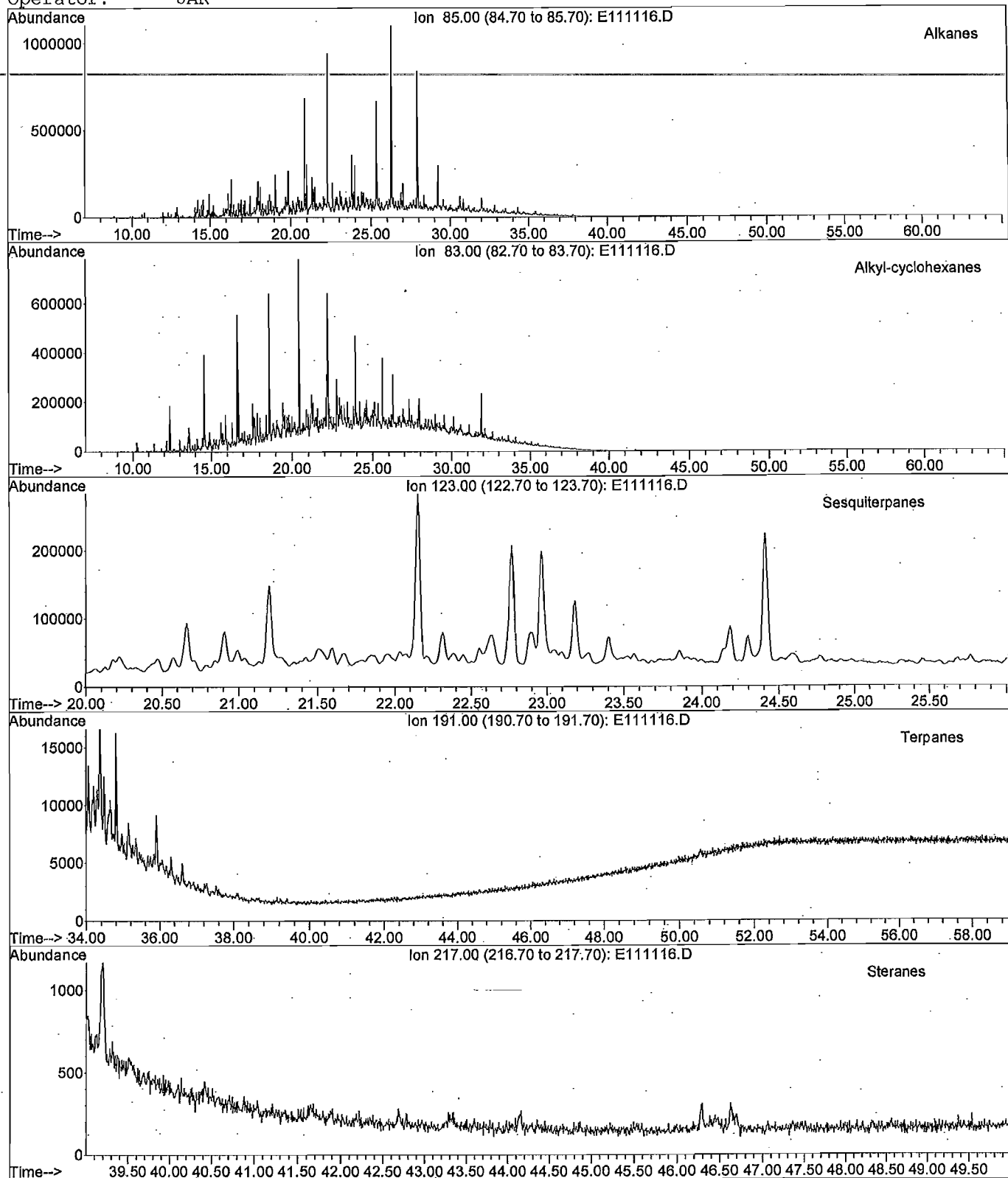
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Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111116.D
Date Acquired: 12 Nov 2008 10:25 am
Method File: 4008SIMD.M
Sample Name: HC081104-09
Misc Info: HISB - 113/25-30
Operator: JAR



Appendix G

Historical Documents

APPENDIX B

FOIL FILE REQUEST DOCUMENTATION

New York State Department of Environmental Conservation
Regional Administration
Building 40 – SUNY, Stony Brook, New York 11790-2356
Telephone (631) 444-0202 Fax (631) 444-0353



Erin M. Crotty
Commissioner

RECEIVED

JAN 22 2004

Darius Sokolowski & Sartor

January 16, 2004

Mr. John Pastorick
67 Mountain Boulevard Extension
Warren, NY 07059

FOIL Reference No.: 03-0884

Dear Mr. Pastorick:

Pursuant to your Freedom of Information Request, we do not have in our files the information you have requested regarding **Mollingaux Brothers Fuel Company, 73 Feally Avenue, Hempstead.**

Sincerely,

Nancy Pinamonti
Freedom of Information

np

New York State Department of Environmental Conservation
Regional Administration
Building 40 – SUNY, Stony Brook, New York 11790-2356
Telephone (631) 444-0202 Fax (631) 444-0353



Erin M. Crotty
Commissioner

January 29, 2004

Mr. John Pastorick
67 Mountain Boulevard
Warren, NY 07059

RECEIVED

FEB 06 2004

FOIL Reference No. : 03-0883

Paulus Sokolowski & Sartor

Dear Mr. Pastorick:

Pursuant to your Freedom of Information request regarding Oswego Oil Corporation, 45 Intersection Street, Hempstead enclosed please find copies of available documents.

The total number of pages copied is **140**. Therefore, please make your check payable to the "New York State Department of Environmental Conservation" in the amount of **\$35.00**, add your request number to it, and remit it to Nancy Pinamonti, at the address above.

If you need anything further, please contact me at the number above.

Sincerely,

Nancy Pinamonti
Freedom of Information

np

COUNTY OF NASSAU, NEW YORK
FIRE MARSHAL

FLAMMABLE/COMBUSTIBLE LIQUID STORAGE TANK REGISTRATION

LOCATION 45 Intersection Street, Hempstead, N.Y.

ISSUED TO: NAME Oswego Oil Service Corp.

ADDRESS 45 Intersection Street, Hempstead, N.Y.

DATE ISSUED: April 6, 1983 REGISTRATION NUMBER OD 72-3

TANK NO.	SIZE	PRODUCT	DATE INSTALLED	DATE TESTED	CONSTRUCTION
1	25,000	Fuel Oil	Over 20 Years	3/31/83	Steel
2	20,000	Fuel Oil	Over 20 Years	3/31/83	Steel
3	20,000	Fuel Oil	Over 20 Years	3/31/83	Steel
4	1,000	Gasoline	Over 20 Years	12/3/82	Steel
5	1,000	Gasoline	Over 20 Years	12/6/82	Steel
6	20,000	Fuel Oil	Over 20 Years	12/3/82	Steel
7	20,000	Kerosene	5/10/74	6/3/82	Steel
8	20,000	Kerosene	5/10/74	5/4/82	Steel
9	9,700	Kerosene	Over 20 Years	5/3/82	Steel

[Signature]
ASSISTANT FIRE MARSHAL

STATUS REPORT

JANUARY 1994

RECEIVED

JAN 13 1994

**REG. 1
OIL SPILLS**

**OSWEGO FUEL OIL
45 INTERSECTION AVENUE
HEMPSTEAD, NEW YORK
SPILL #90-03084**

PREPARED FOR:

**OSWEGO FUEL OIL
45 INTERSECTION AVENUE
HEMPSTEAD, NEW YORK 11550**

PREPARED BY:

**TYREE BROTHERS ENVIRONMENTAL SERVICES, INC.
208 ROUTE 109
FARMINGDALE, NEW YORK 11735**

Member

 **Tyree
Environmental
Technologies**

STATUS REPORT**DECEMBER 1993****OSWEGO OIL TERMINAL
45 INTERSECTION AVENUE
HEMPSTEAD, N. Y. 11550
SPILL #90-03084**

NYSDEC spill #90-03084 was issued to Oswego oil for the spill of approximately thirty (30) gallons of #2 fuel oil spilled by human error and affecting land resources.

This site is an active oil terminal located in Hempstead, New York. Currently there are five (5) 20,000 gallon and one (1) 25,000 gallon underground storage tanks in service. There are also two (2) 20,000 gallon above ground tanks on site. These ~~seven (7)~~ tanks are all piped together and all product is dispensed at the tank fill area. Additionally, there is a 10,000 gallon tank that was abandoned in place as well as two gasoline storage tanks that are not in service. *8 tanks*

All oil that is pumped out of the terminal is pumped through a main tanker fill located on the southeast section of the property (see site map). The only petroleum products currently stored on site are fuel oil and kerosene. The catch basins in the tanker fill area are used to collect runoff and are piped to a distribution box. This distribution box is filled with bondtone. The bondtone will expand if exposed to petroleum products. This will seal off the release of petroleum products to the drywell and divert it to the 4,000 gallon tank to the south of the tanker fill area thus preventing any release of production the drywell. This system is permitted and tested regularly by the DEC (NY0206342) and has been in compliance.

Member

 **Tyree
Environmental
Technologies**

In the past, anomolous levels of contaminants detected through laboratory analysis of the upgradient wells promoted petroleum product ID analysis at regular intervals. The results of this has indicated that there is an upgradient source of contamination that the Oswego Oil monitoring wells are detecting. The two possible sources are the Hempstead Gas Plant site, located just north of Oswego Oil, and Mollineaux Brothers Fuel Oil, Inc., located to the west of Oswego Oil.

The Hempstead Gas Plant (HGP):

On June 9, 1981 the Long Island Lighting Company (LILCO), the current owners of the Hempstead Gas Plant contacted the United States Environmental Protection Agency in compliance to the CERCLA laws of 1980. At the time, LILCO notified the EPA that it believed that the sites did not come under CERCLIS or RCRA jurisdiction. On January 9, 1989, the USEPA added the Hempstead Gas Plant to the CERCLIS list (EPA ID#NYD986881829).

A final draft for the preliminary site assessment (PA) indicated a potential for soil contamination through facility process operations and an ash pit. The area of potentially contaminated soil includes the entire 7.56 acre site.

A list of the potential contaminants associated with the Hempstead Gas Plant include benzene, toluene, xylenes, phenols, pyrenes, and other organic compounds also found in heating oils.

The preliminary assessment also concluded that there is a potential for contaminant migration since the site has been demolished and there may be broken piping and the site is uncovered, and uncontained. The report also states that there is a potential for contaminants from the former waste units to migrate to groundwater. This is based on the absence of containment throughout the site.

The Hempstead Gas Plant (HGP) was constructed on the parcel of land just north of Oswego Oil. The HGP began product in 1859 and utilized the carburetor water process to produce gas. The plant ceased production in 1951, with a total operating life of eighty-seven (87) years.

Member

Carburetoed water gas is the water gas process enriched with a thermally cracked hydrocarbon such as oil, natural or liquified petroleum gas. The hydrocarbons were added in a super heater/carburetor which was usually a checkered brick oven. The by products of the carburetoed water gas reaction were ash, clinker, tar, pitch and light oil.

Ash, the residue remaining from the burning of off and hard coals, was generated in the steam producing portion of all gas plants up to about 1945, when the boilers were converted for liquid fuels. Since the HGP was in operation since 1859, it is assumed that the plant generated ash. An individual study on coal ash conducted by Oak Ridge National Laboratory exhibited individual hydrocarbon concentrations ranging from 66-816 parts per billion (ppb). The method of ash management at the HGP is unknown. If ash was stored on the native soils, then the ash storage area may be a possible point source of hydrocarbons into the groundwater.

Clinker was the residue remaining from the coke used in the water gas and carburetoed water gas operations. Clinker has the appearance of a rough stony material and was often carted away to landfills. If this clinker was disposed of on the HGP property, this may also be a source of contamination.

An iron oxide sponge was used in all gas plants for the removal of hydrogen sulfides from the manufactured gas stream. The sponge was normal regenerated with air to reactivate the material but a significant amount of iron coated wood chips were generated. This filter media may have intercepted hydrocarbons from the carburetoed water gas manufacturing operations. If the spent oxides were stored on native soils, a possible soil and/or groundwater contamination problem may exist.

Tar was also a bi-product of the gas manufacturing process. The tar was removed from the manufactured gas stream usually as an emulsion with water. It was initially stored in tar wells or containment tanks where the tar was removed. The water by product of this process probably contained high dissolved levels of volatile organic aromatics. The method of disposal of this waste water is unknown but may have been through injection wells. If this is the case, then there may be attributable soil and/or groundwater contamination beneath this site.

Member

Pitch or tar heavies have been generated by the HGP. In later years, the tar was processed for the paving purposes. This by-product was also sold for the manufacture of electrodes. The storage and disposal of the pitch at the HGP is unknown, so there is a potential of environmental contamination.

Drip oils or light oil residues were by-products from the carburation process. The oils were removed from the gas stream by using condensers and precipitators. Water and oils were collected and the water was separated from the oils. The collected oils were reused or sold. The discharge point of the water was unknown, but may have entered the soil through an injection well system. If this is the case, the contaminated soils and/or groundwater may be on site. Groundwater flow is toward Oswego Oil.

The other potential area for cross contamination is NYSDEC spill #87-07262, approximately 35 feet west of the Oswego monthly well #2.

Mollineaux Brothers, Inc.

NYSDEC spill #87-07262 was issued to Mollineaux Brothers, Inc. a retail distributor of home heating oils. This particular spill number was issued for a loss of 50 gallons of heating oil and affecting land resources.

It should be noted that the Mollineaux site is currently undergoing significant construction activity and soil tank removals. It should also be noted that the site is currently a gravel and dirt base, with fuel dispensing equipment and used heating oil tanks scattered about. There is a possibility that there may have been an undocumented release of hydrocarbons since the fueling equipment and tanks are unprotected on a public accessway (Sealy Avenue).

There are ten other upgradient sites that have released hydrocarbon to either land or groundwater with one-half mile of the Oswego Oil terminal (see spill list).

Member



Tyree
Environmental
Technologies

Oswego Oil Terminal - Overall Progress:

Tyree Brothers Environmental Services, Inc. started monitoring and bailing activities in October of 1990, in response to a leaking valve on a four (4) inch pipeline running along the northwest property line, approximately halfway between the two 20 thousand gallon UST's and the two 20 thousand gallon AST's. The soils beneath the valve were removed prior to the commencement of monitoring and bailing activities.

Monitoring and bailing efforts since 1990 have recovered a total of two (2) gallons of product from the five monitoring wells. The quarterly (semi-annual) sampling activities have determined that there are unknown hydrocarbons in the upgradient wells early in this investigation. The concentrations have become more dispersed with later sampling events, leading to non-detect levels in the quarterly samplings.

The analysis trends of volatile organic aromatic compounds is complex. There is an overall decrease in VOA's in monitoring wells #1, 3, 4 and 5. Well #2 which is closest to the Mollineaux facility has had an increase in VOA's with time.

Depth to water for each well was recorded on October 4, 1993 using a sonic interface probe. No free-phase petroleum product was observed during the monitoring. Tabulated monitoring data is included in this report.

SUMMARY:

1. There are eleven (11) upgradient active NYSDEC spill sites within one-half mile of Oswego Oil. One site is directly to the west of Oswego Oil and may be impacting the groundwater beneath the Oswego facility.
2. There is one (1) 7.8 acre CERCLIS site immediately upgradient of the subject site. The Hempstead Gas Plant has confirmed soil contamination. The site does have groundwater monitoring wells.
3. There has been no free floating petroleum product in any of the wells for more than a year.

Member

4. Closure of this spill is requested for the following reasons:

- a. The 30 gallons of fuel oil that had leaked out of the valve were remediated by soil excavation and bailing activities.
- b. High dissolved levels have remained even after there was no floating product remaining. Upgradient wells periodically showed the highest BTEX concentrations. BTEX levels in the westernmost well closest to Mollineaux are increasing with time.
- c. An upgradient plume is possibly emanating from the Hempstead Gas Plant which will make the NYSDEC cleanup goals unachievable for the groundwater beneath Oswego, since it extends under their property. The increasing dissolved levels in the western wells may be attributable to numerous undocumented spills on Sealy Avenue, associated with the Mollineau facility.
- d. Oswego Oil has remained in compliance with the requirements mandated by the NYSDEC for this spill and for its spill protection permit. Oswego will continue to utilize the on-site monitoring wells after this spill file is closed to insure that there are no more free product releases on to the groundwater on site.

Member

Table 1: NYSDEC Spill Log Information

UPGRADIENT SPILLS WITHIN VICINITY OF OSWEGO OIL CORPORATION, 45 INTERSECTION AVE, HEMPSTEAD, NEW YORK

SPILL NUMBER	MATERIAL CLASS	CNTY	NAME ADDRESS	CAUSE	RESOURCE	ACTIVE (A) CLOSED (C)
91-03570	HAZ MATERIAL	UNKNOWN	625 SOUTH STREET	DELIBERATE	GROUNDWATER	ACTIVE
90-02695	GASOLINE	UNKNOWN	37 CATHEDRAL AVENUE	TANK TEST FAILURE	LAND	ACTIVE
90-04663	#2 FUEL OIL	UNKNOWN	1140 FRANKLIN AVENUE	TANK TEST FAILURE	GROUNDWATER	ACTIVE
90-09641	#4 FUEL OIL	UNKNOWN	22 HAMILTON PALCE	TANK TEST FAILURE	LAND	ACTIVE
90-11027	GASOLINE	UNKNOWN	1300 FRANKLIN AVENUE	TANK TEST FAILURE	GROUNDWATER	ACTIVE
86-06650	GASOLINE	UNKNOWN	NEW YORK TELEPHONE	TANK FAILURE	GROUNDWATER	ACTIVE
87-00281	GASOLINE	UNKNOWN	CHERRY VALLEY ROAD	TANK FAILURE	GROUNDWATER	ACTIVE
86-08055	#2 FUEL OIL	UNKNOWN	GARDEN CITY MAINT CTR, CHERRY AVENUE	TANK FAILURE	GROUNDWATER	ACTIVE
91-00472	#4 FUEL OIL	UNKNOWN	CATHEDRAL AVENUE	HUMAN ERROR	LAND	ACTIVE
90-03084	#2 FUEL OIL	30 GALLONS	45 INTERSECTION AVENUE	HUMAN ERROR	LAND	ACTIVE
87-07262	#2 FUEL OIL	50 GALLONS	INTERSECTION STREET & SEALY AVENUE	UNKNOWN	LAND	ACTIVE
88-02361	#2 FUEL OIL	UNKNOWN	20 WENDEL TERRACE (NON COM-INST)	TANK TEST FAILURE	GROUNDWATER	ACTIVE

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PROJECT GRID

[illegible]

John Rhodes

PRESIDENT

Oswego Oil Service Corp.

45 INTERSECTION STREET
HEMPSTEAD, N. Y. 11650
516 486-3900

THE
SEAR-BROWN
GROUP

Calculations:

Project: *Oswayo Oil*
Hempstead N.Y.
Ground Water Contours

Project No.

Date

by

sh

of

Date of Readings: *12-1-92*

Datum for Elevations: *Assumed.*

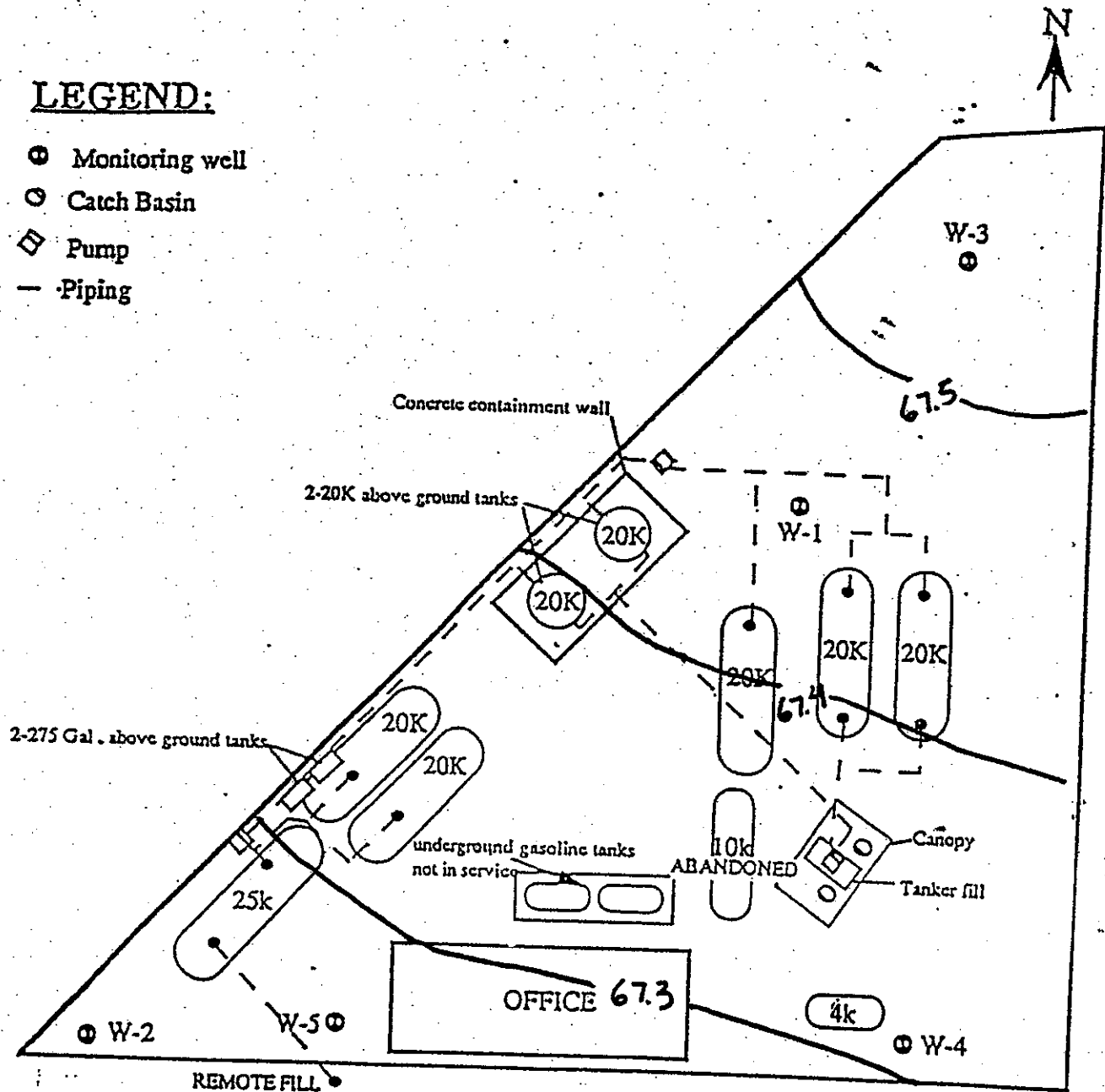
LEGEND:

⊙ Monitoring well

○ Catch Basin

◇ Pump

— Piping



INTERSECTION STREET

THE
SEAR-BROWN
GROUP

Calculations:

Project: *Oswego Oil
Hempstead N.Y.
Ground Water Contours*

Project No.

Date

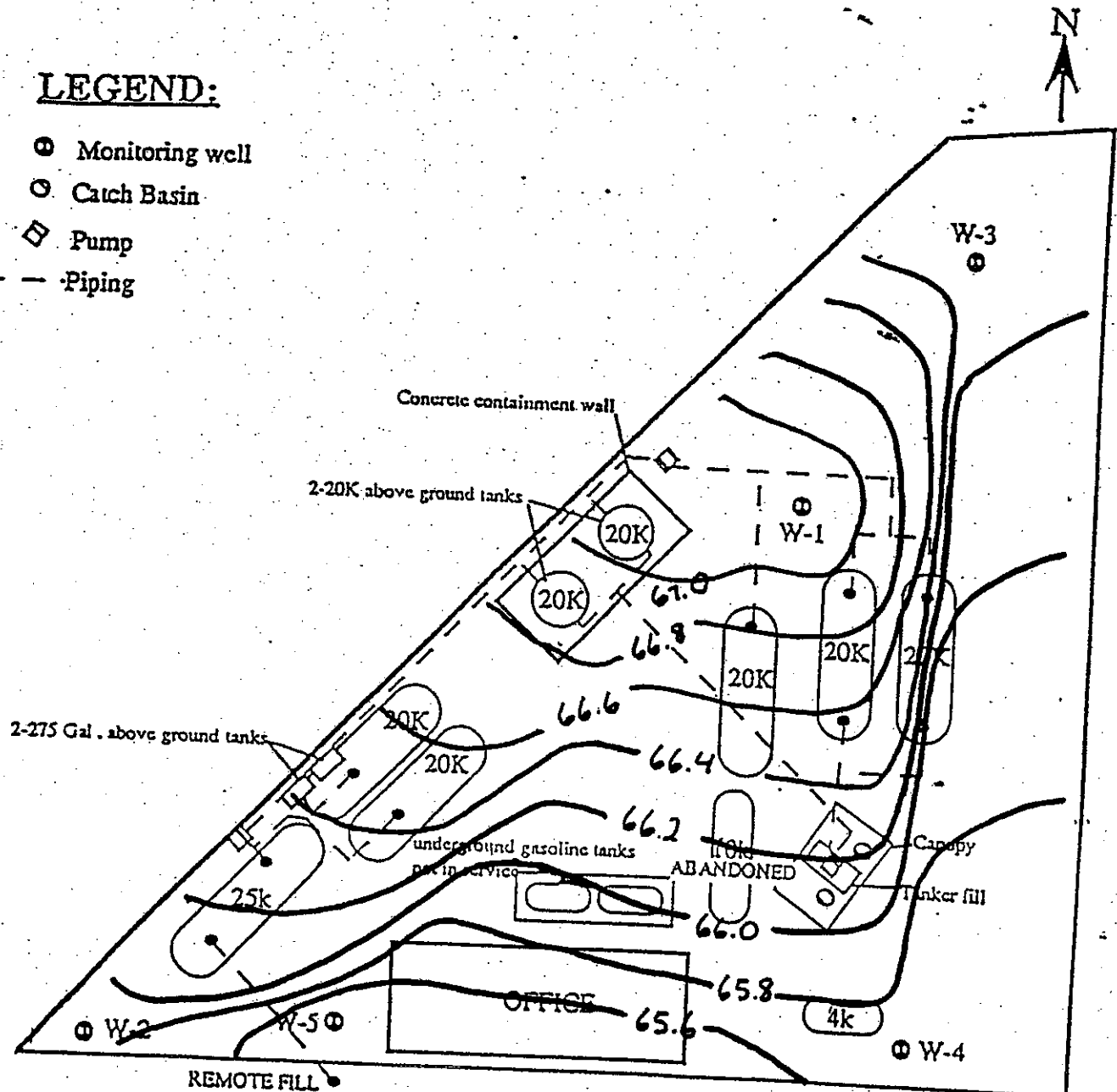
by

sh of

Date of Readings: *11-3-92 2nd Test*
Datum for Elevations: *Assumed.*

LEGEND:

- ⊕ Monitoring well
- Catch Basin
- ◇ Pump
- Piping



INTERSECTION STREET

THE
SEAR-BROWN
GROUP

Calculations:

Project: *Oswego Oil
Hempstead N.Y.
Ground Water Contours*

Project No.

Date

by

of

Date of Readings: *10-1-92*
Datum for Elevations: *Assumed.*

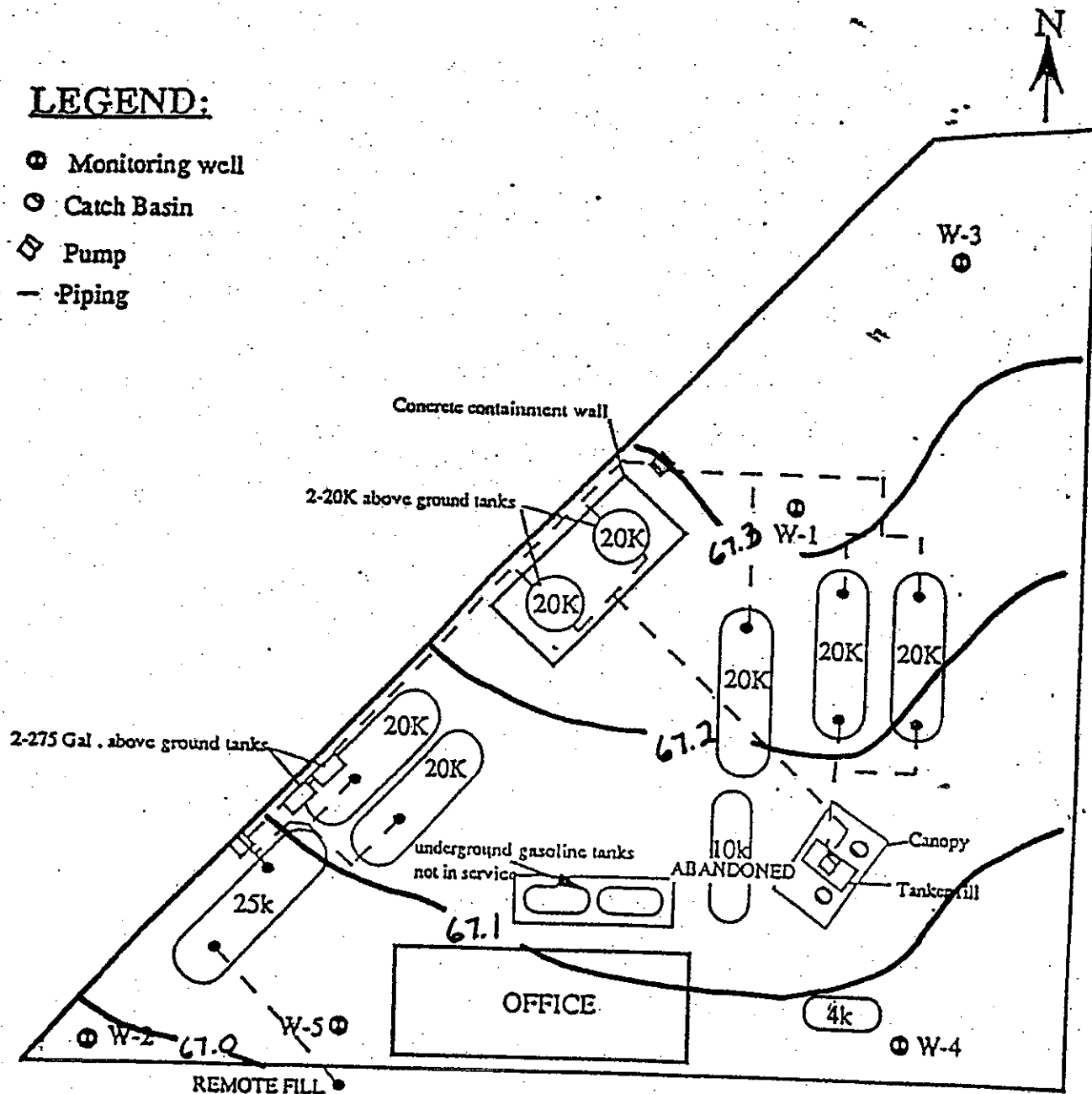
LEGEND:

⊙ Monitoring well

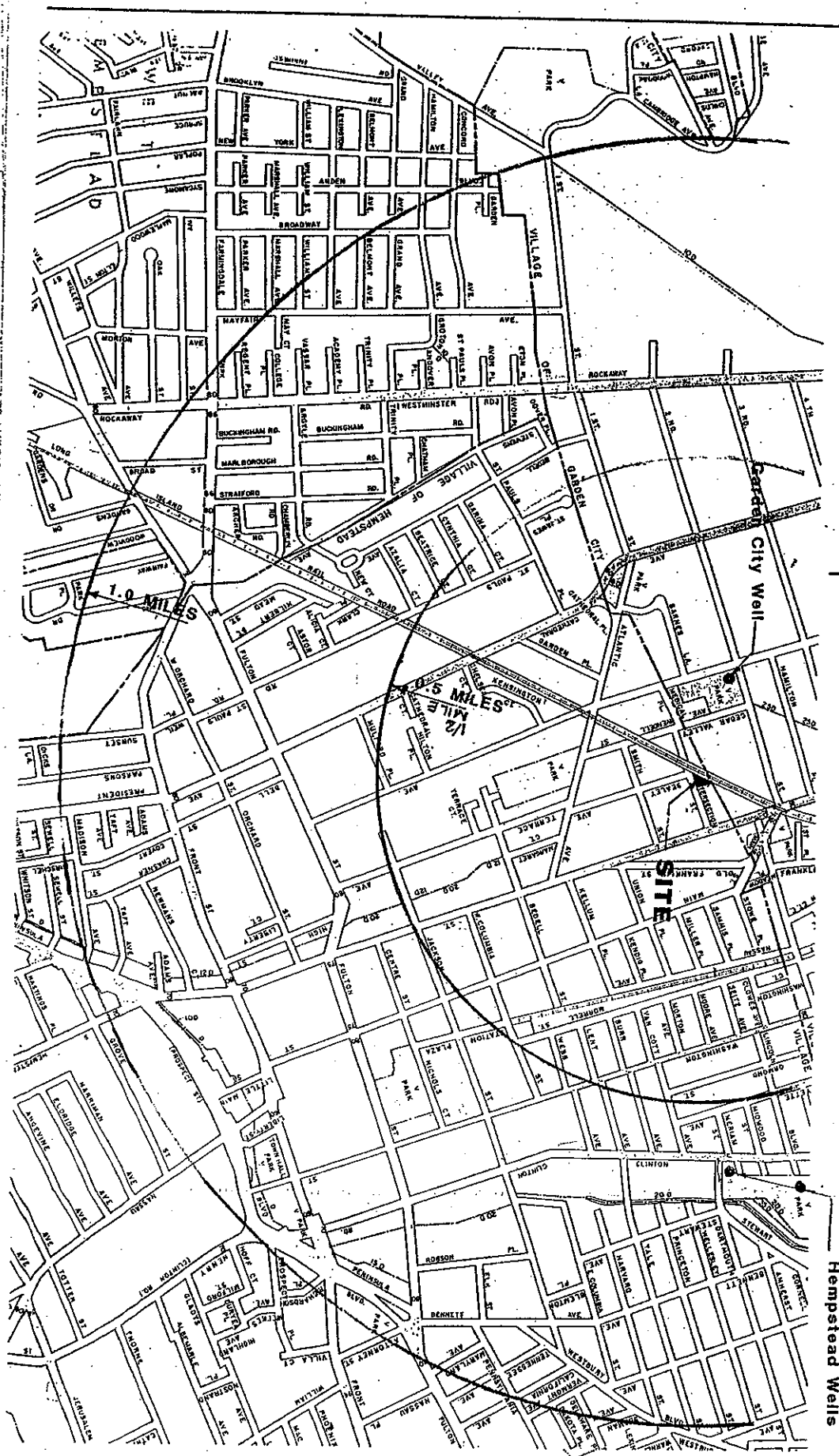
○ Catch Basin

◇ Pump

— Piping



INTERSECTION STREET



Scale 1" = 800'

THE
SEAR-BROWN
GROUP

Calculations:
Project: Oswego Oil

Sketch Map - Water Supply Wells

Project No.
Date

by
of

ORIGINAL SIZE = 11X17

Inc.

Phone: 516-249-3150

January 13, 1997

Mr. John Rhodes
Oswego Oil
45 Intersection Avenue
Hempstead, New York 11550

Re: Oswego Oil
45 Intersection Avenue
Hempstead, New York
NYSDEC Spill # 90-03084

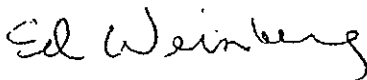
Dear Mr. Rhodes:

This letter is to inform you of the status of Spill Number 90-03084. The NYSDEC has removed the Oswego Oil site from its active petroleum spill listing, effective January 9, 1996. Therefore, NYSDEC requires no further investigation of the site at this time.

Should additional environmental problems be discovered at the site, the NYSDEC would require action at that time. The on-site monitoring wells could be used to ensure that there are no additional releases of free product to the groundwater on site.

If you have any questions regarding this matter, please contact me at (516) 249-3150, ext. 296.

Sincerely,



Ed Weinberg, P.E.
Technical Services Manager

cc: J. Noonan, Sear-Brown Group

Member

 The
Tyree
Organization

January 11, 1994

Oswego Oil Company
45 Intersection Avenue
Hempstead, New York

DEC - Haas
441 - 0332

Attn: John Rhodes

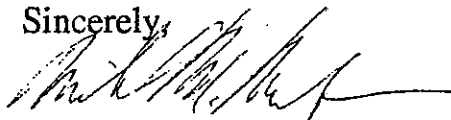
Re: NYSDEC Spill # 90-03084
Premises

Dear Mr. Rhodes;

Enclosed please find the latest quarterly report for Oswego Oil. With this report, we have requested review of the spill file for closure, since there are other groundwater situations that may be giving us the high dissolved readings. I have taken the liberty to forward the complete EPA report on the Hempstead Gas Plant along with the report enclosed to Mr. Haas. I hope that the data presented to the DEC will be sufficient for a closure of this spill.

If you need any additional information, please do not hesitate to contact me.

Sincerely,



Michael M. Mulqueen
Hydrogeologist/Project Manager

Encl.

~~cc: J. Noonan, Sear Brown Group~~

RECEIVED

JAN 24 1994

Member



Tyree
Environmental
Technologies

THE SEAR BROWN GROUP

Tyree Environmental Services, Inc.
208 Avenue C, Suite 201, Great Neck, NY 11021 Fax: 516-249-0281 Phone: 516-249-0130

January 11, 1994

NYSDEC
SUNY - Building #40
Stony Brook, New York 11790-2356
Attn: Mr. Joe Haas

Re: Oswego Fuel Oil
45 Intersection Avenue
Hempstead, New York
Spill #90-03084

Dear Mr. Haas:

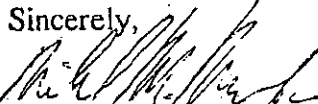
Enclosed please find the bi-monthly monitoring report, and investigation of other spills in the vicinity of the above referenced site. Included in this report is a description of the site's condition, possible off site sources of contamination and sampling data for October 1993. Please excuse the tardiness of this report due to the filing of FOIL requests with the USEPA.

At this time, we would like to request a review of this file for closure, for the following reasons:

1. No free floating product has been noted in over 18 months.
2. The properties to the north and west have environmental problems that are possibly affecting the groundwater quality beneath the Oswego site.

Please contact me at (516) 249-3150, extension 296, if you have any questions or require additional information.

Sincerely,


Michael M. Mulqueen
Hydrogeologist/Project Manager

MMM/jmf
Encl.

cc: J. Rhodes - Oswego Oil
J. Noonan, Sear Brown

Member

 Tyree
Environmental
Technologies

STATUS REPORT

JANUARY 1994

**OSWEGO FUEL OIL
45 INTERSECTION AVENUE
HEMPSTEAD, NEW YORK
SPILL #90-03084**

PREPARED FOR:

**OSWEGO FUEL OIL
45 INTERSECTION AVENUE
HEMPSTEAD, NEW YORK 11550**

PREPARED BY:

**TYREE BROTHERS ENVIRONMENTAL SERVICES, INC.
208 ROUTE 109
FARMINGDALE, NEW YORK 11735**

STATUS REPORT**DECEMBER 1993****OSWEGO OIL TERMINAL
45 INTERSECTION AVENUE
HEMPSTEAD, N. Y. 11550
SPILL #90-03084**

NYSDEC spill #90-03084 was issued to Oswego oil for the spill of approximately thirty (30) gallons of #2 fuel oil spilled by human error and affecting land resources.

This site is an active oil terminal located in Hempstead, New York. Currently there are five (5) 20,000 gallon and one (1) 25,000 gallon underground storage tanks in service. There are also two (2) 20,000 gallon above ground tanks on site. These seven (7) tanks are all piped together and all product is dispensed at the tank fill area. Additionally, there is a 10,000 gallon tank that was abandoned in place as well as two gasoline storage tanks that are not in service.

All oil that is pumped out of the terminal is pumped through a main tanker fill located on the southeast section of the property (see site map). The only petroleum products currently stored on site are fuel oil and kerosene. The catch basins in the tanker fill area are used to collect runoff and are piped to a distribution box. This distribution box is filled with bondtone. The bondtone will expand if exposed to petroleum products. This will seal off the release of petroleum products to the drywell and divert it to the 4,000 gallon tank to the south of the tanker fill area thus preventing any release of production the drywell. This system is permitted and tested regularly by the DEC (NY0206342) and has been in compliance.

Member

... and ... levels of contaminants detected through laboratory analysis of the upgradient wells promoted petroleum product ID analysis at regular intervals. The results of this has indicated that there is an upgradient source of contamination that the Oswego Oil monitoring wells are detecting. The two possible sources are the Hempstead Gas Plant site, located just north of Oswego Oil, and Mollineaux Brothers Fuel Oil, Inc., located to the west of Oswego Oil.

The Hempstead Gas Plant (HGP):

On June 9, 1981 the Long Island Lighting Company (LILCO), the current owners of the Hempstead Gas Plant contacted the United States Environmental Protection Agency in compliance to the CERCLA laws of 1980. At the time, LILCO notified the EPA that it believed that the sites did not come under CERCLIS or RCRA jurisdiction. On January 9, 1989, the USEPA added the Hempstead Gas Plant to the CERCLIS list (EPA ID#NYD986881829).

A final draft for the preliminary site assessment (PA) indicated a potential for soil contamination through facility process operations and an ash pit. The area of potentially contaminated soil includes the entire 7.56 acre site.

A list of the potential contaminants associated with the Hempstead Gas Plant include benzene, toluene, xylenes, phenols, pyrenes, and other organic compounds also found in heating oils.

The preliminary assessment also concluded that there is a potential for contaminant migration since the site has been demolished and there may be broken piping and the site is uncovered, and uncontained. The report also states that there is a potential for contaminants from the former waste units to migrate to groundwater. This is based on the absence of containment throughout the site.

The Hempstead Gas Plant (HGP) was constructed on the parcel of land just north of Oswego Oil. The HGP began product in 1859 and utilized the carburetor water process to produce gas. The plant ceased production in 1951, with a total operating life of eighty-seven (87) years.

Member

Carbureted water gas is the water gas process enriched with a thermally cracked hydrocarbon such as oil, natural or liquified petroleum gas. The hydrocarbons were added in a super heater/carburetor which was usually a checkered brick oven. The by products of the carbureted water gas reaction were ash, clinker, tar, pitch and light oil.

Ash, the residue remaining from the burning of off and hard coals, was generated in the steam producing portion of all gas plants up to about 1945, when the boilers were converted for liquid fuels. Since the HGP was in operation since 1859, it is assumed that the plant generated ash. An individual study on coal ash conducted by Oak Ridge National Laboratory exhibited individual hydrocarbon concentrations ranging from 66-816 parts per billion (ppb). The method of ash management at the HGP is unknown. If ash was stored on the native soils, then the ash storage area may be a possible point source of hydrocarbons into the groundwater.

Clinker was the residue remaining from the coke used in the water gas and carbureted water gas operations. Clinker has the appearance of a rough stony material and was often carted away to landfills. If this clinker was disposed of on the HGP property, this may also be a source of contamination.

An iron oxide sponge was used in all gas plants for the removal of hydrogen sulfides from the manufactured gas stream. The sponge was normal regenerated with air to reactivate the material but a significant amount of iron coated wood chips were generated. This filter media may have intercepted hydrocarbons from the carbureted water gas manufacturing operations. If the spent oxides were stored on native soils, a possible soil and/or groundwater contamination problem may exist.

Tar was also a bi-product of the gas manufacturing process. The tar was removed from the manufactured gas stream usually as an emulsion with water. It was initially stored in tar wells or containment tanks where the tar was removed. The water by product of this process probably contained high dissolved levels of volatile organic aromatics. The method of disposal of this waste water is unknown but may have been through injection wells. If this is the case, then there may be attributable soil and/or groundwater contamination beneath this site.

MKT00001

Pitch or tar heavies have been generated by the HGP. In later years, the tar was processed for the paving purposes. This by-product was also sold for the manufacture of electrodes. The storage and disposal of the pitch at the HGP is unknown, so there is a potential of environmental contamination.

Drip oils or light oil residues were by-products from the carburation process. The oils were removed from the gas stream by using condensers and precipitators. Water and oils were collected and the water was separated from the oils. The collected oils were reused or sold. The discharge point of the water was unknown, but may have entered the soil through an injection well system. If this is the case, the contaminated soils and/or groundwater may be on site. Groundwater flow is toward Oswego Oil.

The other potential area for cross contamination is NYSDEC spill #87-07262, approximately 35 feet west of the Oswego monthly well #2.

Mollineaux Brothers, Inc.

NYSDEC spill #87-07262 was issued to Mollineaux Brothers, Inc., a retail distributor of home heating oils. This particular spill number was issued for a loss of 50 gallons of heating oil and affecting land resources.

It should be noted that the Mollineaux site is currently undergoing significant construction activity and soil tank removals. It should also be noted that the site is currently a gravel and dirt base, with fuel dispensing equipment and used heating oil tanks scattered about. There is a possibility that there may have been an undocumented release of hydrocarbons since the fueling equipment and tanks are unprotected on a public accessway (Sealy Avenue).

There are ten other upgradient sites that have released hydrocarbon to either land or groundwater within one-half mile of the Oswego Oil terminal (see spill list).

Member

Oswego Oil Terminal - Overall Progress:

Tyree Brothers Environmental Services, Inc. started monitoring and bailing activities in October of 1990, in response to a leaking valve on a four (4) inch pipeline running along the northwest property line, approximately halfway between the two 20 thousand gallon UST's and the two 20 thousand gallon AST's. The soils beneath the valve were removed prior to the commencement of monitoring and bailing activities.

Monitoring and bailing efforts since 1990 have recovered a total of two (2) gallons of product from the five monitoring wells. The quarterly (semi-annual) sampling activities have determined that there are unknown hydrocarbons in the upgradient wells early in this investigation. The concentrations have become more dispersed with later sampling events, leading to non-detect levels in the quarterly samplings.

The analysis trends of volatile organic aromatic compounds is complex. There is an overall decrease in VOA's in monitoring wells #1, 3, 4 and 5. Well #2 which is closest to the Mollineaux facility has had an increase in VOA's with time.

Depth to water for each well was recorded on October 4, 1993 using a sonic interface probe. No free-phase petroleum product was observed during the monitoring. Tabulated monitoring data is included in this report.

SUMMARY:

1. There are eleven (11) upgradient active NYSDEC spill sites within one-half mile of Oswego Oil. One site is directly to the west of Oswego Oil and may be impacting the groundwater beneath the Oswego facility.
2. There is one (1) 7.8 acre CERCLIS site immediately upgradient of the subject site. The Hempstead Gas Plant has confirmed soil contamination. The site does have groundwater monitoring wells.
3. There has been no free floating petroleum product in any of the wells for more than a year.

Member

4. Closure of this spill is requested for the following reasons:
- a. The 30 gallons of fuel oil that had leaked out of the valve were remediated by soil excavation and bailing activities.
 - b. High dissolved levels have remained even after there was no floating product remaining. Upgradient wells periodically showed the highest BTEX concentrations. BTEX levels in the westernmost well closest to Mollineaux are increasing with time.
 - c. An upgradient plume is possibly emanating from the Hempstead Gas Plant which will make the NYSDEC cleanup goals unachievable for the groundwater beneath Oswego, since it extends under their property. The increasing dissolved levels in the western wells may be attributable to numerous undocumented spills on Sealy Avenue, associated with the Mollineau facility.
 - d. Oswego Oil has remained in compliance with the requirements mandated by the NYSDEC for this spill and for its spill protection permit. Oswego will continue to utilize the on-site monitoring wells after this spill file is closed to insure that there are no more free product releases on to the groundwater on site.

Member

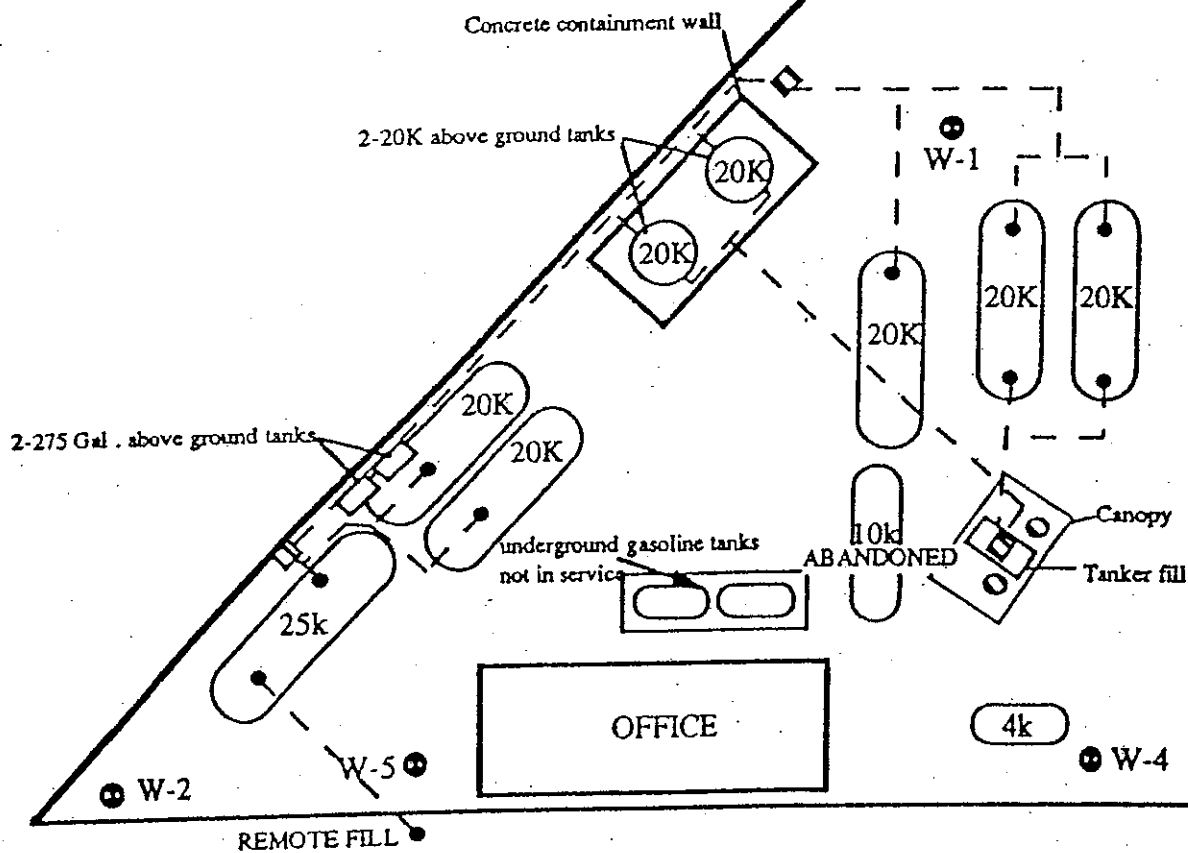
LEGEND:

● Monitoring well

○ Catch Basin

◊ Pump

— Piping

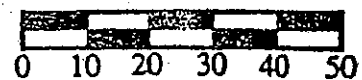
**INTERSECTION STREET**

*4K tank used as overfill protection. Piped from distribution box to tank.

**Tyree Brothers
Environmental Services, Inc.**

208 Route 109
Farmingdale, New York 11735

Oswego Oil
45 Intersection St.
Hempstead, N.Y.
Spill #90-03084

Scale in Feet

TYREE ENVIRONMENTAL TECHNOLOGIES, INC.
 1000 Old Farmington Road, Farmington, CT 06031 Phone: 516-249-1456

ANALYSIS REPORT - EPA602 • SW-846 8020

10/19/93

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
 Sampled by: Thomas Ritchie

Sample 1

Custody: C3335
 Collected: 10/07/93
 Location: Well #1
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/09/93
 Remarks:

Analyte	Concentration	Units	Dilution	MDL	Units
Benzene	9.0	ppb	1	0.72	ppb
Toluene	229	ppb	50	46	ppb
Chlorobenzene	ND	ppb	1	0.31	ppb
Ethylbenzene	104	ppb	50	55	ppb
m,p-Xylene	1130	ppb	50	100	ppb
o-Xylene	667	ppb	50	34	ppb
1,3-Dichlorobenzene	ND	ppb	1	1.0	ppb
1,4-Dichlorobenzene	ND	ppb	1	0.90	ppb
1,2-Dichlorobenzene	ND	ppb	1	0.76	ppb

Sample 2

Custody: C3335
 Collected: 10/07/93
 Location: Well #2
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/09/93
 Remarks:

Analyte	Concentration	Units	Dilution	MDL	Units
Benzene	ND	ppb	50	36	ppb
Toluene	515	ppb	50	46	ppb
Chlorobenzene	ND	ppb	50	15.5	ppb
Ethylbenzene	1800	ppb	50	55	ppb
m,p-Xylene	3370	ppb	50	100	ppb
o-Xylene	2760	ppb	50	34	ppb
1,3-Dichlorobenzene	ND	ppb	50	50	ppb
1,4-Dichlorobenzene	ND	ppb	50	45	ppb
1,2-Dichlorobenzene	ND	ppb	50	38	ppb

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration;
 Results based on Dry Weight Basis

Member

ANALYSIS REPORT - EPA602 • SW-846 8020

10/19/93

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
 Sampled by: Thomas Ritchie

Sample 3

Custody: C3335
 Collected: 10/07/93
 Location: Well #3
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/09/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	ND	ppb	1	0.72	ppb
Toluene	ND	ppb	1	0.92	ppb
Chlorobenzene	ND	ppb	1	0.31	ppb
Ethylbenzene	ND	ppb	1	1.1	ppb
m,p-Xylene	<2.0	ppb	1	2.0	ppb
o-Xylene	1.6	ppb	1	0.68	ppb
1,3-Dichlorobenzene	ND	ppb	1	1.0	ppb
1,4-Dichlorobenzene	ND	ppb	1	0.90	ppb
1,2-Dichlorobenzene	ND	ppb	1	0.76	ppb

Sample 4

Custody: C3335
 Collected: 10/07/93
 Location: Well #4
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/09/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	ND	ppb	10	7.2	ppb
Toluene	ND	ppb	10	9.2	ppb
Chlorobenzene	ND	ppb	10	3.1	ppb
Ethylbenzene	ND	ppb	10	11	ppb
m,p-Xylene	ND	ppb	10	20	ppb
o-Xylene	ND	ppb	10	6.8	ppb
1,3-Dichlorobenzene	ND	ppb	10	10	ppb
1,4-Dichlorobenzene	ND	ppb	10	9	ppb
1,2-Dichlorobenzene	ND	ppb	10	7.6	ppb

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results based on Dry Weight Basis

Member

Tyree Environmental Testing Laboratories

208 Route 100 • Farmingdale, NY 11735 • Fax: 516-249-8344 • Phone: 516-249-1000

ANALYSIS REPORT - EPA602 • SW-846 8020

10/19/93

Project

Oswego Oil J/N 923117
45 Intersection Street
Hempstead, NY
Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
Sampled by: Thomas Ritchie

Sample 5

Custody: C3335
Collected: 10/07/93
Location: Well #5
Remarks:

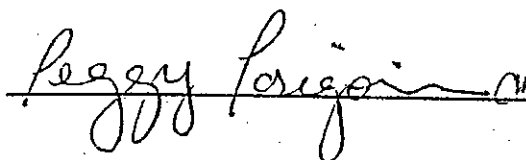
Type: Grab
Matrix: Liquid

Analysis Information

Analyzed: 10/09/93
Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	<36	ppb	50	36	ppb
Toluene	127	ppb	50	46	ppb
Chlorobenzene	ND	ppb	50	15.5	ppb
Ethylbenzene	270	ppb	50	55	ppb
m,p-Xylene	1430	ppb	50	100	ppb
o-Xylene	952	ppb	50	34	ppb
1,3-Dichlorobenzene	ND	ppb	50	50	ppb
1,4-Dichlorobenzene	ND	ppb	50	45	ppb
1,2-Dichlorobenzene	ND	ppb	50	38	ppb

Reviewed by:



ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results based on Dry Weight Basis

Member

Environmental

208 Route 109, Farmingdale, NY 11735

Tel: 516-241-4556

ANALYSIS REPORT - Pet Product ID - 310.13

10/19/93

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
 Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
 Sampled by: Thomas Ritchie

Sample 1

Custody: C3335
 Collected: 10/07/93
 Location: Well #1
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/13/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Sample 2

Custody: C3335
 Collected: 10/07/93
 Location: Well #2
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/13/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results based on Dry Weight Basis

Member

Tyree
 Environmental
 Technologies

ANALYSIS REPORT - Pet Product ID - 310.13

10/19/93

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
 Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
 Sampled by: Thomas Ritchie

Sample 3

Custody: C3335
 Collected: 10/07/93
 Location: Well #3
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/13/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Sample 4

Custody: C3335
 Collected: 10/07/93
 Location: Well #4
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/13/93
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration;
 Results based on Dry Weight Basis

Member

 Tyree
 Environmental
 Technologies

Testing Laboratories, Inc.

1000 Old Country Road, Suite 100, Great Neck, NY 11021-2208
 Fax: 516-249-8344 Phone: 516-249-1556

ANALYSIS REPORT - Pet Product ID - 310.13

10/19/93

Project

Oswego Oil - J/N 923117
 45 Intersection Street
 Hempstead, NY
 Handler: Mike Mulqueen

Custody Document C3335

Received: 10/07/93 6:25 PM
 Sampled by: Thomas Ritchie

Sample 5

Custody: C3335
 Collected: 10/07/93
 Location: Well #5
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 10/13/93
 Remarks:

Analyte

Analyte	Concentration	Units	Dilution	MDL	Units
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Reviewed by:

Beggy Ligo

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results based on Dry Weight Basis

Member

Tyree
Environmental
Technologies

Table 1: NYSDEC Spill Log Information

UPGRADIENT SPILLS WITHIN VICINITY OF OSWEGO OIL CORPORATION, 45 INTERSECTION AVE, HEMPSTEAD, NEW YORK

SPILL NUMBER	MATERIAL CLASS	QNTY	NAME/ADDRESS	CAUSE	RESOURCE	ACTIVE (A) CLOSED (C)
91-03570	HAZ MATERIAL	UNKNOWN	625 SOUTH STREET	DELIBERATE	GROUNDWATER	ACTIVE
90-02695	GASOLINE	UNKNOWN	37 CATHEDRAL AVENUE	TANK TEST FAILURE	LAND	ACTIVE
90-04663	#2 FUEL OIL	UNKNOWN	1140 FRANKLIN AVENUE	TANK TEST FAILURE	GROUNDWATER	ACTIVE
90-09641	#4 FUEL OIL	UNKNOWN	22 HAMILTON PALCE	TANK TEST FAILURE	LAND	ACTIVE
90-11027	GASOLINE	UNKNOWN	1300 FRANKLIN AVENUE	TANK TEST FAILURE	GROUNDWATER	ACTIVE
86-06650	GASOLINE	UNKNOWN	NEW YORK TELEPHONE	TANK FAILURE	GROUNDWATER	ACTIVE
87-00281	GASOLINE	UNKNOWN	CHERRY VALLEY ROAD	TANK FAILURE	GROUNDWATER	ACTIVE
86-08055	#2 FUEL OIL	UNKNOWN	GARDEN CITY MAINT CTR, CHERRY AVENUE	TANK FAILURE	GROUNDWATER	ACTIVE
91-00472	#4 FUEL OIL	UNKNOWN	CATHEDRAL AVENUE	HUMAN ERROR	LAND	ACTIVE
90-03084	#2 FUEL OIL	30 GALLONS	45 INTERSECTION AVENUE	HUMAN ERROR	LAND	ACTIVE
87-07262	#2 FUEL OIL	50 GALLONS	INTERSECTION STREET & SEALY AVENUE	UNKNOWN	LAND	ACTIVE
88-02361	#2 FUEL OIL	UNKNOWN	20 WENDEL TERRACE (NON COM-INST)	TANK TEST FAILURE	GROUNDWATER	ACTIVE

TYREE BROS. ENVIRONMENTAL SERVICES
208 ROUTE 109
FARMINGDALE, NY 11735

(THIS WEEK) 10/4/93

(LAST WEEK) 8/11/93

(FIRST WEEK) 10/27/90

WELL #	D.T.P.	D.T.W.	PRODUCT	WELL #	D.T.P.	D.T.W.	PRODUCT	WELL #	D.T.P.	D.T.W.	PRODUCT
1		25.1'		1		COVERED		1		30.50'	
2		25.7'		2		29.44'		2		30.27'	
3				3		29.13'		3		30.00'	
4				4		28.97'		4		29.81'	
5				5		29.35'		5		30.22'	

COMMENT

TRACE = FLOATING PRODUCT

OSWEGO FUEL OIL
45 INTERSECTION STREET
HENPSTEAD, NEW YORK
90-03084

* PRODUCT REMOVED THIS DATE -----> 0 GALLONS
* TOTAL PRODUCT REMOVED TO DATE -----> 2 GALLONS

Environmental Services

Tel: 516-249-1234 Fax: 516-249-1234

May 9, 1994

New York State Department
of Environmental Conservation
Spill Unit
Building #40
Stonybrook, New York 11790-2356

Attn: Joe Haas

Re: Oswego Oil
45 Intersection Avenue
Hempstead, New York
NYSDEC Spill #90-03084

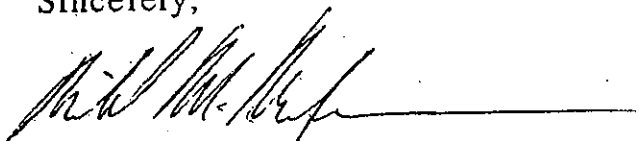
Dear Mr. Haas:

Enclosed please find the last required round of sampling for the above referenced location as indicated in your February, 1994 correspondence.

The sampling was delayed until ambient weather conditions would insure that all wells were accessible.

If you need any further information, please do not hesitate to contact me.

Sincerely,



Michael M. Mulqueen
Hydrogeologist/Project Manager

cc: J. Rhodes, Oswego
~~J. Noonan, Sears Brawn~~

RECEIVED

MAY 23 1994

Member

 Tyree
Environmental
Technologies

THE SEAR BROWN GROUP

Environ
208 Route 109, Fairport, NY 11731

ANALYSIS REPORT - EPA602 • SW-846 8020

04/29/94

Project

Oswego Oil J/N 923117
45 Intersection Street
Hempstead, NY
Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
Sampled by: Bernie Ludwig
Job Number: 923117

Sample 1

Custody: C6106
Collected: 04/21/94
Location: Well 1
Remarks:

Type: Grab
Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	49.0	ppb	10	7.2	ppb
Toluene	198	ppb	10	9.2	ppb
Chlorobenzene	ND	ppb	10	3.1	ppb
Ethylbenzene	71.7	ppb	10	11	ppb
m,p-Xylene	694	ppb	10	20	ppb
o-Xylene	358	ppb	10	6.8	ppb
1,3-Dichlorobenzene	ND	ppb	10	10	ppb
1,4-Dichlorobenzene	ND	ppb	10	9	ppb
1,2-Dichlorobenzene	ND	ppb	10	7.6	ppb

Sample 2

Custody: C6106
Collected: 04/21/94
Location: Well 2
Remarks:

Type: Grab
Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	ND	ppb	50	36	ppb
Toluene	625	ppb	50	46	ppb
Chlorobenzene	ND	ppb	50	15.5	ppb
Ethylbenzene	1220	ppb	50	55	ppb
m,p-Xylene	1650	ppb	50	100	ppb
o-Xylene	1030	ppb	50	34	ppb
1,3-Dichlorobenzene	ND	ppb	50	50	ppb
1,4-Dichlorobenzene	ND	ppb	50	45	ppb
1,2-Dichlorobenzene	ND	ppb	50	38	ppb

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.

ANALYSIS REPORT - EPA602 • SW-846 8020

04/29/94

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
 Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
 Sampled by: Bernie Ludwig
 Job Number: 923117

Sample 3

Custody: C6106
 Collected: 04/21/94
 Location: Well 3
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	1.0	ppb	1	0.72	ppb
Toluene	15.9	ppb	1	0.92	ppb
Chlorobenzene	ND	ppb	1	0.31	ppb
Ethylbenzene	<1.1	ppb	1	1.1	ppb
m,p-Xylene	2.0	ppb	1	2.0	ppb
o-Xylene	12.6	ppb	1	0.68	ppb
1,3-Dichlorobenzene	ND	ppb	1	1.0	ppb
1,4-Dichlorobenzene	ND	ppb	1	0.90	ppb
1,2-Dichlorobenzene	ND	ppb	1	0.76	ppb

Sample 4

Custody: C6106
 Collected: 04/21/94
 Location: Well 4
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Benzene	ND	ppb	10	7.2	ppb
Toluene	ND	ppb	10	9.2	ppb
Chlorobenzene	ND	ppb	10	3.1	ppb
Ethylbenzene	ND	ppb	10	11	ppb
m,p-Xylene	ND	ppb	10	20	ppb
o-Xylene	ND	ppb	10	6.8	ppb
1,3-Dichlorobenzene	ND	ppb	10	10	ppb
1,4-Dichlorobenzene	ND	ppb	10	9	ppb
1,2-Dichlorobenzene	ND	ppb	10	7.6	ppb

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.

ANALYSIS REPORT - EPA602 • SW-846 8020

04/29/94

Project

Oswego Oil J/N 923117
45 Intersection Street
Hempstead, NY
Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
Sampled by: Bernie Ludwig
Job Number: 923117

Sample 5

Custody: C6106
Collected: 04/21/94
Location: Well 5
Remarks:

Type: Grab
Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
Remarks:

Analyte	Concentration	Units	Dilution	MDL	Units
Benzene	ND	ppb	50	36	ppb
Toluene	145	ppb	50	46	ppb
Chlorobenzene	ND	ppb	50	15.5	ppb
Ethylbenzene	200	ppb	50	55	ppb
m,p-Xylene	597	ppb	50	100	ppb
o-Xylene	403	ppb	50	34	ppb
1,3-Dichlorobenzene	ND	ppb	50	50	ppb
1,4-Dichlorobenzene	ND	ppb	50	45	ppb
1,2-Dichlorobenzene	ND	ppb	50	38	ppb

Reviewed by: Lezzy Frigo *cu*

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.

208 Route 100

ANALYSIS REPORT - Pet Product ID - 310.13

04/29/94

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
 Sampled by: Bernie Ludwig
 Job Number: 923117

Sample 1

Custody: C6106
 Collected: 04/21/94
 Location: Well 1
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	40	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Sample 2

Custody: C6106
 Collected: 04/21/94
 Location: Well 2
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	PRESENT	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.

Member



Tyree
Environmental
Technologies

ANALYSIS REPORT - Pet Product ID - 310.13

04/29/94

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
 Sampled by: Bernie Ludwig
 Job Number: 923117

Sample 3

Custody: C6106
 Collected: 04/21/94
 Location: Well 3
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Sample 4

Custody: C6106
 Collected: 04/21/94
 Location: Well 4
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

<u>Analyte</u>	<u>Concentration</u>	<u>Units</u>	<u>Dilution</u>	<u>MDL</u>	<u>Units</u>
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	ND	ppm	1	1	ppm
#4 Fuel Oil	TRACES	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.



**Tyree
 Environmental
 Technologies**

Environmental Technologies, Inc.
 208 Route 100, Farmingdale, NY 11735 Phone: 516-249-1456

ANALYSIS REPORT - Pet Product ID - 310.13

04/29/94

Project

Oswego Oil J/N 923117
 45 Intersection Street
 Hempstead, NY
Handler: Mike Mulqueen

Custody Document C6106

Received: 04/21/94 3:30 PM
 Sampled by: Bernie Ludwig
 Job Number: 923117

Sample 5

Custody: C6106
 Collected: 04/21/94
 Location: Well 5
 Remarks:

Type: Grab
 Matrix: Liquid

Analysis Information

Analyzed: 04/26/94
 Remarks:

Analyte	Concentration	Units	Dilution	MDL	Units
Gasoline	ND		1		
Lubricating Oils	ND		1		
Kerosene/Jet Fuel	ND	ppm	1	1	ppm
#2 Fuel Oil/Diesel	TRACES	ppm	1	1	ppm
#4 Fuel Oil	ND	ppm	1	2	ppm
#6 Fuel Oil	ND	ppm	1	4	ppm

Reviewed by: *Peggy Lorigo* *cu*

ppb=ug/L,ug/Kg; ppm=mg/L,mg/Kg; ND=Not Detected; B=in blank; NA=Not Analyzed;MDL=Method Detection Limit;nd=Not Determined; NR=Not Reported;SM=Sample;E=Quantitated above calibration; Results of soil samples are based on dry weight basis; IDL=Instrument detection limit.

NYSDEC SPILL REPORT FORM

DEC REGION# 1 (Stony Brook) SPILL NUMBER 9311634
 CALL NAME: INTERNATIONAL FUEL CORP DEC LEAD: AUSTIN
 CALLER'S NAME: PAT RHODES NOTIFIER'S NAME: _____
 CALLER'S AGENCY: OSWEGO OIL CO NOTIFIER'S AGENCY: _____
 CALLER'S PHONE: (516) 485-3304 EXT. _____ NOTIFIER'S PHONE: _____ EXT. _____

SPILL DATE: 12/29/1993 TIME: 17:00
 CALL RECEIVED DATE: 12/29/1993 TIME: 17:05 RECEIVED BY CID #: _____

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	<u>Pet-Haz-Other-Unk.</u>	<u>30</u>	<u>Gal</u> - Lbs	<u>0</u>
2)	<u>Pet-Haz-Other-Unk.</u>		<u>Gal</u> - Lbs	
3)	<u>Pet-Haz-Other-Unk.</u>		<u>Gal</u> - Lbs	
4)	<u>Pet-Haz-Other-Unk.</u>		<u>Gal</u> - Lbs	

SPILL LOCATION		POTENTIAL SPILLER	
PLACE: <u>INTERNATIONAL FUEL CORP</u>	NAME: <u>INTERNATIONAL FUEL CORP</u>	STREET: <u>772 MARTIN DRIVE</u>	
STREET: <u>45 INTERSECTION STREET</u>	CITY: <u>UNIONDALE</u>	STATE: _____	ZIP: _____
T/C/V: <u>HEMPSTEAD</u> CO: <u>NASSAU</u>	CONTACT: _____	PHONE: <u>(516) 538-0342</u>	EXT. _____
CONTACT: _____			
PHONE: _____ EXT. _____			

SPILL CAUSE			SPILL SOURCE		
<u>Human Error</u>	<u>Tank Test Failure*</u>	<u>Tank Failure</u>	<u>Gas Station</u>	<u>Private Dwelling</u>	<u>Non-Maj Facility</u>
<u>Traffic Accident</u>	<u>Housekeeping</u>	<u>Tank Overfill</u>	<u>Passenger Vehicle</u>	<u>Vessel</u>	<u>Comm/Indust</u>
<u>Equipment Failure</u>	<u>Deliberate</u>	<u>Other</u>	<u>Comm. Vehicle</u>	<u>Railroad Car</u>	<u>Non-Comm/Instit</u>
<u>Vandalism</u>	<u>Abandoned Drums</u>	<u>Unknown</u>	<u>Tank Truck</u>	<u>Major Facility</u>	<u>Unknown</u>

RESOURCE AFFECTED			SPILL REPORTED BY		
<u>On Land</u>	<u>Groundwater</u>	<u>Air</u>	<u>Responsible Party</u>	<u>Tank Tester</u>	<u>Local Agency</u>
<u>In Sewer</u>	<u>Surface Water**</u>		<u>Affected Persons</u>	<u>DEC</u>	<u>Federal Gov't</u>
			<u>Police Department</u>	<u>Citizen</u>	<u>Other</u>
			<u>Fire Department</u>	<u>Health Dept.</u>	

CALLER REMARKS: FILLING TANK TRUCK, SPILL IN BERM AREA, CLEANED UP WITH SPEEDI DRI, SPILL CONTAINED WITHIN LOADING RACKS, NO RESPONSE TONIGHT

PBS Number	Tank Number	Tank Size	Test Method	Leak Rate

PRIMARY CONTACT CALLED DATE: _____ TIME: _____ hrs. REACHED DATE: _____ TIME: _____ hrs.
 SECONDARY CONT. CALLED DATE: _____ TIME: _____ hrs. FAXED BY CID#: _____

PIN #	T & A	Cost Center	ISR to Central Office
Cleanup Ceased <u>02/24/1994</u>	Meets St'ds <u>YES</u>	Last Inspection	Penalty <u>NO</u>
RP-CUI	ENF-INIT	INVES-COM	CAP
UST Trust Eligible <u>NO</u>	Site: A <u>B</u> C D E	Resp. Party 1 2 <u>3</u> 4 5 6	Reg Close Date <u>02/24/1994</u>

Created on 12/30/1993 Last Updated on 02/25/1994 Is Updated? NO

Date Printed: 07/10/2004

EDO DATA INPUT []

NYSDEC SPILL REPORT FORM

DEC REGION# 1 (Stony Brook) SPILL NUMBER 9311634
 CALL NAME: INTERNATIONAL FUEL CORP DEC LEAD: AUSTIN
 CALLER'S NAME: PAT RHODES NOTIFIER'S NAME: _____
 CALLER'S AGENCY: OSWEGO OIL CO NOTIFIER'S AGENCY: _____
 CALLER'S PHONE: (516) 485-3304 EXT. _____ NOTIFIER'S PHONE: _____ EXT. _____

SPILL DATE: 12/29/1993 TIME: 17:00
 CALL RECEIVED DATE: 12/29/1993 TIME: 17:05 RECEIVED BY CID #: _____

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	<u>Pet-Haz-Other-Unk.</u>	<u>30</u>	<u>Gal</u> - Lbs	<u>0</u>
2) _____	<u>Pet-Haz-Other-Unk.</u>	_____	<u>Gal</u> - Lbs	_____
3) _____	<u>Pet-Haz-Other-Unk.</u>	_____	<u>Gal</u> - Lbs	_____
4) _____	<u>Pet-Haz-Other-Unk.</u>	_____	<u>Gal</u> - Lbs	_____

SPILL LOCATION

PLACE: INTERNATIONAL FUEL CORP
 STREET: 45 INTERSECTION STREET
 T/C/V: HEMPSTEAD CO: NASSAU
 CONTACT: _____
 PHONE: _____ EXT. _____

POTENTIAL SPILLER

NAME: INTERNATIONAL FUEL CORP
 STREET: 772 MARTIN DRIVE
 CITY: UNIONDALE
 STATE: _____ ZIP: _____
 CONTACT: _____
 PHONE: (516) 538-0342 EXT. _____

SPILL CAUSE

Human Error Tank Test Failure* Tank Failure
Traffic Accident Housekeeping Tank Overfill
Equipment Failure Deliberate Other
 Vandalism Abandoned Drums Unknown

SPILL SOURCE

Gas Station Private Dwelling Non-Maj Facility
 Passenger Vehicle Vessel Comm/Indust
 Comm. Vehicle Railroad Car Non-Comm/Instt
Tank Truck Major Facility Unknown

RESOURCE AFFECTED

On Land Groundwater Air
 In Sewer Surface Water**

SPILL REPORTED BY

Responsible Party Tank Tester Local Agency
Affected Persons DEC Federal Gov't
 Police Department Citizen Other
 Fire Department Health Dept.

**WATERBODY: _____

CALLER REMARKS: FILLING TANK TRUCK, SPILL IN BERM AREA, CLEANED UP WITH SPEEDI DRI, SPILL CONTAINED WITHIN LOADING RACKS, NO RESPONSE TONIGHT

PBS Number	Tank Number	Tank Size	Test Method	Leak Rate
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

PRIMARY CONTACT CALLED DATE: _____ TIME: _____ hrs. REACHED DATE: _____ TIME: _____ hrs.
 SECONDARY CONT. CALLED DATE: _____ TIME: _____ hrs. FAXED BY CID#: _____

PIN #	T & A	Cost Center	ISR to Central Office
Cleanup Ceased	02/24/1994	Meets St'ds YES	Last Inspection
RP-CUI	ENF-INIT	INVS-COM	CAP
UST Trust Eligible NO	Site: A <u>B</u> C D E	Resp. Party 1 2 <u>3</u> 4 5 6	Reg Close Date 02/24/1994
Penalty NO			

Created on 12/30/1993 Last Updated on 02/25/1994 Is Updated? NO

Date Printed: 07/19/2001

EDO

DATA INPUT []

**NYSDEC REGION 1
INITIAL SPILL REPORT**

AM
LOGGED

App Page 299 of 749

SPILL DATE 12/29/93 TIME 1700 hrs. SPILL NO. 93-11634
 OFF DATE 12/29/93 TIME 1730 hrs. ANS SVC DATE 12/29/93 TIME 1705 hrs.
 REG OFF DATE 12/29/93 TIME 1805 hrs. FIRST CALL REC'D BY: A.R. C
 UST ELIGIBLE? Y. N CALL REC'D BY: BOB
 LEGAL ACTION: Y. N INITIAL CLASSIFICATION: B.3

PETROLEUM SPILLED

MATERIAL CLASS

1-GASOLINE	5-DIESEL	8-NON PCB OIL	1-PETROLEUM	5-UNKNOWN
2-#2 FUEL	6-JET FUEL	9-PCB OIL	2-NON PETRO/NON HAZ	
3-#4 FUEL	7-WASTE OIL	10-KEROSENE	3-HAZARDOUS MATERIAL	
4-#6 FUEL		11-UNKNOWN	4-RAW SEWAGE	

OTHER
MATERIAL
SPILLED

QUANTITY SPILLED 30 GALS/LBS
 TANK SIZE GALS
 FAILURE RATE G.P.H
 TEST METHOD

SPILL LOCATION

ADDRESS: OSWEGO LANDING DOCK SPILLER NAME: NTL FUEL CORP
45 INTERSECTION ST. STREET #: 722 MARTIN DR.
1/2 MILE WEST OF FRANKLIN CITY/ST/ZIP: UNIONDALE
 MUNICIPALITY: Hempstead SPILLER'S PHONE: 538-0342
28 - NASSAU 47 - SUFFOLK CONTACT:

SPILL CAUSE

SPILL SOURCE

1-HUMAN ERROR	7-DELIBERATE	1-COMM/INDUST.	7-COMM.VEHICLE
2-TRAFFIC ACCIDENT	8-ABAND. DRUMS	2-NON COMM/INST	2-TANK TRUCK
3-EQUIP. FAILURE	9-TANK FAILURE	3-MAJOR FACILITY	9-PVT.DWELLING
4-VANDALISM	10-TANK OVERFILL	4-BULK FACILITY	10-VESSEL
5-TK TEST FAIL.	11-OTHER	5-GAS STATION	11-RAILROAD CAR
(BULK STOR.PRO.)	12-UNKNOWN	6-PASS.VEHICLE	12-UNKNOWN
6-HOUSEKEEPING			

RESOURCE AFFECTED

NOTIFIER

1-ON LAND	4-SURFACE WATER	1-RESP. PARTY	7-CITIZEN
2-IN DRAINAGE	5-AIR	2-AFFECT. PERS.	8-HEALTH DEPT.
3-GROUND WATER		3-POLICE DEPT.	9-LOCAL AGENCY
WATER BODY		4-FIRE DEPT.	10-FED. GOVT.
DRAIN BASIN/SUB BASIN:		5-TANK TESTER	11-OTHER
		6-NYSDEC	(SEE BELOW)

REMARKS: FILLING TANK TRUCK / SPILL IN BERM AREA -
CLEANED UP w/ SPILL-DRY / NO OIL BACK.

ACTION/HISTORY: 12-29-93 @ 18:15 - TELECALL w/ MRS. RHODES AUSTIN ON SITE 12/30/93
SPILL CONTAINED WITHIN LANDING DOCKS. - NO RESPONSE TONIGHT. Cleanup Complete
Disposal receipt received.

CALLER'S NAME: POT RHODES NOTIFIER'S NAME: JOAN RHODES
 CALLER'S AGENCY: OSWEGO OIL CO NOTIFIER'S AGENCY:
 CALLER'S PHONE: 516-485-3304 NOTIFIER'S PHONE:
 PIN #: ASSIGNED TO: BA
 T/A #: CLOSED DATE: M^o 2/24/94
 CC: FINAL CLASSIFICATION:
 EPA ID#:

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

Information in the shaded areas
is not required by Federal law.

UNIFORM HAZARDOUS WASTE MANIFEST						1. Generator's US EPA ID No.		Manifest Document No.		Form Approved OMB No. 2050-0039 Expires 9-30-94			
3. Generator's Name and Mailing Address <div></div>								2. Page 1 of 1		Information in the shaded areas is not required by Federal law.			
4. Generator's Phone () 								A. State Manifest Document Number <div>NJA 1601457</div>					
5. Transporter 1 Company Name TYREE BROS. ENVIRONMENTAL SERVICE								B. State Generator's ID 					
6. US EPA ID Number NYD0006801243								C. State Trans. ID NJ DEH 1213153					
7. Transporter 2 Company Name 								D. Transporter's Phone () 					
8. US EPA ID Number 								E. State Trans. ID 					
9. Designated Facility Name and Site Address S & N WASTE, INC. 105 JACOBUS AVENUE SOUTH KEARNY, NJ 07032								F. Transporter's Phone () 					
10. US EPA ID Number NJ000129110								G. State Facility's ID 					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM a. X HAZARDOUS WASTE SOLID, D NOS S NA 3082 PG 111 FUEL OIL, WATER, SOIL								12. Containers No. Type 0 / DN		13. Total Quantity 		14. Unit Wt/Vol P	
b.													
c.													
d.													
Additional Descriptions for Materials Listed Above T/S VERMILION FUEL OIL 5-20% WATER 8-10%								K. Handling Codes for Wastes Listed Above 					
2011 DA 1000 DEBBES (SPEEDY DAY) 70-100%													
15. Special Handling Instructions and Additional Information <div>015129-007 DECAL # 47577 EMERGENCY CONTACT: ELLEN PENNA (518) 249-3150</div> <div> </div> <div> </div>													
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford. Printed/Typed Name: <i>V. A. ...</i> Signature: <i>[Signature]</i> Month Day Year:													
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: <i>[Name]</i> Signature: <i>[Signature]</i> Month Day Year:													
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: Signature: Month Day Year:													
19. Discrepancy Indication Space 													
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name: Signature: Month Day Year:													

EPA Form 8730-22 (Rev. 9/88) Previous editions are obsolete.

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

(201) 344-4004

Use Ball Point Pen - Press Firmly

App Page 301 of 749

CUSTOMER # 015139

LSR # 54-444-46

14

TECHNICAL REP. INITIALS *B*

GENERATOR INFORMATION

GENERATORS NAME Bever, Del

MAILING ADDRESS

ASTE PICK-UP ADDRESS 1511 Truxtun Ave - New York, N.Y.

EPA ID NO. 147

CH CONTACT ELLEN PENNA

TECH CONTACT PHONE # 516-249-3150

M.S.D.S. Attached YES NO ☒

COMMON NAME OF WASTE VIRGIN FUEL OIL CONTAMINATED SOIL & DEBRIS

PROCESS GENERATING WASTE SPILL CLEANUP FROM THE REMOVAL OF #2 FUEL OIL TANK

IS THIS WASTE FROM A PLANT CLOSURE OR PLANT CLEAN UP? YES NO ☒

PHYSICAL/CHEMICAL CHARACTERISTICS

ODOR NONE MILD STRONG DESCRIBE	PHYSICAL STATE @ RT <input checked="" type="checkbox"/> SOLID LIQUID POWDER SEMI-SOLID SINGLE PHASE BI-LAYERED MULTI-LAYERED	FLASH POINT (F/C.C.) LIQUIDS _____ - <100 - ACTUAL _____ - 100-140 - X - >140-200 - _____ - 200 - IGNITABILITY (SOLIDS) YES _____ NO <input checked="" type="checkbox"/>	CORROSIVITY (pH) _____ ≤ 2.0 _____ > 2.01-5 _____ X - 5.01-9 _____ > 9.01-12.50 _____ ≥ 12.50 EXACT pH _____
FUEL			
OLOR: BROWN			

PERCENT LIQUID/SOLID	REACTIVITY (PPM)	FUELS/SOLVENTS	AQUEOUS
TOTAL _____ %	TOTAL CYANIDES 0	BTU/LB _____	TOTAL ORGANIC CARBON _____
UNSPENT SOLIDS _____ %	AMENABLE CYANIDES 0	HALOGEN _____	< 1,000 mg/l
FREE LIQUIDS _____	REACTIVE SULFIDES 0	%ASH _____	< 10,000 mg/l
WATER _____	WATER REACTIVE _____	%SULFUR _____	< 25,000 mg/l
SPECIFIC GRAVITY	AIR REACTIVE _____	%BS&W _____	< 50,000 mg/l
< 8 _____ > 10.12	SHOCK SENSITIVE _____		< 100,000 mg/l
< 8.1 _____ > 1.2	GENERATES TOXIC FUMES		EXACT _____
N/A	when mixed with H2O, acid or base	N/A	N/A

CHEMICAL COMPOSITION

[illegible]

D. TOXICITY CHARACTERISTIC

Contaminant	EPA HW No.1	CAS No.2	Regulatory Level (mg/L)	Actual Level
Arsenic.....	D004	7440-38-2	5.0	0
Barium.....	D005	7440-39-3	100.0	0
Cadmium.....	D006	7440-43-9	1.0	0
Chromium.....	D007	7440-47-3	5.0	0
Lead.....	D008	7439-92-1	5.0	0
Mercury.....	D009	7439-97-6	0.2	0
Selenium.....	D010	7782-49-2	1.0	0
Silver.....	D011	7440-22-4	5.0	0
Benzene.....	D018	71-43-2	0.5	0
Carbon tetrachloride	D019	56-23-5	0.5	0
Chlordane.....	D020	57-74-9	0.03	0
Chlorobenzene.....	D021	108-90-7	100.0	0
Chloroform.....	D022	67-66-3	8.0	0
o-Cresol.....	D023	95-48-7	200.0	0
m-Cresol.....	D024	108-39-4	200.0	0
p-Cresol.....	D025	108-44-5	200.0	0
Cresol.....	D026		200.0	0
2,4-D.....	D016	94-75-7	10.0	0
1,4-Dichlorobenzene	D027	106-46-7	7.5	0
1,2-Dichloroethane	D028	107-06-2	0.5	0
1,1-Dichloroethylene	D029	75-35-4	0.7	0
2,4-Dinitrotoluene	D030	121-14-2	0.13	0
Endrin.....	D012	72-20-8	0.02	0
Heptachlor (and its hydroxide).	D031	76-44-8	0.008	0
Hexachlorobenzene	D032	118-74-1	0.13	0
Hexachlorobutadiene.	D033	87-69-3	0.5	0
Hexachloroethane.	D034	87-72-1	3.0	0
Lindane.....	D013	58-89-9	0.4	0
Methoxychlor.....	D014	72-43-6	10.0	0
Methyl ethyl ketone	D035	78-93-3	200.0	0
Nitrobenzene.....	D036	98-95-3	2.0	0
Pentachlorophenol	D037	87-86-5	100.0	0
Pyridine.....	D038	110-86-1	5.0	0
Tetrachloroethylene	D039	127-18-4	0.7	0
Toxaphene.....	D015	8001-35-2	0.5	0
Trichloroethylene.....	D040	79-01-8	0.5	0
2,4,5-Trichlorophenol.	D041	95-95-4	400.0	0
2,4,6-Trichlorophenol.	D042	88-06-2	2.0	0
2,4,5-TP (Silvex).	D017	93-72-1	1.0	0
Vinyl chloride.....	D043	75-01-4	0.2	0

Hazardous waste number

2 Chemical abstracts service number

3 Quantitation limit is greater than the calculated regulatory level. The quantitation limit therefore becomes the regulatory level.

⁴ If o-, m- and p-Cresol concentrations cannot be differentiated, the total cresol (D026) concentration is used. The regulatory level of total Cresol is 200 mg/l

PLEASE NOTE THE CHEMICAL COMPOSITION TOTAL IN THE MAXIMUM COLUMN MUST BE GREATER THAN OR EQUAL TO 100 PERCENT.

TOTAL 100

F. IDENTIFY THE HEALTH HAZARD CHARACTERISTICS FROM THE TABLE BELOW:

- | | |
|-------------------------------------|--|
| 1. IMMEDIATE (ACUTE) HEALTH HAZARD: | <input type="checkbox"/> NONE
<input type="checkbox"/> HIGHLY TOXIC
<input type="checkbox"/> TOXIC
<input type="checkbox"/> IRRITANT
<input type="checkbox"/> SENSITIZER
<input type="checkbox"/> CORROSIVE
<input type="checkbox"/> OTHER HAZARDOUS CHEMICALS WITH AN ADVERSE EFFECT ON A TARGET ORGAN THAT GENERALLY OCCURS RAPIDLY AS A RESULT OF SHORT TERM EXPOSURE AND WITH A SHORT DURATION |
| 2. DELAYED (CHRONIC) HEALTH HAZARD: | <input type="checkbox"/> CARCINOGENS
<input type="checkbox"/> OTHER HAZARDOUS CHEMICALS WITH AN ADVERSE EFFECT ON A TARGET ORGAN THAT GENERALLY OCCURS AS A RESULT OF LONG TERM EXPOSURE AND WITH A LONG DURATION |

3. IDENTIFY WHAT EXTREMELY HAZARDOUS SUBSTANCE(S)/COMPONENT(S) AS DEFINED IN SARA TITLE III SECTION 355 IS IN THE WASTE STREAM, ITS PERCENTAGE AND WEIGHT.

☐ NONE SUBSTANCE (LIST PERCENTAGES IN SECTION C)

4. IDENTIFY ANY TOXIC/HAZARDOUS (OSHA 1910.1000 SUBPART Z) REGULATED SUBSTANCES IN THE WASTE STREAM. LIST SUBSTANCES AND PERCENTAGE.

☐ NONE SUBSTANCE (LIST PERCENTAGES IN SECTION C)

*If Carcinogens are known to be in waste specify the carcinogenic substance in Section C.

- COMPRESSED GAS
FLAMMABLE SOLID
ORGANIC PEROXIDE
REACTIVE
SHOCK SENSITIVE
REACTIVE METALS (SPECIFY IN SECTION D)
OTHER DESCRIBE _____
NONE OF THE ABOVE

G. SHIPPING INFORMATION

- BULK LIQUID
BULK SLUDGE
OTHER DESCRIBE _____
BULK SOLID
DRUMS (POLY)
DRUMS (STEEL)

SHIPPING FREQUENCY QUANTITY PER _____

H. MANIFEST INFORMATION

IS THIS A D.O.T. HAZARDOUS MATERIAL? ☒ YES ☐ NO
PROPER D.O.T. SHIPPING NAME (Table 172.101 49 CFR) HAZARDOUS WASTE SOLID WASTE
D.O.T. HAZARD CLASS/DIVISION: 9
ADDITIONAL DESCRIPTIONS REQUIREMENTS (49 CFR 172.203) UNNA UN 3077 HQ UNITS (lb/kg) _____
EMERGENCY RESPONSE TELEPHONE NUMBER (172.604) 516-249-7150 PACKAGING GROUP (CIRCLE ONE) I II III III
CONTACT (Print Name) ELEEN PENNA

I. WASTE CHARACTERISTICS

- 1) IS THIS A USEPA HAZARDOUS WASTE? ☐ YES ☒ NO
2) USEPA HAZARDOUS WASTE NUMBER(S) _____
3) STATE HAZARDOUS WASTE NUMBER(S) 8725
4) DOES THIS WASTE CONTAIN ANY PCB'S? ☐ YES ☒ NO IF YES INDICATE LEVEL _____
5) DOES THIS WASTE CONTAIN ANY HERBICIDES, PESTICIDES, DIOXIN OR RESIDUES THEREOF? ☐ YES ☒ NO If yes, list compound and concentration in Section C.
6) IS THIS WASTE PROHIBITED FROM LAND DISPOSAL UNDER 40 CFR PART 268? ☐ YES ☒ NO
7) IS THIS WASTE SUBJECT TO ANY CALIFORNIA LIST RESTRICTIONS? ☐ YES ☒ NO If yes, check all applicable restrictions: HOC'S PCB'S ACID METALS CYANIDE
8) BENZENE NESHAP APPLICABILITY: Is this waste stream subject to management under National Emission Standards for Benzene Waste Operations as provided in 40 CFR Part 61, Subpart FF? ☐ YES ☒ NO If YES, give BENZENE Concentration: _____
9) DOES THIS WASTE CONTAIN ANY N-NITROSO-N-METHYLUREA? ☐ YES ☒ NO If YES, Concentration: _____
10) WAS THE INFORMATION ON THIS WPS BASED ON GENERATORS KNOWLEDGE ☒ OR ACTUAL CHEMICAL ANALYSIS
11) ARE THERE ANY SPECIAL HANDLING INSTRUCTIONS FOR THE DISPOSAL OF THIS WASTE? ☐ YES ☒ NO If YES, Specify: _____

J. VIRGIN PETROLEUM CONTAMINATED SOIL AND MEDIA CERTIFICATION

I HEREBY CERTIFY THAT VIRGIN PETROLEUM PRODUCTS ARE THE ONLY SOURCE OF CONTAMINATION FOR THE WASTE STREAM DESCRIBED ON THIS WASTE PROFILE SHEET. BASED ON MY KNOWLEDGE AS GENERATOR, THIS MATERIAL DOES NOT EXCEED THE REGULATORY LEVELS FOR THE TOXICITY CHARACTERISTICS.

SIGNATURE [Signature]

K. AUTHORIZATION TO CORRECT WPS

I AUTHORIZE S&W WASTE INC. TO MAKE CORRECTIONS TO THIS WPS. SUCH CORRECTIONS BEING CONSISTENT WITH THE RESULTS OF SAMPLE ANALYSIS AND REGULATORY REQUIREMENTS. I UNDERSTAND THAT A CORRECTED COPY OF THE WPS WILL BE SENT TO ME.

SIGNATURE [Signature]

L. SPECIAL HANDLING COMMENTS

M. OFFICIAL USE ONLY

APPROVAL COMMITTEE

INITIALS DATE
ENV. _____
OPS. _____
TECH. _____

N. POLYCHLORINATED BIPHENYL (PCB)/HERBICIDE, PESTICIDE, INSECTICIDE/ALUMINUM AND REACTIVE METAL WARRANTY

I hereby warrant that the material transferred to S&W WASTE INC., for transportation, treatment, storage and/or disposal is not radioactive waste and is not contaminated by either POLYCHLORINATED BIPHENYL (PCB) at a level greater than 39 PPM or HERBICIDE/INSECTICIDE/PESTICIDE or Dioxins or Furans of any value unless it is listed in Section C and approved by S&W WASTE, INC., nor does it contain Elemental Aluminum or Reactive Metal Paste, Powder or Pigment unless it is listed in Section C and approved by S&W WASTE, INC. and hereby agree to indemnify and hold S&W WASTE, INC., harmless from any costs, damages or other liability resulting from breach of this warranty or any other terms and conditions of this Waste Material Profile Sheet.
O. The information on this Waste Material Profile Sheet (WMPS) may have been prepared by other individuals. By signing Section O of this WMPS I certify that all information, including any attached information, is complete and is an accurate representation of the waste and its known or suspected hazards.

DATE 1-28-94 PRINT NAME/TITLE JOHN RHODES HQ

GENERATOR'S SIGNATURE [Signature]

NYSDEC SPILL REPORT FORM

DEC REGION# 1 (Stony Brook) SPILL NUMBER 9704538
 SPILL NAME: OSWEGO OIL DEC LEAD: T/T/F
 CALLER'S NAME: JOHN LEDDY NOTIFIER'S NAME: JOHN LEDDY
 CALLER'S AGENCY: PROTEST ENTERPRISES NOTIFIER'S AGENCY: PROTEST ENTERPRISES
 CALLER'S PHONE: (516) 321-4670 EXT. NOTIFIER'S PHONE: (516) 321-4670 EXT.

SPILL DATE: 07/16/1997 TIME: 10:17
 CALL RECEIVED DATE: 07/16/1997 TIME: 10:47 RECEIVED BY CID #: 267

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> - Lbs	<u>0</u>
2) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>
3) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>
4) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>

SPILL LOCATION

PLACE: OSWEGO OIL
 STREET: 45 INTERSECTION STREET
 T/C/V: HEMPSTEAD CO: NASSAU
 CONTACT: JOHN RHODES
 PHONE: (516) 485-3900 EXT.

POTENTIAL SPILLER

NAME: OSWEGO OIL
 STREET: 45 INTERSECTION STREET
 CITY: HEMPSTEAD
 STATE: NY ZIP: 11550-
 CONTACT: JOHN RHODES
 PHONE: (516) 485-3900 EXT.

SPILL CAUSE

☐ Human Error ☒ Tank Test Failure* ☐ Tank Failure
☐ Traffic Accident ☐ Housekeeping ☐ Tank Overfill
☐ Equipment Failure ☐ Deliberate ☐ Other
☐ Vandalism ☐ Abandoned Drums ☐ Unknown

SPILL SOURCE

☐ Gas Station ☐ Private Dwelling ☒ Non-Maj Facility
☐ Passenger Vehicle ☐ Vessel ☐ Comm/Indust
☐ Comm. Vehicle ☐ Railroad Car ☐ Non-Comm/Instit
☐ Tank Truck ☐ Major Facility ☐ Unknown

RESOURCE AFFECTED

☒ On Land ☐ Groundwater ☐ Air
☐ In Sewer ☐ Surface Water**

SPILL REPORTED BY

☐ Responsible Party ☒ Tank Tester ☐ Local Agency
☐ Affected Persons ☐ DEC ☐ Federal Gov't
☐ Police Department ☐ Citizen ☐ Other
☐ Fire Department ☐ Health Dept.

** WATERBODY:

CALLER REMARKS: LINE TEST FAILURE ON 2 ABOVE GROUND TANKS

NASSAU CO FIRE MARSHALL ADVISED ALSO

TANK OWNER IS DIGGING UP LINE TO FIND THE PROBLEM

PBS Number	Tank Number	Tank Size	Test Method	Leak Rate
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

PRIMARY CONTACT CALLED DATE: TIME: hrs. REACHED DATE: TIME: hrs.
 SECONDARY CONT. CALLED DATE: TIME: hrs. FAXED BY CID#:

PIN #	T. & A	Cost Center	SR to Central Office
Cleanup Ceased	Meets St'ds YES	Last Inspection	Penalty NO
UST-CUI	ENF-INIT	INVES-COM	CAP
UST Trust Eligible NO	Site: A <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/>	Resp. Party 1 2 3 <input checked="" type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Reg Close Date 09/09/1997

Created on 07/16/1997 Last Updated on 09/10/1997 Is Updated? NO
 Date Printed: 07/19/2001

EDO

DATA INPUT []

NYSDEC SPILL REPORT FORM

DEC REGION# 1 (Stony Brook) SPILL NUMBER 9704538
SPILL NAME: OSWEGO OIL DEC LEAD: 1/1/F
CALLER'S NAME: JOHN LEDDY NOTIFIER'S NAME: JOHN LEDDY
CALLER'S AGENCY: PROTEST ENTERPRISES NOTIFIER'S AGENCY: PROTEST ENTERPRISES
CALLER'S PHONE: (516) 321-4670 EXT. NOTIFIER'S PHONE: (516) 321-4670 EXT.

SPILL DATE: 07/16/97 TIME: 10:17
CALL RECEIVED DATE: 07/16/97 TIME: 10:47 RECEIVED BY CID #: 267

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> Lbs	<u>0</u>
2) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>
3) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>
4) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>

SPILL LOCATION	POTENTIAL SPILLER
PLACE: <u>OSWEGO OIL</u>	NAME: <u>OSWEGO OIL</u>
STREET: <u>45 INTERSECTION ST</u>	STREET: <u>45 INTERSECTION ST</u>
TIC/V: <u>HEMPSTEAD</u> CO: <u>NASSAU</u>	CITY: <u>HEMPSTEAD</u>
CONTACT: <u>JOHN RHODES</u>	STATE: <u>NY</u> ZIP: <u>11550</u>
PHONE: <u>(516) 485-3900</u> EXT. <u> </u>	CONTACT: <u>JOHN RHODES</u>
	PHONE: <u>(516) 485-3900</u> EXT. <u> </u>

SPILL CAUSE	SPILL SOURCE
Human Error	Gas Station
Traffic Accident	Private Dwelling
<u>Equipment Failure</u>	Passenger Vehicle
Vandalism	Comm. Vehicle
Tank Test Failure*	Tank Truck
Housekeeping	Major Facility
Deliberate	Non-Maj Facility
Abandoned Drums	Comm/Indust
	Non-Comm/Instt
	Unknown

RESOURCE AFFECTED	SPILL REPORTED BY
<u>On Land</u>	Responsible Party <u>Tank Tester</u>
In Sewer	Affected Persons <u>DEC</u>
Groundwater	Police Department <u>Citizen</u>
Surface Water**	Fire Department <u>Health Dept.</u>
Air	Local Agency
	Federal Gov't
	Other

**WATERBODY:

CALLER REMARKS: LINE TEST FAILURE ON 2 ABOVE GROUND TANKS (20,000)
NASSAU CO FIRE MARSHALL ADVISED ALSO. TANK OWNER IS DIGGING UP LINE TO FIND PROBLEM

Prior Spill History @ this Location. (90-03084 (JEH) please
TANK OWNER IS DIGGING UP LINE TO FIND THE PROBLEM. site impacted by adjacent

PBS Number	Tank Number	Tank Size	Test Method	Leak Rate
<u> </u>	<u> </u>	<u>line</u>	<u>HEZ I</u>	<u> </u>

OK to close. 7/16/97

PRIMARY CONTACT CALLED DATE: TIME: hrs. REACHED DATE: TIME: hrs.
SECONDARY CONT. CALLED DATE: TIME: hrs. FAXED BY CID#: 267

PIN #	T & A	Cost Center	ISR to Central Office
Cleanup Ceased	Meets St'ds	NO	Last Inspection
RP-CUI	ENF-INIT	INVS-COM	CAP
UST Trust Eligible	NO	Site: A B C D E	Resp. Party 1 2 3 4 5 6
Reg Close Date	7/16/97		
Created on	07/16/97	Last Updated on	07/16/97
Date Printed:	07/16/97	Is Updated?	YES
EDO	DATA INPUT I I		

9/1/97 closed 7/16/97

RECEIVED

AUG 11 1997

REG 1 - OIL SPILL

Oswego Oil Service Corp
45 Intersection Street
Hempstead, New York 11550

August 7, 1997

New York State Department of Environmental Conservation
Cathy A. Gibbons
Building 40 SUNY
Stony Brook, New York 11790--2356

Dear Ms Gibbons:

RE: Spill #97-04538, Oswego Oil

45 Intersection Street, Hempstead, N.Y.
In reference to the above spill, a contractor, James Woerner, Inc., was engaged to make the necessary repairs which consisted of excavating a buried line, locating the failed area which was a two inch threaded pipe coming off the main line, removing the threaded pipe and welding a patch over the area. In the course of excavation soil that was contaminated was segregated and removed by Waste Recycling Solutions 129 Peconic Avenue Riverhead, NY (NYSDEC 364 Transporter Permit No. 1A-415). All the above work was done under the supervision of and with the consent of the Nassau County Fire Marshall Office.

Before the line was put in operation the line was tested by Pro Test Enterprises, 331 Walker Street, N. Babylon, NY 11704 upon passing the test the Nassau County Fire Marshall Office was notified and approved reopening the line.

If you have any questions, please feel free to contact myself at 516-485-3900.

Sincerely,



Oswego Oil Service Corp
John Rhodes

*** NON-HAZARDOUS ***
DOCUMENT OF CARGO

YSDEC spill number

97-04538

Date 7/23/97

Document Number No 0083

Tractor or Truck License Number XW 6611

Tanker or Semi-Trailer License Number N/A

GENERATOR

Company Name: Oswego Oil Company

Company Address: 45 Intersection Street Hempstead, N.Y.

Telephone: 516 588-2251

Contact: Jim Warner

TRANSPORTER

Waste Recycling Solutions 129 Peconic Avenue Riverhead, N.Y. (516) 369-9601

Maggio Sanitation 9 Commercial Blvd. Medford, N.Y. (516) 636-6300

B/P Wreckers 50 Yennecott Drive Southold, N.Y. (516) 734-7939

EPA Transporter I.D. No. N/A

NYSDEC 364 Transporter Permit No. 1A-415

TREATMENT/RECYCLING/DISPOSAL FACILITY

Facility Name: T-T Materials

Facility Address: Mid-Hudson Recycling Park Wingdale N.Y.

Telephone: 914-832-3434

Contact: Art Connelly

WASTE INFORMATION

Description and Quantity

Approx. 10 cu. yds. of non-hazardous
(#2 fuel oil) petroleum contaminated soil
generated during OST removal at

Oswego Oil Company

45 Intersection Street

Hempstead, N.Y.

Coded as W816

Generator

Date 7/23/97

Transporter

Date

Treatment/Recycling/Disposal Facility

Date

NYSDEC SPILL REPORT FORM

DEC REGION# 1 (Stony Brook) SPILL NUMBER 9925536
 SPILL NAME: OSWEGO OIL SERVICE CORP DEC LEAD: ACAMPORA 99-185
 CALLER'S NAME: NICK ACAMPORA NOTIFIER'S NAME: NICK ACAMPORA
 CALLER'S AGENCY: DEC SPILLS MOSF COORD NOTIFIER'S AGENCY: DEC SPILLS MOSF COORD
 CALLER'S PHONE: (516) 444-0322 EXT. NOTIFIER'S PHONE: (516) 444-0322 EXT.

SPILL DATE: 03/28/2000 TIME: 12:00
 CALL RECEIVED DATE: 03/28/2000 TIME: 12:00 RECEIVED BY CID #:

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> - Lbs	<u>Unknown</u>
2) LUBE OIL	<u>Pet-Haz-Other-Unk.</u>	<u>Unknown</u>	<u>Gal</u> - Lbs	<u>Unknown</u>
3) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>
4) <u> </u>	<u>Pet-Haz-Other-Unk.</u>	<u> </u>	<u>Gal</u> - Lbs	<u> </u>

SPILL LOCATION

PLACE: OSWEGO OIL SERVICE CORP
 STREET: 45 INTERSECTION STREET
 T/C/V: HEMPSTEAD CO: NASSAU
 CONTACT: JOHN RHODES
 PHONE: (516) 485-3900 EXT.

POTENTIAL SPILLER

NAME: OSWEGO OIL SERVICE CORP
 STREET: 45 INTERSECTION STREET
 CITY: HEMPSTEAD
 STATE: NY ZIP: 11550
 CONTACT: JOHN RHODES
 PHONE: (516) 485-3304 EXT.

SPILL CAUSE

☐ Human Error
☐ Accident
☐ Equipment Failure
☐ Vandalism
☐ Tank Test Failure*
☒ Housekeeping
☐ Deliberate
☐ Abandoned Drums
☐ Tank Failure
☐ Tank Overfill
☐ Other
☐ Unknown

SPILL SOURCE

☐ Gas Station
☐ Passenger Vehicle
☐ Comm. Vehicle
☐ Tank Truck
☐ Private Dwelling
☐ Vessel
☐ Railroad Car
☐ Major Facility
☒ Non-Maj Facility
☐ Comm/Indust
☐ Non-Comm/Instit
☐ Unknown

RESOURCE AFFECTED

☒ On Land
☐ In Sewer
☐ Groundwater
☐ Surface Water**
☐ Air

SPILL REPORTED BY

☐ Responsible Party
☐ Affected Persons
☐ Police Department
☐ Fire Department
☐ Tank Tester
☒ DEC
☐ Citizen
☐ Health Dept.
☐ Local Agency
☐ Federal Gov't
☐ Other

** WATERBODY:

CALLER REMARKS: DURING ROUTINE INSPECTION BY THE DEC WATER UNIT, INSPECTOR FOUND VARIOUS POSSIBLE VIOLATIONS. REQUESTED INSPECTION BY THIS UNIT. UPON INSPECTION, FOUND NUMEROUS SPILLS AND HOUSEKEEPING PROBLEMS. WILL CONTACT NCHD AND FM AND ADVISE.

PBS Number	Tank Number	Tank Size	Test Method	Leak Rate

PRIMARY CONTACT CALLED DATE: TIME: hrs. REACHED DATE: TIME: hrs.
 SECONDARY CONT. CALLED DATE: TIME: hrs. FAXED BY CID#:

PIN #	T & A	Cost Center	ISR to Central Office
Cleanup Ceased	Meets St'ds	NO	Last Inspection
CUI	ENF-INIT	INVS-COM	CAP
UST Trust Eligible	NO	Site: A <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E <input type="radio"/>	Resp. Party 1 2 <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6
Reg Close Date			

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
 DIVISION OF WATER - REGION ONE
 PHONE (631) 444-0421
 FAX # (631) 444-0424

*N. Acampora
Spills*

MEMO

To: K. Gomez, W. Spitz
 From: William OBrien *WOB*
 Subject: Oswego Oil Service, 45 Intersection Street, Hempstead
 Date: March 22, 2000

I inspected this SPDES facility today. The following comments refer to the attached diagram,

1. Product unloading area on street side of building. According to John Rhodes, Terminal Manager (?), this is used "sometimes". It consists of a concrete slab with a hose sitting on it adjacent to the sidewalk. The slab and adjoining grass are heavily stained with oil. Also note the adjacent storm drain in Intersection Street, the street slopes downhill from the unloading area to the drain. I didn't check the drain for product.
2. Loading Rack #3. Heavy oil contamination between rack and fence along former railroad right of way. Heavy oil contamination below rack. Uncovered buckets of oil, apparently under leaks (?) under rack. No storm water containment or separator for this rack.
3. 2x275, these are kerosene and maybe diesel tanks. The secondary containment is, in part, unmortared concrete blocks. The kerosene pump is resting on four concrete blocks. A second, unmarked pump may serve one of the tanks.
4. Loading Rack #2. Apparently abandoned. Oil contamination in the area.
5. Two vertical #2 fuel oil tanks in dike. I noticed product type, but not size marked on tanks. Dike floor below grade. Corners of dike floor not solid, but filled with something called "bontone" (?) That according to John Rhodes "lets water pass through, but swells if petroleum is present and stops flow". This is a SPDES violation. This is not on their permit. There is sheen on some water in the dike.
6. Product Handling Pumps. Extremely heavy oil contamination in this area. No secondary containment.
7. Underground Tanks. At least a couple. There may also be gasoline storage, as there is a pump marked unleaded gasoline at the rear of the building.
8. Loading Rack #1. This is surrounded by a somewhat discontinuous 'speed bump' type dike. Heavy oil contamination below the rack. This is apparently the 'active' rack.
9. General. Site is semi-paved with deteriorating concrete and asphalt and significant unpaved areas. The north end of the property is full of junk box trailers (contents?), oil trucks and general debris.

Recommendations:

Facility currently does not have a valid SPDES permit (expired 9/99), and has unpermitted outfalls. This is beyond handling with NOV, I would like to conduct a joint inspection with Nick Acampora and NCDH & NCFM. The site needs to be paved, remediated, have proper leak dikes and a SPDES Permit. This will require legal action for SPDES, Spills and probably PBS violations. I also think there are a few more violations for NCDH & NCFM.

11/24/1998 16:27 8436652433

SUBCON INC

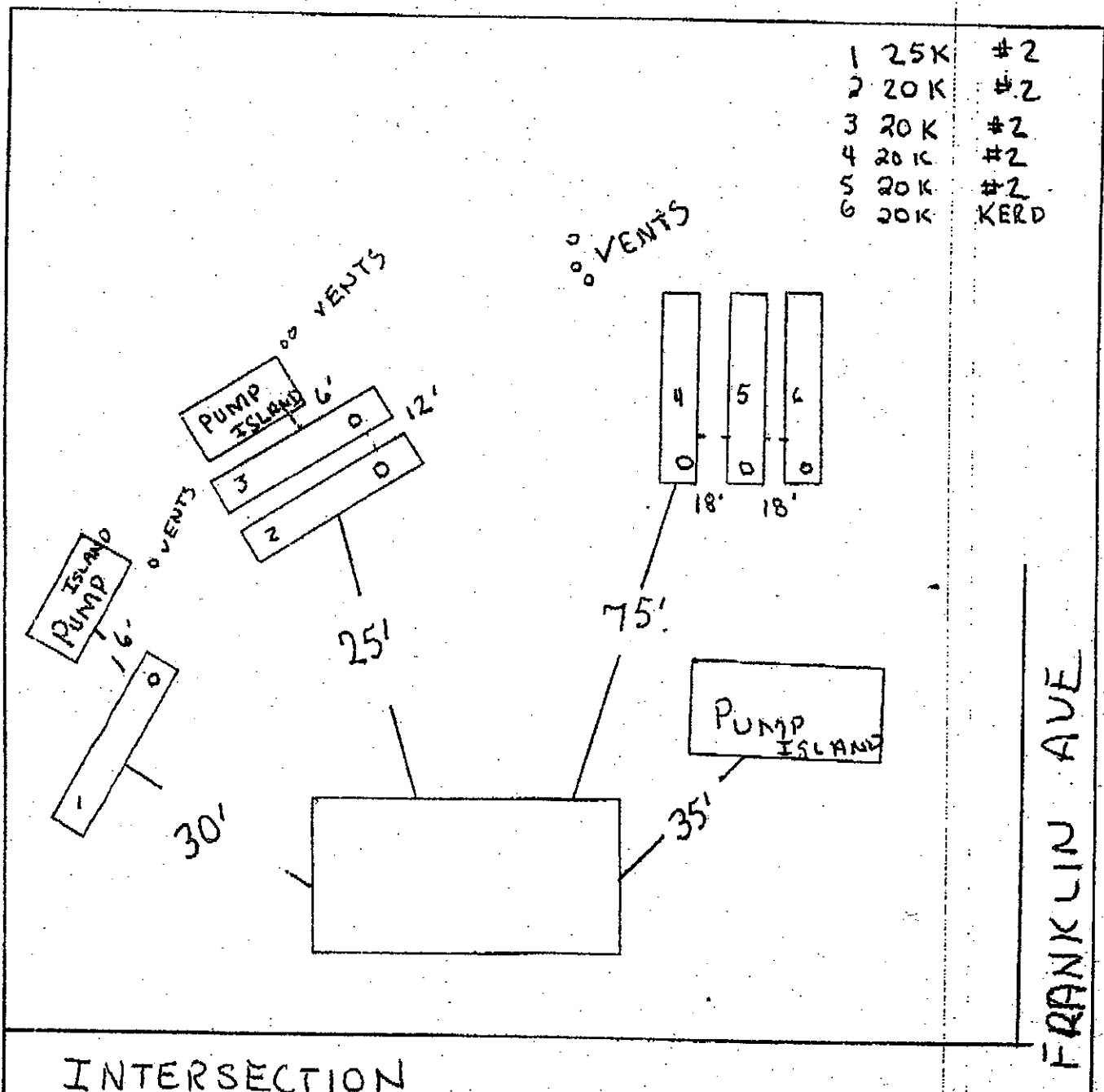
PAGE 01/01

SITE SKETCH

Work Order #: 1346-98
 Customer: OSWEGO OIL SERVICE
 Job Name: OSWEGO OIL SERVICE
 Job Address: 45 INTERSECTION ST
 Job City, State, Zip: HEMPSTEAD, NY 11550
 Comments: _____

Tank pad cover? asphalt/concrete/liftInside city limits? Yes ☒ No ☐Tanks bonded? Yes ☒ No ☐Closest Intersection INTERSECTION & FRANKLIN**CP 2369-98**

Please indicate on drawing the location of the buildings, all tanks, vents, how many islands, measurement in feet and surrounding streets.



NYSDEC Region 1, SUNY, Bldg. 40, Stony Brook, NY 11790-2356

☒ Field Notes ☐ Phone Conversation ☐ Meeting Notes Spill No. 99-255.36

Location			Representatives on site		time in	time out
Name OSWEGO OIL CO			DEC ALAMPORA		1105	1244
Address 45 INTERSECTION ST.			R. MAICKEL / NORM			
Town Hempstead			J. HICKMAN / NORM			
Phone						
Weather	Temperature	General conditions				
humidity	Cold	Sunny				
Dry	Fair	Partly Cloudy				
Humid	Warm	Cloudy				
Very humid	Hot	Rain / Snow				
			JOHN & PATRICIA RHODES			

Date	Time	Inspection Narrative
4/27/00	1105	<p>ALAMPORA ON SITE / MET W/ ABOVE REPRESENTATIVES - NORM CONDUCTED INSPECTION OF FACILITY. - SEE ATTACHMENT W/ VIOLATIONS. - SURFACE SPRINGS & OVERFILLS NOTED THROUGHOUT FACILITY. - AS PER MS. RHODES, REMOTE FILL POINT LOCATED OUTSIDE BLDG. IS NO LONGER USED. - EXCESSIVE WATER IN CONTAINMENT AREA. - OVERFILL OF TANK NOTED - SPILLAGE AROUND VENT LINE. - PRODUCT IN FILL PANS OF V/K TANKS. - FORTHWITH ORDER BEING ISSUED BY ALCPM. - FACILITY DROUGHT SHUT DOWN UNTIL FURTHER NOTICE.</p>
	1244	LEFT SITE
5/17/00	1617	<p>ALAMPORA LEFT MESSAGE FOR MR. & MRS. RHODES FOR COM BACK & STATUS.</p>
5/18/00	0931	<p>ALAMPORA HAD TELECON W/ JOHN RHODES. HE FEELS MAJORING OF CLEANUP HAS BEEN COMPLETED. SHE IS SICK PICKED. DORRIL KOST HAS BEEN HIRED TO INSPECT ABOVE GROUND TANKS.</p>

Contractor's Equipment	Contractor's Work Force	time in	time out

Site Sketch (Include North Arrow)

6/7/00

1439

- ARRIVED ON SITE
 - MET W/ RICK MARICHEL (W.F.M.)
 - JOHN RHODES (COSWEGCO)

- INSPECTED FACILITY
- FACILITY STILL CLOSED
- H/G PUMPS OUT OF SERVICE / MANWAYS OPEN FOR INSPECTION. AS PER JOHN RHODES - DARYL KOST (P.E.) HAS BEEN RETAINED TO INSPECT.
- SPILL AROUND TRANSFER PUMP. PARTIALLY CLEANED UP. SOIL AROUND P.O.D. HAS BEEN REMOVED TO APPROX 1.5' B.L.S. - ADD'L SOIL MUST BE REMOVED.
- INSPECTED ROCK PILES. DETERMINED WHERE PRODUCT LINES GO UNDER GROUND. CONCLUDE P.O.D. HAS BEEN COMPROMISED. CONTAMINATED SOIL ALSO FOUND. INSTRUCTED MR. RHODES TO EXCAVATE SOIL.
- WILL RE-INSPECT NEXT WEEK.

1525 - LEFT SITE.

7/6/2000

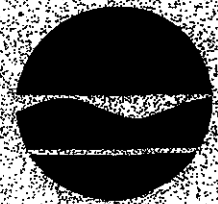
1344 - ARRIVED ON SITE. MET W/ MRS. RHODES.

- INSPECTED AREAS OF CONCERN
- ADD'L WORK REQ'D @ LANDING ROCK @ TWO EXCAVATED AREAS
- ADD'L WORK REQ'D @ THE TRANSFER PUMP - EXCAVATION IS APPROX 2' DEEP. ADD'L WORK IS NEEDED @ SOUTHERN H/GF.
- WILL RE-INSPECT NEXT WEEK. GAVE O.K. TO BACKFILL NORTHERN PORTION OF EXCAVATION TO STABILIZE PUMP.

1400 - LEFT SITE.

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790-2356

TEL # (516) 444-0320
 FAX # (516) 444-0373



REQUEST FOR CLEANUP NOTIFICATION FORM - FIELD ISSUE

Date April 27, 2000

IMMEDIATE CLEANUP REQUIRED

☒ **WITHIN 10-DAY PERIOD** (Unless otherwise specified, the 10-day period will begin with the above date.)

SPILL #: 99-25536 SPILL LOCATION: OSWEGO OIL SERVICE CORP.
Hempstead,

RESPONSIBLE PARTY INFORMATION:

Address: 45 INTERSECTION STREET, / HEMPSTEAD

Telephone: (516) 485-3900

Contact Person(s): PATRICIA / JOHN RAODES

FINDINGS: NUMEROUS FLO SPILLS ONTO SOIL THROUGHOUT
FACILITY (I.E. VENTS, TRANSFER PUMP, FUEL STORAGE
AREA, ROCK AREA) - ~~WHICH ARE BEING REMOVED FROM THE~~
~~EXISTING FACILITY~~

WORK TO BE PERFORMED: REMOVE ALL CONTAMINATED SOIL & PROPERLY
DISPOSE OF SAME. PROVIDE DISPOSAL MANIFESTS TO PROVE
PROPER DISPOSAL. ADVISE REP. OF THIS OFFICE UPON
COMPLETION OF WORK FOR REINSPECTION. REMOVE ALL
PRODUCT FROM TANKS, PROPERLY DISPOSE OF ALL LIQUID
IN OPEN CONTAINERS.

This letter serves as notice that the Department is directing you or your company to proceed with a cleanup of the above-referenced site within the time frame indicated. You may either hire a contractor or do the work yourself. However, you must use a contractor with a 364 Transporter Permit to transport the contaminated material to a proper disposal facility.

If you do not proceed with the required cleanup within the time frame noted above, this office will proceed with the cleanup of the site, and the New York State Department of Law will seek reimbursement along with an assessment of penalties from you in accordance with Article 12 of the New York State Navigation Law.

J. P. Phib
 Responsible Party/Agent

4/27/00
 Date

(Signature acknowledges receipt only)

[Signature]
 Spill Response Investigator

4/27/00
 Date

(Original to RP, Copy to DEC)

DEPT. OF FIRE PREVENTION
100 JEROME AVENUE
P.O. BOX 123
JUNIONDALE, NEW YORK 11553-0123



BUREAU OF FIRE PREVENTION
(516) 572-1000

ORDER TO REMOVE VIOLATIONS FORTHWITH

April 27 2000
(Date)

Insp. No. LIN 27191

TO Oswego Oil Service Corp.

Inspection of the premises at: 45 Intersection 5th

Hempstead N.Y. 11550

discloses the existence of certain violations of

of the Nassau County Fire Prevention Ordinances.

- 1.) Flammable / Combustible Liquid Storage tanks ~~do not~~ have valid registration certificates
 * ALL Flammable / Combustible storage tanks shall be registered with the Nassau County Fire Marshal.
 * The said tank registration must be posted at the place of business.
- 2.) There is no monthly inspection reports maintained at the facility
 * Conduct Monthly inspections of the facility and maintain a written record of the inspection.
- 3.) The above ground storage tanks are not marked as to when they were inspected and or tested,
 * Have tanks tested / inspected or Remove or properly abandon.

YOU ARE HEREBY ORDERED TO REMOVE SAID VIOLATIONS FORTHWITH

Section Penalties

Any person or business entity other than a corporation violating any provisions of this Article, or failing to comply therewith, or violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment or not more than one (1) year, or both for each and every offense. A corporation violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding five thousand dollars (\$5,000) for each and every offense. The imposition of the penalty for any violation of the Article shall not excuse the violation or permit it to continue, and each fifteen (15) days that the prohibited conditions are maintained shall constitute a separate offense.

Received by: [Signature]

(SIGNED)

Vonnie P. Hines

(PRINT NAME)

Pres.

(TITLE)

FIRE INSPECTOR
OFFICE OF THE FIRE MARSHAL
COUNTY OF NASSAU

F.I. Z. MAICHER

SH.# 103

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
899 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553-0128



BUREAU OF FIRE PREVENTION
(516) 572-1000

ORDER TO REMOVE VIOLATIONS FORTHWITH

April 27, 2000
(Date)

Insp. No. LID 27191

TO Oswego Oil Service Corp.

Inspection of the premises at: 45 Intersection St.

Hempstead N.Y. 11550

discloses the existence of certain violations ~~of~~ ^{Flammable} of the Nassau County Fire Prevention Ordinances.

- 4.) ALL /combustible storage tanks are overdue for tightness testing
* Have Flammable / combustible tanks "Tightness TESTED" or cease use and Remove or properly abandon.
- 5.) There is an accumulation of water in the "Dike Area".
* Remove the water and dispose of properly.
* Maintain the "Bond Tone" as required.
- 6.) There is evidence of "Product" spills on the property.
* Clean up and dispose of properly all "Spills".
* ALL Spills shall be reported to the Fire Marshal within two hours of the spill.

5/1 YOU ARE HEREBY ORDERED TO REMOVE SAID VIOLATIONS FORTHWITH
Section Penalties as stated

Any person or business entity other than a corporation violating any provisions of this Article, or failing to comply therewith, or violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment not more than one (1) year, or both for each and every offense. A corporation violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding five thousand dollars (\$5,000) for each and every offense. The imposition of the penalty for any violation of the Article shall not excuse the violation or permit it to continue, and each fifteen (15) days that the prohibited conditions are maintained shall constitute a separate offense.

Received by: [Signature]
(SIGNED)
James Ryan
(PRINT NAME) (TITLE)
FIRE INSPECTOR
OFFICE OF THE FIRE MARSHAL
COUNTY OF NASSAU

F.I. _____ SH.# _____

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
899 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553-0128



BUREAU OF FIRE PREVENTION
(516) 572-1000

ORDER TO REMOVE VIOLATIONS FORTHWITH

April 23, 2000
(Date)

Insp. No. L10 22191

TO Oswego Oil Service Corp.

Inspection of the premises at: 45 Intersection ST.

Hempstead N.Y. 11550
discloses the existence of certain violations of the Nassau County Fire Prevention Ordinances.

- 7.) The Fixed Fire Extinguishing system has not been test or inspected.
* Provide documentation as to the type of system and have it inspected and tested. This inspection/test shall be witnessed by the Fire Marshal.
- 8.) All the fill parts for all the underground Flammable/combustible storage tanks shall be marked as to the product contained therein.
- 9.) As the combustible/Flammable storage tanks are not registral with the Fire Marshal Cease use and empty in a legal manner. No Disposing.

YOU ARE HEREBY ORDERED TO REMOVE SAID VIOLATIONS FORTHWITH

Section Penalties

Any person or business entity other than a corporation violating any provisions of this Article, or failing to comply therewith, or violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment not more than one (1) year, or both for each and every offense. A corporation violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding five thousand dollars (\$5,000) for each and every offense. The imposition of the penalty for any violation of the Article shall not excuse the violation or permit it to continue, and each fifteen (15) days that the prohibited conditions are maintained shall constitute a separate offense.

Received by:

J. H. Rhule
(SIGNED)

Vera P. P. P.
(PRINT NAME) (TITLE)

FIRE INSPECTOR
OFFICE OF THE FIRE MARSHAL
COUNTY OF NASSAU

F.I. R. Marchal SH.# 123

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
899 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553-0128



BUREAU OF FIRE PREVENTION
(516) 572-1000

ORDER TO REMOVE VIOLATIONS FORTHWITH

4/27/2000
(Date)

Insp. No. 27191

TO Oswego Oil Service Corp

Inspection of the premises at: 45 Intersection St., Hempstead, NY

discloses the existence of certain violations of ART. II of the Nassau County Fire Prevention Ordinances.

- ① There is an excessive amount of combustible materials stored in the above location in an disorderly manner
- ② All combustibles shall be stored in a orderly manner and all waste is to be disposed of forthwith
- ③ There shall be no extension cords used in place of permanent electrical wiring
- ④ Remove all extension cords at once.
- ⑤ All fire extinguishers shall be serviced as needed or not less than annually
- ⑥ All fire extinguishers shall be mount and accessible for use at all times.
- ⑦ All electrical connections shall be in accordance with the National Electric Code. There shall be no open wiring or other modifications to the electrical wiring at the above location.

YOU ARE HEREBY ORDERED TO REMOVE SAID VIOLATIONS FORTHWITH

Section Penalties

Any person or business entity other than a corporation violating any provisions of this Article, or failing to comply therewith, or violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment not more than one (1) year, or both for each and every offense. A corporation violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding five thousand dollars (\$5,000) for each and every offense. The imposition of the penalty for any violation of the Article shall not excuse the violation or permit it to continue, and each fifteen (15) days that the prohibited conditions are maintained shall constitute a separate offense.

Received by: J. P. P.
(SIGNED)
James P. P. Pass
(PRINT NAME) (TITLE)

FIRE INSPECTOR
OFFICE OF THE FIRE MARSHAL
COUNTY OF NASSAU

F.I. James P. P. SH.# 107

FC-100-101055

NASSAU COUNTY FIRE COMMISSION
OFFICE OF FIRE MARSHAL
899 JERUSALEM AVENUE
P.O. BOX 128
UNIONDALE, NEW YORK 11553-0128



BUREAU OF FIRE PREVENTION
(516) 572-1000

ORDER TO REMOVE VIOLATIONS FORTHWITH

4/27/2000
(Date)

Insp. No. 27191

TO OSWEGO O.I. Service Corp.

Inspection of the premises at: 45 INTERSECTION ST., HEMPSTAD, NY

discloses the existence of certain violations of the Nassau County Fire Prevention Ordinances.

- ⑧ there shall be no combustible storage under any staircase
- ⑨ Remove all combustible storage under existing staircase
- ⑩ there shall be no flammable or combustible storage within the above noted location
- ⑪ Remove all ~~flamm~~ containers with any flammable or combustible liquids from the building immediately.
- ⑫ there shall be no combustible storage within five feet of any electrical panels, hot water heaters, and/or heating plants.
- ⑬ Remove all combustible materials from within five feet of all electrical panels, hot water heaters and/or heating plants.
- ⑭ Repair and maintain all burning cables located at the dispensing rack at the above location.

YOU ARE HEREBY ORDERED TO REMOVE SAID VIOLATIONS FORTHWITH

Section Penalties

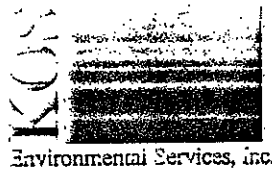
Any person or business entity other than a corporation violating any provisions of this Article, or failing to comply therewith, or violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding one thousand dollars (\$1,000) or by imprisonment not more than one (1) year, or both for each and every offense. A corporation violating or failing to comply with any order or regulation made thereunder, shall upon conviction be guilty of a misdemeanor punishable by a fine not exceeding five thousand dollars (\$5,000) for each and every offense. The imposition of the penalty for any violation of the Article shall not excuse the violation or permit it to continue, and each fifteen (15) days that the prohibited conditions are maintained shall constitute a separate offense.

Received by: [Signature]
(SIGNED)
John P. Puccio P.O.
(PRINT NAME) (TITLE)

FIRE INSPECTOR
OFFICE OF THE FIRE MARSHAL
COUNTY OF NASSAU

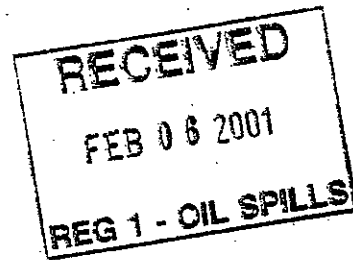
F.I. [Signature] SH.# 107

FC-1844-C-1095



February 2, 2001

Mssrs. Nick Acampora and William O'Brien
NYSDEC
Bldg. 40 - S.U.N.Y.
Stony Brook, N.Y. 11790



**Re: Oswego Oil Corp.
45 Intersection Street
Hempstead, N.Y.**

Dear Sirs:

On November 28, 2000 a joint meeting was held at Oswego Oil Service Corp. between Mssrs. N. Acampora and W. O'Brien of the NYSDEC, Darrel J. Kost P.E. (consultant for Oswego Oil Service Corp.) and Mr. John Rhodes of Oswego Oil Service Corp. The purpose of the meeting was to inspect the facility with respect to SPDES, Bulk Storage and spill requirements.

The results of the inspection identified the following issues:

Item 1 - Loading Rack at Westerly Side of Property

NYSDEC Issue - if this loading rack is going to be active it would be necessary to provide containment for loading/unloading of trucks as well as additional corrective actions needed to the existing pavement.

Response - There are no present or future plans to make this loading area active. The area will remain as it presently is.

Item 2 - Containment Area for ASTs

NYSDEC Issue - Existing "Bondtone" material located within the dike area needs to be removed and replaced with concrete.

Response - The "bondtone" material was removed and replaced with concrete in December, 2000.

Item #3 - Existing utility pole located within containment area

NYSDEC Issue - The wooden utility pole within the dike area may allow a discharge to penetrate beneath the dike floor area.

Response - The contact area between the concrete dike floor and the wooden utility pole will be sealed and inspected periodically. The placement of this pole was previously approved by the NCFM at the time of plan submission.

Item #4 - Paving of Loading Rack area

NYSDEC Issue - The loading rack area pavement and containment berm are in poor condition and in need of repair with regard to spill containment and prevention.

Response- Oswego Oil is scheduling to repave and repair the loading rack area this spring/summer of 2001.

Item #5 - Paving of Off-loading area

NYSDEC Issue - The off-loading area for the underground storage tanks is not paved and susceptible to a discharge of oil with respect to soil and/or groundwater.

Response - Oswego Oil will submit plans to the NCFM in the spring of 2001 for their approval regarding the paving/berming of this area. Subsequent to NCFM approval, Oswego Oil will pave this area in the summer of 2001.

Item #6 - Paving & Containment at Pump location (northeast)

NYSDEC Issue - The transfer pump area was recently excavated regarding the removal of contaminated soil. In order to minimize any future spills in this area, it was recommended that this area be paved and have proper containment.

Response - Oswego Oil will include this area with its plan submission to the NCFM in the spring of 2001. Improvement to this area will be made in the summer of 2001

Item #7 - Additional excavation of contaminated soil at east end of loading rack

NYSDEC Issue - The open excavation at the east end of the loading rack required an additional two feet of soil removal.

Response - This area was excavated, inspected by the NYSDEC and backfilled in December, 2000

Item #8 - Abandonment of Existing Diesel USTs

NYSDEC Issue - There are two existing diesel USTs that have not been used in years. These USTs require proper abandonment.

Response - Oswego Oil will properly abandon these USTs in Spring/Summer of 2001

Item #9 - Bailing of Monitoring Wells on a daily basis

NYSDEC Issue - Three monitoring wells were found to have floating product. These wells require bailing of product on a daily basis until a course of action is developed.

Response - Oswego Oil has been "bailing" these wells on a daily basis and has kept a log regarding the amount of oil recovered.

Item # 10 - Fingerprinting of oil sample from westerly monitoring well

NYSDEC Issue - A sample of "blackish" colored liquid was removed from a monitoring well on the westerly side of the facility. Due to groundwater contamination issues associated with an adjacent LIPA site, it was recommended to identify the liquid removed from the well. Subsequent to identification, remediation requirements would be discussed.

Response - The liquid was identified as "weathered #2 fuel oil or diesel fuel" by EcoTest Laboratories (analysis attached).

Item #11 - SPDES Application

NYSDEC Issue - A SPDES application must be submitted for this facility.

Response - Oswego Oil will submit a SPDES application by the end of February, 2001.

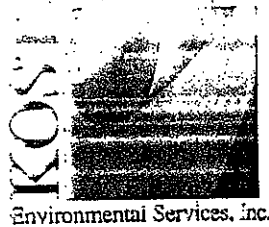
This information should summarize the items discussed at the 11/28/00 meeting. If additional information or corrections are needed, please contact me at 631-298-2292.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Darrel J. Kost". The signature is stylized with a large, looped "D" and a trailing flourish.

Darrel J. Kost P.E.

cc. Mr. J. Rhodes
Mr. N. Damadeo



July 3, 2001

Mr. Nick Acampora
New York State Dept. of Env. Conservation
Bldg. 40 - SUNY
Stony Brook, New York 11790

Re: **Subsurface Investigation**
Oswego Oil Service Corp.
Hempstead, N.Y.
Spill # 00-25127

Dear Mr. Acampora:

As per our conversation regarding the Oswego Oil Service (OOS) site, a **Subsurface Investigation** will be performed to determine if any off-site contamination has occurred. Subsequent to that investigation, a Corrective Action Plan (CAP) will be submitted with respect to our findings.

The Subsurface Investigation work will include a geoprobe survey of the area as noted on the attached site plan. The geoprobe locations are based upon previous groundwater work performed at the site which indicates a southerly groundwater flow direction and a depth of thirty feet to water. Groundwater samples will be obtained from each geoprobe location and analyzed for STARS 8021 & 8270. No soil sampling is anticipated for this work effort. Subsequent to the geoprobe investigation, a determination will be made regarding the installation of any permanent monitoring wells and the need for corrective actions, if any.

Upon your review and concurrence of this planned scope for investigative work, we will commence work accordingly.

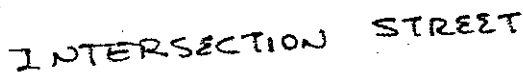
If you have any questions regarding this submittal, feel free to contact me at 631-298-2292.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Darrel J. Kost", written over a horizontal line.

Darrel J. Kost P.E.

cc. John Rhodes
Nicholas J. Damadeo
Mary E. Carpentiere



SEALY AVENUE

~~GW
(5204)~~

- + PROPOSED GEOPROBE LOCATIONS
⊕ EXISTING MONITORING WELLS
(Approximate locations)

Oswego Oil Service Co

7/3/0

ECOTEST LABORATORIES, INC.

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5777

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 205506.00

12/08/00

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil
COLLECTED BY: Client

DATE COL'D: 11/28/00 RECEIVED: 11/29/00

SAMPLE: Liquid sample, W-1, 11:00 am

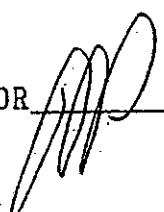
ANALYTICAL PARAMETERS
Diesel Range Organic % >95*

ANALYTICAL PARAMETERS

cc:

REMARKS: Diesel Range Organics by EPA Method 8015.
(Quantified as Diesel Fuel).

*Product appears to be weathered #2 Fuel Oil or Diesel Fuel.
Quality of match = Good.

DIRECTOR 

New York State Department of Environmental Conservation
Division of Legal Affairs, Regional Office
Building 40 - SUNY, Stony Brook, New York 11790
Phone: (631) 444-0260 Direct Line: (631) 444-0260
Website: www.dec.state.ny.us



Erin M. Crotty
Commissioner

July 15, 2002

via facsimile and U.S. Mail
Nicholas J. Damadeo, Esq.
14 Loft Road
Smithtown, NY 11787

Re: **Oswego Oil Service Corporation** (DEC Case No. R1-20000522-4)

Dear Mr. Damadeo:

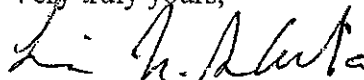
Pursuant to our meeting earlier today, in exchange for a suspended penalty payment of one thousand dollars (\$1,000) the Department has agreed to grant the above referenced Respondent an extension to come into compliance with its Schedule A requirements numbered 4 Paving of Loading Rack Area and number 5 Paving of Off-Loading Area. These requirements are to be completed no later than ninety (90) days from the date Respondent receives approval from both the Nassau County Fire Marshall's Office and the Nassau County Department of Health. Receipt of a bank certified check or money order for one thousand dollars (\$1,000) will resolve the outstanding Notice of Penalties Due dated March 27, 2002. If payment is not received by bank certified check or money order the check will be returned to your office and this matter will be deemed **unresolved**.

Also, as discussed at our meeting earlier today, it was agreed that Respondent will continue to bail monitoring well number 4 at least 3 to 5 times a week. Additional sampling will be done on monitoring wells 2 and 5 and a more aggressive floating product removal plan will be submitted to Nick Acampora by Monday, August 19, 2002. This plan must be approvable. Approvable means the plan is approvable by the DEC with minimal revision. "Minimal revision" shall mean that Respondent incorporates all revisions required by the DEC and resubmits the plan for approval within fifteen (15) calendar days after receipt of the written comments from the DEC.

July 11, 2002
Page 2 of 2

This is the final offer by the Department to resolve this matter and it will remain open until Wednesday, July 24, 2002.

Very truly yours,



Louise M. DeCandia
Assistant Regional Attorney

cc: W. O'Brien
N. Acampora
K.A. Murphy



August 10, 2001

Mr. Nick Acampora
NYS Dept. of Environmental Conservation
Bldg. 40 S.U.N.Y.
Stony Brook, N.Y. 11790-2356

Re: **Subsurface/Groundwater Investigation Report**
Oswego Oil Service Corp.
45 Intersection Street
Hempstead, New York

Dear Mr. Acampora:

Attached is the **Subsurface/Groundwater Investigation Report** for the Oswego Oil Service Corp. (OOSC), 45 Intersection Street, Hempstead, New York. This report was prepared in accordance with your July 30, 2001 correspondence.

Overall, it is recommended that OOSC continue bailing of the three wells that show floating product intermittently and additional on-site testing of the remaining wells for dissolved fractions. In addition, it is recommended that no remedial work be initiated until the Keyspan groundwater issue is defined and information made available through Freedom of Information.

The analytical results for some of the boring locations did exceed NYSDEC groundwater guidelines but that was expected based on previous site data. The concentrations were also in the same general magnitude of previous sampling results recorded in 1993 when spill #90-03084 was "closed".

If you have any questions, call me at 631-298-2292.

Yours truly,

A handwritten signature in dark ink, appearing to read "Darrel J. Kost", is written over a horizontal line. The signature is fluid and cursive.

Darrel J. Kost P.E.

cc. Mr. J. Rhodes
Mr. N. Damadeo



SUBSURFACE/GROUNDWATER INVESTIGATION REPORT

Oswego Oil Service Corp
45 Intersection Street
Hempstead, New York

January 2002

Prepared for: Oswego Oil Service Corp
45 Intersection Street
Hempstead, New York

Prepared By: Kost Environmental Services, Inc.
775 Ole Jule Lane
Mattituck, New York 11952

TABLE OF CONTENTS

	Page
I. Purpose and Scope	1
II. Historical Information	2
III. Subsurface Investigation	3
IV. Analytical Results	5
V. Discussion	9
VI. Conclusions	10

Appendix

I. PURPOSE & SCOPE

The purpose of this report is to discuss the **Subsurface/Groundwater Investigation** conducted for the site identified as Oswego Oil Service Corp., 45 Intersection Street, Hempstead, New York.

The scope of work included the installation of subsurface borings downgradient of the subject property to determine and evaluate off-site groundwater conditions. A review of available historical documentation was also included within this investigation.

This work was performed in accordance with an approved NYSDEC work plan submitted by Kost Environmental Services, Inc. (KES) on July 3, 2001 and agreed upon with conditions by the NYSDEC on July 30, 2001.

II. HISTORICAL INFORMATION

A review of the NYSDEC spill logs indicated that five spills were reported with respect to the Oswego site since 1986. These spills were identified as the following:

- 00-25127 7/14/00 Presence of floating product in monitoring wells. This groundwater investigation is a result of that spill reporting.
- 99-25536 3/28/00 Routine inspection by NYSDEC identified numerous spills and housekeeping problems. The items identified in this spill are presently being addressed i.e. recent removal of two abandoned USTs, upgrading of facility, etc.
- 97-04538 7/16/97 Line test failure from two ASTs to loading rack. The product line was repaired and approximately 20 c.y. of contaminated soil was removed and disposed of. Incident was "closed" in August 1997.
- 93-11634 12/29/93 Spill occurred at rack during fill operation. Spill cleaned up and closed on 2/24/94.
- 90-03084 6/14/90 Poor filling of tanks & leaky equipment. This spill investigation resulted in the installation of five monitoring wells and groundwater analysis for dissolved contaminants. The investigation identified gasoline, fuel oil/diesel and "unknown hydrocarbon" contaminants in the groundwater. In addition, the investigation identified "upgradient" sources that may have contributed to the Oswego on-site contamination. Contaminant levels ranged from the presence of floating product in well #2 to non-detectable concentrations in well #4. Wells #2 and #5 indicated the highest dissolved concentrations also. The spill was "closed" by the NYSDEC on January 9, 1996 with dissolved concentrations ranging from a high of 4,525ppb (BTEX) in well #2 to a low of non-detect in well #4 (see Appendix).

III. SUBSURFACE INVESTIGATION

On October 29, 2001, nine (9) subsurface borings to a depth of approximately thirty-seven (37) feet were performed at the subject site by Environmental Assessment & Remediations (EAR), of Patchogue, New York. The borings were located to the south (downgradient) of the Oswego property along the Village of Hempstead right-of-way for Intersection Street and Sealy Avenue. The borings were identified as borings GP-1 through GP-9 (See Figure 1 - Geoprobe Locations).

Groundwater samples (GP-1 thru GP-9) were obtained utilizing a direct push technique. The equipment was scrubbed in an Alconox solution and was rinsed with distilled water to prevent cross contamination. Soil samples were screened for odor by olfactory means. Visual inspection of all samples was also conducted to identify any obvious signs of contamination. Groundwater samples were obtained from each boring location using dedicated tubing and subsequent to removing three volumes of liquid.

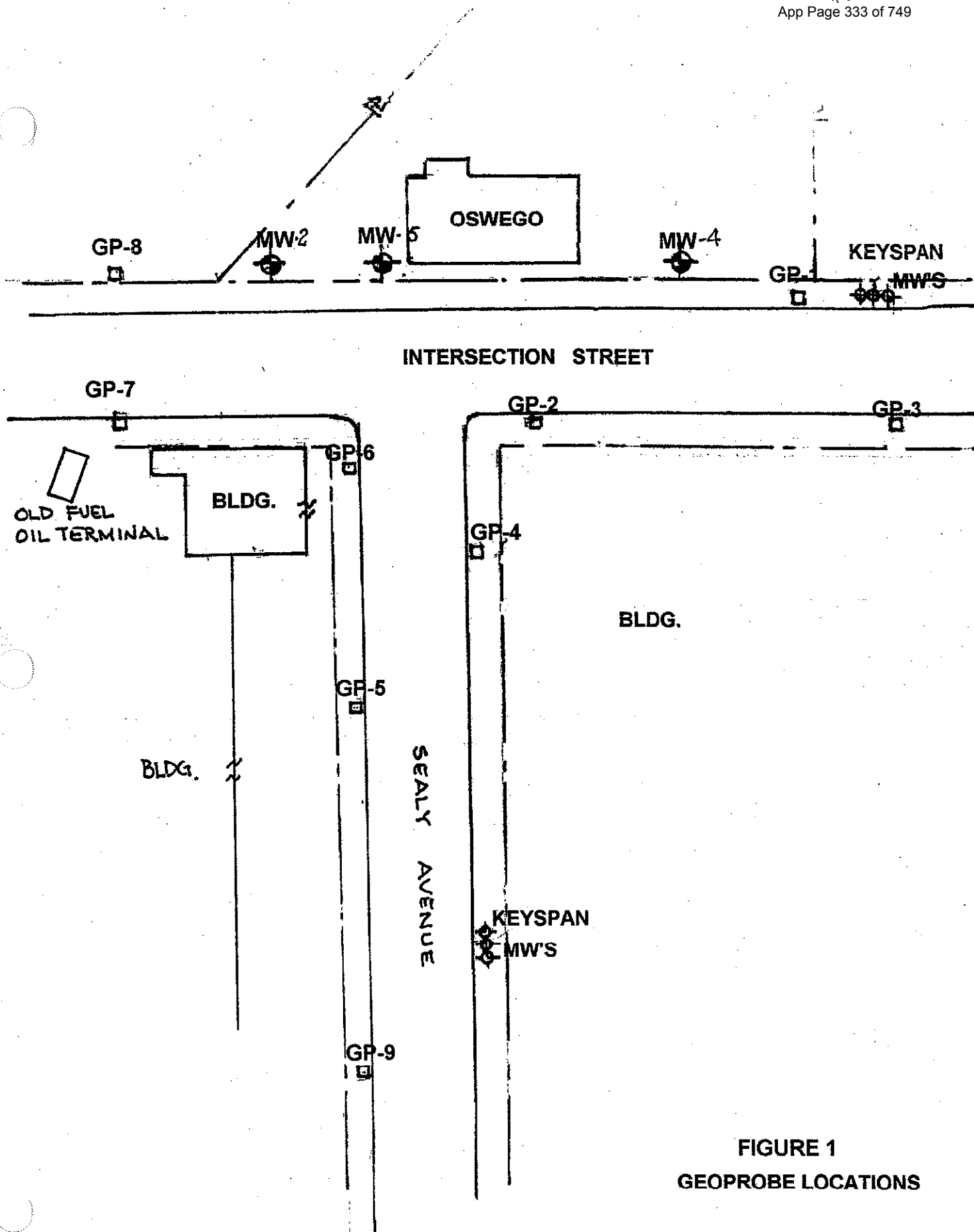


FIGURE 1
GEOPROBE LOCATIONS

III. ANALYTICAL RESULTS

The groundwater samples retained at the site were immediately refrigerated, and delivered to EcoTest Laboratories Inc. for analysis. The groundwater samples were analyzed for NYSDEC STARS Methods 8021 (Volatiles) and 8270 (Base/Neutrals).

The results of the laboratory analyses are summarized on **Table 1 - Groundwater Sample Analysis.**

GP-1 (Easterly property line for Oswego)

Detectable concentrations of **benzene**, toluene, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, 1,3,5-trimethylbenzene, 1,2,4-trimethylbenzene, **sec-butylbenzene**, **naphthalene**, MTBE, **2-methylnaphthalene**, acenaphthene, flourene and phenanthrene were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-2 (Southside of Intersection Street)

Detectable concentrations of **benzene**, toluene, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, 1,3,5-trimethylbenzene, tert-butylbenzene, 1,2,4-trimethylbenzene, **sec-butylbenzene**, isopropyltoluene, n-butylbenzene, **naphthalene**, MTBE, **2-methylnaphthalene**, acenaphthylene, acenaphthene, flourene, phenanthrene and anthracene were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-3 (East of Oswego property/Southside of Intersection St.)

Detectable concentrations of xylenes, 1,2,4-trimethylbenzene, naphthalene, **2-methylnaphthalene** and phenanthrene were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-4 (Eastside of Sealy Ave./South of GP-2)

Detectable concentrations of **benzene**, **toluene**, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, **1,3,5-trimethylbenzene**, **tert-butylbenzene**, **1,2,4-trimethylbenzene**, **sec-butylbenzene**, **isopropyltoluene**, **naphthalene**, **MTBE**, **2-methylnaphthalene**, **acenaphthylene**, **acenaphthene**, **flourene**, **phenanthrene**, **anthracene**, **fluoranthene**, **pyrene**, **benzo(a)anthracene**, **chrysene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene** and **benzo(a)pyrene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-5 (Westside of Sealy Ave./South of GP-4)

Detectable concentrations of **benzene**, **toluene**, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, **1,3,5-trimethylbenzene**, **1,2,4-trimethylbenzene**, **sec-butylbenzene**, **isopropyltoluene**, **naphthalene**, **MTBE**, **2-methylnaphthalene**, **acenaphthylene**, **acenaphthene**, **flourene**, **phenanthrene**, **anthracene**, **fluoranthene**, **pyrene**, **benzo(a)anthracene**, **chrysene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene** and **benzo(a)pyrene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-6 (Westside of Sealy Ave./North of GP-5)

Detectable concentrations of **benzene**, **toluene**, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, **1,3,5-trimethylbenzene**, **1,2,4-trimethylbenzene**, **sec-butylbenzene**, **isopropyltoluene**, **naphthalene**, **MTBE**, **2-methylnaphthalene**, **acenaphthene**, **flourene**, **phenanthrene**, **anthracene**, **fluoranthene**, **pyrene**, **benzo(a)anthracene** and **chrysene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-7 (West of westerly Oswego property line/Southside of Intersection St.)

Detectable concentrations of **benzene**, **toluene**, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, **1,3,5-trimethylbenzene**, **1,2,4-trimethylbenzene**, **isopropyltoluene**, **naphthalene**, **MTBE**, **2-methylnaphthalene**, **acenaphthylene**, **acenaphthene**, **flourene**, **phenanthrene**, **anthracene**, **fluoranthene**, **pyrene**, **benzo(a)anthracene**, **chrysene**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene** and **benzo(a)pyrene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-8 (50' west of westerly property line for Oswego/Northside of Intersection St.)

Detectable concentrations of **benzene**, **toluene**, **ethylbenzene**, **xylenes**, **isopropylbenzene**, **n-propylbenzene**, **1,3,5-trimethylbenzene**, **1,2,4-trimethylbenzene**, **isopropyltoluene**, **naphthalene**, **MTBE**, **2-methylnaphthalene**, **acenaphthylene**, **flourene**, **phenanthrene** and **pyrene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

GP-9 (Most southerly/Westside of Sealy Ave.)

Detectable concentrations of **xylenes**, **isopropylbenzene**, **1,2,4-trimethylbenzene**, **naphthalene**, **2-methylnaphthalene**, **acenaphthylene** and **phenanthrene** were observed. The "bolded" concentrations exceeded New York State Ambient Water Quality Standards and Guidance Values (See Table 1).

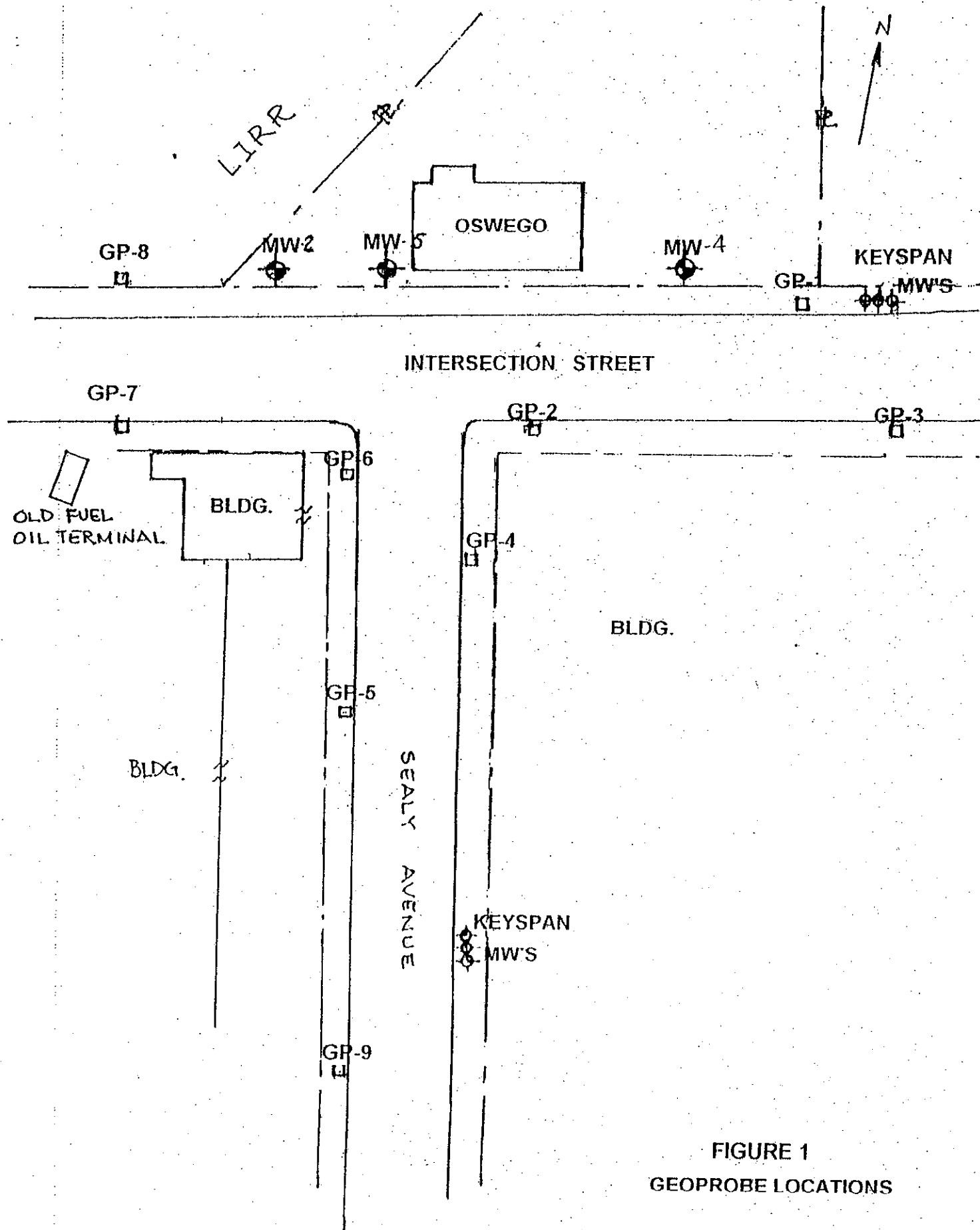


FIGURE 1
GEOPROBE LOCATIONS

GROUNDWATER ANALYSIS	GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	NYS/D GROUP WATER STYL ppb 0.07
BENZENE	68	64	<MDL	110	16	79	58	27	<MDL	
TOLUENE	2	40	<MDL	31	50	170	15	10	<MDL	5
ETHYLBENZENE	110	57	<MDL	130	850	520	870	1400	<MDL	5
XYLENES	31	170	5	270	1600	1400	1200	1800	22	15
ISOPROPYLBENZENE	19	13	<MDL	23	65	56	43	54	2	5
N-PROPYLBENZENE	25	12	<MDL	18	24	28	17	26	<MDL	5
1,3,5-TRIMETHYLBENZENE	4	8	<MDL	19	110	110	86	120	<MDL	5
TERT-BUTYLBENZENE	<MDL	1	<MDL	1	<MDL	<MDL	<MDL	<MDL	<MDL	5
1,2,4-TRIMETHYLBENZENE	55	20	7	110	360	320	250	340	7	5
SEC-BUTYLBENZENE	7	7	<MDL	6	2	5	<MDL	<MDL	<MDL	5
ISOPROPYLTOLUENE	<MDL	2	<MDL	7	7	11	2	3	<MDL	5
N-BUTYLBENZENE	<MDL	3	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	5
NAPHTHALENE	270	320	6	170	2900	3400	1800	2300	71	10
MTBE	3	240	<MDL	120	3	15	19	4	<MDL	10
2-METHYLNAPHTHALENE	130	15	9	110	180	70	240	150	5	
ACENAPHTHYLENE	<MDL	8	<MDL	26	11	<MDL	120	62	2	
ACENAPHTHENE	4	4	<MDL	39	87	37	240	<MDL	<MDL	20
FLUORENE	5	6	<MDL	42	53	27	100	28	<MDL	50
PHENANTHRENE	6	8	1	100	120	68	260	45	1	50
ANTHRACENE	<MDL	1	<MDL	30	34	19	59	<MDL	<MDL	50
FLUORANTHENE	<MDL	<MDL	<MDL	24	28	18	66	<MDL	<MDL	50
PYRENE	<MDL	<MDL	<MDL	43	52	33	110	11	<MDL	50
BENZO(A)	<MDL	<MDL	<MDL	15	18	11	39	<MDL	<MDL	0.002
ANTHRACENE	<MDL	<MDL	<MDL	14	16	10	35	<MDL	<MDL	0.002
CHRYSENE	<MDL	<MDL	<MDL	5	6	<MDL	13	<MDL	<MDL	0.002
BENZO(B)										
FLUORANTHENE	<MDL	<MDL	<MDL	5	6	<MDL	15	<MDL	<MDL	0.002
BENZO(K) FLUORANTHENE	<MDL	<MDL	<MDL	10	11	<MDL	26	<MDL	<MDL	ND
BENZO(A)PYRENE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	0.002
INDENO(1,2,3-CD)	<MDL	<MDL	<MDL							
PYRENE	<MDL	<MDL	<MDL							
DIBENZO(A,H)	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	NR
ANTHRACENE	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	NR
BENZO(GHI)	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL	
PERYLENE										

<MDL= less than method detection level

ND= non-detect

NR= not regulated

OSWEGO OIL
TABLE 1
GROUNDWATER SAMPLE ANALYSIS

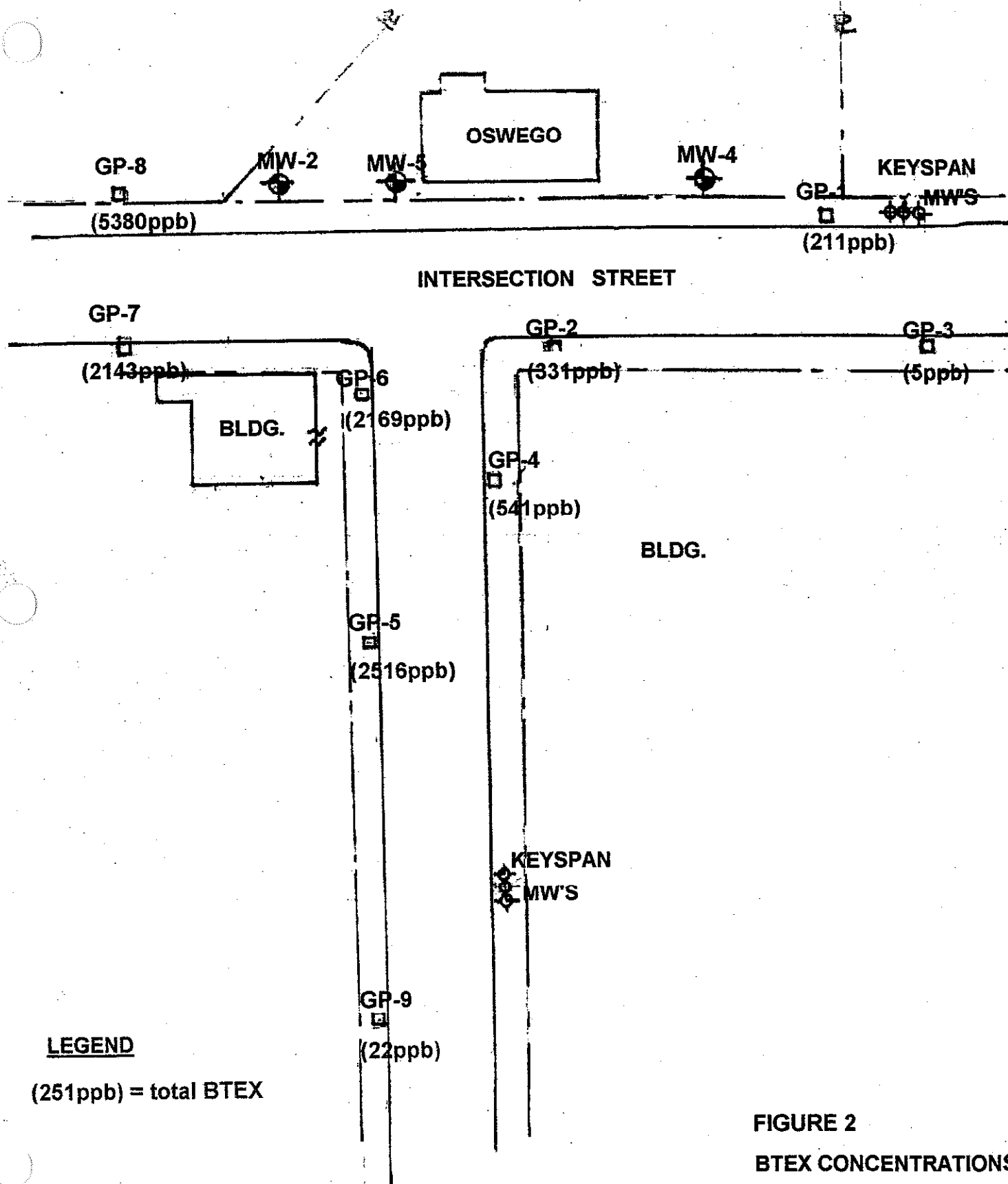


FIGURE 2
BTEX CONCENTRATIONS

IV. DISCUSSION

The off-site groundwater investigation has identified dissolved concentrations of BTEX ranging from 5380 ppb at GP-8 to a low of 5 ppb at GP-3. The dissolved plume extends approximately 250 feet to the southwest with its furthest extent unknown due to the presence of numerous structures throughout the area. The furthest westerly extent of the dissolved plume is also unknown due to the presence of numerous underground natural gas lines throughout the area. The easterly extent of the dissolved plume is approximately 50 feet to the east of the Oswego easterly property line. The northerly extent is also unknown due to the presence of off-site sources.

The present concentrations of total BTEX at GP-8 (5380 ppb) compared to the concentrations in 1994 at MW-2 (4525 ppb), when spill #90-03084 was "closed," are relatively of the same magnitude. MW-2 is approximately 50 feet to the east of GP-8. At the easterly sector, the concentrations of total BTEX at GP-1 (211 ppb) are slightly elevated from the concentrations in 1994 at MW-4 of non-detect BTEX.

There were two clusters of monitoring wells encountered during this investigation that were installed as part of the LILCO/Keyspan groundwater investigation regarding the Hempstead Gas Plant. This gas plant was previously located to the north and upgradient of the Oswego site. Recent discussion with the NYSDEC project manager, Mr. A. Omorogbe, who is overseeing this investigation, indicated that these wells have been sampled and analyzed. He also indicated that this information was not currently available through "freedom of information," but would be when the final report was issued in a year or so. It should be noted that the groundwater information regarding the gas plant investigation is important with respect to any possible actions undertaken at the Oswego site.

V. CONCLUSIONS & RECOMMENDATIONS

Based upon the sampling/analysis program and historical information, the following is concluded and recommended:

- The groundwater samples obtained from the nine boring locations identified some concentrations of volatile/semi-volatile compounds in all nine locations that exceeded New York State Ambient Water Quality Standards and Guidance Values. The highest concentrations of total VOC/SVOCs were detected in boring locations GP-5, GP-6, GP-7 and GP-8, which are all located to the south and west of the subject property. The relative magnitude of these concentrations are similar to groundwater concentrations identified in 1994 for spill #90-03084 which was "closed" on January 9, 1996.
- Historical information has documented possible upgradient sources as contributing to the Oswego groundwater conditions. One of these sources has been identified as the LILCO/Keyspan Hempstead Plant. There is an ongoing investigation by Keyspan and the NYSDEC to identify contamination resulting from this gas plant's operation. It is recommended that this information be made available as soon as possible before any further remedial actions are undertaken at the Oswego site.
- Recent monitoring of the wells located on the Oswego property has indicated the intermittent presence of floating product in the southerly wells i.e. W-2, W-4 and W-5. These wells are presently being checked daily and bailed if needed. It is recommended that these wells continue to be checked and bailed and that the remaining wells on the site be sampled and analyzed for dissolved contaminants.

APPENDIX
Analytical Results
Historical Documentation

ANALYTICAL RESULTS

ENVIRONMENTAL TESTING

Tel: (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlabs@aol.com Website: www.acotestlabs.com

LAB NO: 215660.01

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-1

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	3
Benzene	ug/L	68
Toluene	ug/L	2
Ethyl Benzene	ug/L	110
m + p Xylene	ug/L	26
o Xylene	ug/L	5
Xylene	ug/L	31
Isopropylbenzene	ug/L	19
Propylbenzene	ug/L	25
1,3,5-Trimethylbenzene	ug/L	4
1,2,4-Trimethylbenzene	ug/L	55
sec-Butylbenzene	ug/L	7
p-Isopropyltoluene	ug/L	<1
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	270
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR 

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, NY 11703 • (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.01

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead

COLLECTED BY: Client

DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-1
UNITS: ug/L

ANALYTICAL PARAMETERS

Naphthalene(sv)	150
2-Methylnaphthalene	130
Acenaphthylene	<1
Acenaphthene	4
Fluorene	5
Phenanthrene	6
Anthracene	<1
Fluoranthene	<1
Pyrene	<1
Benzo(a)anthracene	<1
Chrysene	<1
Benzo(b)fluoranthene	<1
Benzo(k)fluoranthene	<1
Benzo(a)pyrene	<1
Dibenzo(a,h)anthracene	<1
Indeno(1,2,3-cd)pyrene	<1
Benzo(ghi)perylene	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8270

DIRECTOR 

rn=

32007

NYSDOH ID# 10320

Page 2 of 2

ENVIRONMENTAL TEST LABS

11750 • (631) 422-5777 • FAX (631) 422-5770
Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.02

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-2

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	240
Benzene	ug/L	64
Toluene	ug/L	40
Ethyl Benzene	ug/L	57
m + p Xylene	ug/L	62
o Xylene	ug/L	110
Xylene	ug/L	170
Isopropylbenzene	ug/L	13
Propylbenzene	ug/L	12
1,3,5-Trimethylbenzene	ug/L	8
1,2,4-Trimethylbenzene	ug/L	20
sec-Butylbenzene	ug/L	7
p-Isopropyltoluene	ug/L	2
n-Butylbenzene	ug/L	3
Naphthalene(v)	ug/L	320
tert-Butylbenzene	ug/L	1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR 

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11700 • (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.02

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead

COLLECTED BY: Client

DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-2

UNITS: ug/L

ANALYTICAL PARAMETERS

ANALYTICAL PARAMETERS

Naphthalene(sv)	210
2-Methylnaphthalene	15
Acenaphthylene	8
Acenaphthene	4
Fluorene	6
Phenanthrene	8
Anthracene	1
Fluoranthene	<1
Pyrene	<1
Benzo(a)anthracene	<1
Chrysene	<1
Benzo(b)fluoranthene	<1
Benzo(k)fluoranthene	<1
Benzo(a)pyrene	<1
Dibenzo(a,h)anthracene	<1
Indeno(1,2,3-cd)pyrene	<1
Benzo(ghi)perylene	<1

cc:

REMARKS: EPA Method 8270

DIRECTOR 

rn=

32009

NYSDOH ID# 10320

Page 2 of 2

ECOTEST LABORATORIES, INC.

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5777

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.03

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-3

ANALYTICAL PARAMETERS

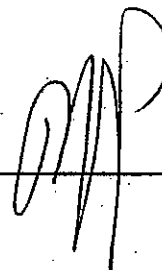
ter-ButylMethylEther	ug/L	<1
Benzene	ug/L	<1
Toluene	ug/L	<1
Ethyl Benzene	ug/L	<1
m + p Xylene	ug/L	3
o Xylene	ug/L	2
Xylene	ug/L	5
Isopropylbenzene	ug/L	<1
Propylbenzene	ug/L	<1
1,3,5-Trimethylbenzene	ug/L	<1
1,2,4-Trimethylbenzene	ug/L	7
sec-Butylbenzene	ug/L	<1
p-Isopropyltoluene	ug/L	<1
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	6
tert-Butylbenzene	ug/L	<1

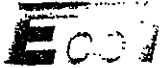
ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR





ENVIRONMENTAL TESTING

177 SHERBURN ST. NEW YORK, NY 10314-6300 TEL: (631) 422-5777 FAX: (631) 422-5770

 Email: ecotestlabs@a6.com Website: www.ecotestlabs.com

LAB NO: 215660.03

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-3
 UNITS: ug/L

ANALYTICAL PARAMETERS

ANALYTICAL PARAMETERS

Naphthalene(sv)	3
2-Methylnaphthalene	9
Acenaphthylene	<1
Acenaphthene	<1
Fluorene	<1
Phenanthrene	1
Anthracene	<1
Fluoranthene	<1
Pyrene	<1
Benzo(a)anthracene	<1
Chrysene	<1
Benzo(b)fluoranthene	<1
Benzo(k)fluoranthene	<1
Benzo(a)pyrene	<1
Dibenzo(a,h)anthracene	<1
Indeno(1,2,3-cd)pyrene	<1
Benzo(ghi)perylene	<1

cc:

REMARKS: EPA Method 8270

 DIRECTOR 

rn=

32011

NYSDOH ID# 10320

Page 2 of 2

ECOTEST LABS, INC.

ENVIRONMENTAL TESTING

300 SHEPHERD AVE., N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.04

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-4

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	120
Benzene	ug/L	110
Toluene	ug/L	31
Ethyl Benzene	ug/L	130
m + p Xylene	ug/L	130
o Xylene	ug/L	140
Xylene	ug/L	270
Isopropylbenzene	ug/L	23
Propylbenzene	ug/L	18
1,3,5-Trimethylbenzene	ug/L	49
1,2,4-Trimethylbenzene	ug/L	110
sec-Butylbenzene	ug/L	6
p-Isopropyltoluene	ug/L	7
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	770
tert-Butylbenzene	ug/L	1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR 

ECOTEST LABORATORIES, INC.

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • 631. 411. 1111

Email: ecotestlab@aol.com Website: www.ecotestlab.com

LAB NO: 215660.04

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-4
 UNITS: ug/L

ANALYTICAL PARAMETERS

Naphthalene(sv)	160
2-Methylnaphthalene	110
Acenaphthylene	26
Acenaphthene	39
Fluorene	42
Phenanthrene	100
Anthracene	30
Fluoranthene	24
Pyrene	43
Benzo(a)anthracene	15
Chrysene	14
Benzo(b)fluoranthene	5^^
Benzo(k)fluoranthene	5^^
Benzo(a)pyrene	10
Dibenzo(a,h)anthracene	<10
Indeno(1,2,3-cd)pyrene	<10
Benzo(ghi)perylene	<10

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8270

^^Total = 10 ug/L, unable to separate isomers.

DIRECTOR 

ECOTEST LABORATORIE

377 SHEFFIELD AVE., N. BASTON, MA 02125

Email: ecotestlab@aol.com Website: www.ecotestlab.com

LAB NO:215660.05

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead

COLLECTED BY: Client

DATE COL'D:10/29/01 RECEIVED:10/30/01

SAMPLE: Water sample, GP-5

ANALYTICAL PARAMETERS

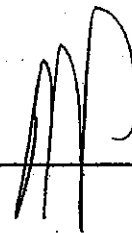
ter-ButylMethylEther	ug/L	3
Benzene	ug/L	16
Toluene	ug/L	50
Ethyl Benzene	ug/L	850
m + p Xylene	ug/L	820
o Xylene	ug/L	780
Xylene	ug/L	1600
Isopropylbenzene	ug/L	65
sec-Propylbenzene	ug/L	24
1,3,5-Trimethylbenzene	ug/L	110
1,2,4-Trimethylbenzene	ug/L	360
sec-Butylbenzene	ug/L	2
p-Isopropyltoluene	ug/L	7
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	2900
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR



ECOTEST

ENVIRONMENTAL TESTING

377 SHEPHERD AVE. NEW YORK, NY 10021-5777, FAX (800) 422-3770

Email: ecotest@ecotestlabs.com Website: www.ecotestlabs.com

LAB NO: 215660.05

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-5
 UNITS: ug/L

ANALYTICAL PARAMETERS

ANALYTICAL PARAMETERS

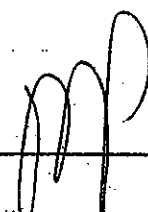
Naphthalene(sv)	580
2-Methylnaphthalene	180
Acenaphthylene	11
Acenaphthene	87
Fluorene	53
Phenanthrene	120
Anthracene	34
Fluoranthene	28
Pyrene	52
Benzo(a)anthracene	18
Chrysene	16
Benzo(b)fluoranthene	6**
Benzo(k)fluoranthene	6**
Benzo(a)pyrene	11
Dibenzo(a,h)anthracene	<10
Indeno(1,2,3-cd)pyrene	<10
Benzo(ghi)perylene	<10

cc:

REMARKS: EPA Method 8270

**Total = 12 ug/L, unable to separate isomers.

DIRECTOR



rn=

32015

NYSDOH ID# 10320

Page 2 of 2

ENVIRONMENTAL TESTS

1-800-451-7000 • (631) 422-5777 • FAX (631) 422-5773
E-mail: ecotestlabs@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.06

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-6

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	15
Benzene	ug/L	79
Toluene	ug/L	170
Ethyl Benzene	ug/L	520
m + p Xylene	ug/L	850
o Xylene	ug/L	510
Xylene	ug/L	1400
Isopropylbenzene	ug/L	56
Propylbenzene	ug/L	28
1,3,5-Trimethylbenzene	ug/L	110
1,2,4-Trimethylbenzene	ug/L	320
sec-Butylbenzene	ug/L	5
p-Isopropyltoluene	ug/L	11
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	3400
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR 

ECOTEST LABORATORIES INC.

ENVIRONMENTAL TESTING

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (831) 422-5777 • FAX (831) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.06

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-6
 UNITS: ug/L

ANALYTICAL PARAMETERS

ANALYTICAL PARAMETERS

Naphthalene(sv)	54
2-Methylnaphthalene	70
Acenaphthylene	<10
Acenaphthene	37
Fluorene	27
Phenanthrene	68
Anthracene	19
Fluoranthene	18
Pyrene	33
Benzo(a)anthracene	11
Chrysene	10
Benzo(b)fluoranthene	<10
Benzo(k)fluoranthene	<10
Benzo(a)pyrene	<10
Dibenzo(a,h)anthracene	<10
Indeno(1,2,3-cd)pyrene	<10
Benzo(ghi)perylene	<10

cc:

REMARKS: EPA Method 8270

DIRECTOR 

rn=

32017

NYSDOH ID# 10320

Page 2 of 2

ECOTEST LABORATORIES, INC.

ENVIRONMENTAL

100 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • (631) 422-5777 • FAX (631) 422-5777

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.07

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-7

ANALYTICAL PARAMETERS

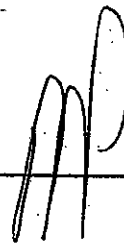
ter-ButylMethylEther	ug/L	19
Benzene	ug/L	58
Toluene	ug/L	15
Ethyl Benzene	ug/L	870
m + p Xylene	ug/L	530
o Xylene	ug/L	680
Xylene	ug/L	1200
Isopropylbenzene	ug/L	43
Propylbenzene	ug/L	17
1,3-Trimethylbenzene	ug/L	86
1,2,4-Trimethylbenzene	ug/L	250
sec-Butylbenzene	ug/L	<1
p-Isopropyltoluene	ug/L	2
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	1800
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR



SCOTEST LABORATORIES, INC.

ENVIRONMENTAL TESTING

300 SHEFFIELD AVE. • NEW BABYLON, NY 11790 • TEL: (516) 422-6770 • FAX: (516) 422-6770

Email: ecotestlab@aol.com Website: www.scotestlabs.com

LAB NO: 215660.07

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-7
UNITS: ug/L

ANALYTICAL PARAMETERS

1aphthalene(sv)	470
2-Methylnaphthalene	240
1acenaphthylene	120
1acenaphthene	240
Fluorene	100
Phenanthrene	260
Anthracene	59
Fluoranthene	66
Pyrene	110
Benzo(a)anthracene	39
Chrysene	35
benzo(b)fluoranthene	15**
benzo(k)fluoranthene	15**
Benzo(a)pyrene	26
Dibenzo(a,h)anthracene	<10
Indeno(1,2,3-cd)pyrene	<10
Benzo(ghi)perylene	<10

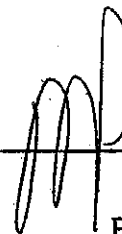
ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8270

**Total = 30 ug/L, unable to separate isomers.

DIRECTOR



rn=

32019

NYSDOH ID# 10320

Page 2 of 2

ECOTEST**ENVIRONMENTAL**

377 SHEFFIELD AVE. N. BAYLON, N.Y. 11703 • (831) 422-5777 • FAX (831) 422-5770

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO:215660.08

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D:10/29/01 RECEIVED:10/30/01

SAMPLE: Water sample, GP-8

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	4
Benzene	ug/L	27
Toluene	ug/L	10
Ethyl Benzene	ug/L	1400
m + p Xylene	ug/L	820
o Xylene	ug/L	1000
Xylene	ug/L	1800
Isopropylbenzene	ug/L	54
Propylbenzene	ug/L	26
1,3,5-Trimethylbenzene	ug/L	120
1,2,4-Trimethylbenzene	ug/L	340
sec-Butylbenzene	ug/L	<1
p-Isopropyltoluene	ug/L	3
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	2300
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc;

REMARKS: EPA Method 8021.

DIRECTOR 

rn=

32020

NYSDOH ID# 10320

Page 1 of 2

ECOTEST LABS, INC.

100 WILSON AVE., N. BABYLON, N.Y. 11703 • (631) 422-6777

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO: 215660.08

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952
 ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D: 10/29/01 RECEIVED: 10/30/01

SAMPLE: Water sample, GP-8
 UNITS: ug/L

ANALYTICAL PARAMETERS

naphthalene(sv)	300
1-Methylnaphthalene	150
acenaphthylene	62
acenaphthene	<10
fluorene	28
phenanthrene	45
anthracene	<10
fluoranthene	<10
pyrene	11
benzo(a)anthracene	<10
chrysene	<10
benzo(b)fluoranthene	<10
benzo(k)fluoranthene	<10
benzo(a)pyrene	<10
dibenzo(a,h)anthracene	<10
indeno(1,2,3-cd)pyrene	<10
benzo(ghi)perylene	<10

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8270

 DIRECTOR 

rn= 32021

NYSDOH ID# 10320

Page 2 of 2

ECOTEST LABORATORIES, INC.

377 SHEFFIELD AVE. • N. BABYLON, N.Y. 11703 • 516-661-1111

Email: ecotestlab@aol.com Website: www.ecotestlabs.com

LAB NO:215660.09

11/06/01

Kost Environmental Inc.
775 Ole Jule Lane
Mattituck, NY 11952
ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
COLLECTED BY: Client DATE COL'D:10/29/01 RECEIVED:10/30/01

SAMPLE: Water sample, GP-9

ANALYTICAL PARAMETERS

ter-ButylMethylEther	ug/L	<1
Benzene	ug/L	<1
Toluene	ug/L	<1
Ethyl Benzene	ug/L	<1
m + p Xylene	ug/L	9
o Xylene	ug/L	13
Xylene	ug/L	22
Isopropylbenzene	ug/L	2
Propylbenzene	ug/L	<1
1,2,4-Trimethylbenzene	ug/L	<1
1,2,5-Trimethylbenzene	ug/L	7
sec-Butylbenzene	ug/L	<1
p-Isopropyltoluene	ug/L	<1
n-Butylbenzene	ug/L	<1
Naphthalene(v)	ug/L	71
tert-Butylbenzene	ug/L	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8021.

DIRECTOR 

ECOTEST

ENVIRONMENTAL TESTING

377 SHEPP RD. 1ST FLOOR, WEST HAVEN, CT 06611-3770 FAX (800) 422-6770

Email: ecotestnae@aol.com Website: www.ecotestlabs.com

LAB NO:215660.09

11/06/01

Kost Environmental Inc.
 775 Ole Jule Lane
 Mattituck, NY 11952

ATTN: Daryl Kost

SOURCE OF SAMPLE: Oswego Oil, Hempstead
 COLLECTED BY: Client DATE COL'D:10/29/01 RECEIVED:10/30/01

SAMPLE: Water sample, GP-9
 UNITS: ug/L

ANALYTICAL PARAMETERS

Naphthalene(sv)	53
2-Methylnaphthalene	5
Acenaphthylene	2
Acenaphthene	<1
Fluorene	<1
Phenanthrene	1
Anthracene	<1
Fluoranthene	<1
Pyrene	<1
Benzo(a)anthracene	<1
Chrysene	<1
Benzo(b)fluoranthene	<1
Benzo(k)fluoranthene	<1
Benzo(a)pyrene	<1
Dibenzo(a,h)anthracene	<1
Indeno(1,2,3-cd)pyrene	<1
Benzo(ghi)perylene	<1

ANALYTICAL PARAMETERS

cc:

REMARKS: EPA Method 8270

DIRECTOR 

rn=

32023

NYSDOH ID# 10320

Page 2 of 2

ECO TEST LABORATORIES, INC. • ENVIRONMENTAL TESTING

77 Sheffield Avenue, North Babylon, New York 11703
 (31) 422-5777 • FAX (31) 422-5770

Client: KOST ENV. SERVICES, INC.
 Address: 775 OLE JUE LANE
 MATTUCK, NH 1952
 Phone: (63) 2982922 FAX: (63) 2985575
 Person receiving report: D. KOST
 Sampled by: D. KOST
 Source: OSWEGO OIL - HEMPSTEAD
 Job No.: —

TOTAL NUMBER OF CONTAINERS		TYPE & NUMBER OF CONTAINERS	
VOA ₅	3	SEMI VOL	3

MATRIX
 (GAS, LIQ, SOLID, etc.)
 W

COLLECTED
 DATE: 10/19/00
 TIME: 9:00

SAMPLE IDENTIFICATION

GP-1
 GP-2
 GP-3
 GP-4
 GP-5
 GP-6
 GP-7
 GP-8
 GP-9

3 2 1
 3 2 1
 3 2 1
 3 2 1
 3 2 1
 3 2 1
 3 2 1
 3 2 1
 3 2 1

REMARKS: TESTS REQUIRED:
 SPECIAL TURNAROUND, SPECIAL Q.C. at:
 STAS 8021 88 220 + MTBE
 (PARS)

Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)
Representing: [Signature]	10/20/00	YES NO: NA	Representing: [Signature]		YES NO: NA	Representing: [Signature]
Relinquished by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)	DATE/TIME	SEAL INTACT?	Received by: (Signature)
Representing: [Signature]		YES NO: NA	Representing: [Signature]		YES NO: NA	Representing: [Signature]

Historical Documentation

KEYSPAN
ENERGY

400 Hudson Street
New York, NY 10014
Tel: 212 691-1000
Fax: 212 691-1001
E-Mail: brian.mccaffrey@keyspaneergy.com
www.keyspaneergy.com

July 11, 2000

Brian R. McCaffrey, P.E.
Vice President
Environmental Engineering and Services

Dear Neighbor,

KeySpan Energy Corporation, working under an Order on Consent entered into with the New York State Department of Environmental Conservation (NYSDEC), will begin taking samples of soil and groundwater at and around its Hempstead (Intersection Street) Former Manufactured Gas Plant (MGP) site beginning approximately July 17. The samples and the analysis that will be undertaken by independent experts and NYSDEC will determine the environmental impacts that the plant may have had on the community and appropriate means to remediate the conditions that are found.

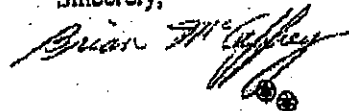
The MGP site began operations in the early 1900's and records indicate that the manufacturing operations ended sometime in the mid-1950's. The contaminants which we expect to find are byproducts of heating coal, oil and other hydrocarbons to produce gas, which was used for light and cooking in the Hempstead area prior to the completion of natural gas pipelines in the 1950's.

Included in the investigation will be installation of groundwater wells, monitoring wells both on and off the site, and the drilling of wells of various depths to take soil samples. Most of the offsite sampling will be done within two blocks of the current site perimeter, in areas where contamination may have migrated from the site. The drilling and digging of test pits may result in the release of odors, which should dissipate quickly. If we do notice or get reports of odors, there are measures that we will take to reduce their effect. However, while the odors may be unpleasant, they do not present a risk to public health. The workers on site will be wearing protective garments, as required by State and Federal regulations governing work of this type.

Documents related to the investigation are available to you at the Document Repositories, which are at the Hempstead Public Library on Washington Street, the Garden City Public Library on Seventh Street and at NYSDEC's Region 1 office in Stony Brook.

We are committed to minimizing any disruptions or inconvenience this work may cause and thank you for your cooperation. For news about the investigation or if you have any questions, please contact our Community Relations Hotline at 516-545-6161. Your call will be returned within one business day.

Sincerely,



BRM/lam

NEW YORK STATE
APPLICANT

(See Instructions)

• TO THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

I hereby apply to inspect the following records under the provisions of the Freedom of Information Law:

**FINAL REMEDIAL INVESTIGATION WORK PLAN & SITE DIAGRAM
FOR THE LONG ISLAND LIGHTING COMPANY (LILCO) (KEYSPAN)
HEMPSTEAD GAS PLANT - NASSAU COUNTY**

After inspection, should I desire copies of all or part of the records inspected, I will identify the records to be copied and hereby offer to promptly pay the established fees. (Cost of reproduction of 25¢ per page as applicable). Contact me if cost will exceed \$ ~~100~~ **50**

Name (Print or type) **DARREL J. KOST P.E.** Telephone No. **631-298-2292**

Attention of: **DARREL KOST**

Mailing Address **715 OLE JULE LANE, MATTITUCK, N.Y. 11952**

Signature

Darrel J. Kost

Date

1/14/02

• TO THE APPLICANT:

-Records Provided

☒ The reproduction costs for the records provided are \$

☒ Records have been (partially, fully) provided. (If not fully provided, date when records are expected to be fully provided:)

-Records Not Available

☒ Records cannot be found after diligent search

☒ The Department is not the custodian for records indicated

-Records Denied

I hereby certify that access to the records or part of the records circled above has been denied to the applicant for the reason(s) checked below:

☒ Specifically exempt by other statute

☒ Unwarranted invasion of personal privacy

☒ Would impair present or imminent contract awards or collective bargaining negotiations

☒ Are examination questions or answers

☒ Are inter-agency or intra-agency materials that are not:

• statistical or factual tabulations or data

• instructions to staff that affect the public

• final agency policy or determinations; or

• external audits, including but not limited to audits performed by the comptroller and the federal government

☒ Are trade secrets

☒ Would endanger the life of any person

☒ Are compiled for law enforcement purposes

and which, if disclosed would:

• interfere with law enforcement investigations or judicial proceedings

• deprive a person of the right to a fair trial or impartial adjudication

• identify a confidential source or disclose confidential information relating to a criminal investigation, or

• reveal criminal investigative techniques or procedures, except routine techniques and procedures

☒ Would jeopardize an agency's capacity to guarantee the security of its information technology assets, such assets encompassing both electronic information systems and infrastructures

Identification of records withheld (attach listing if additional space is required) and/or explanation if appropriate:

Records Custodian Signature

Title

Date

DEC REGION# 1 (Stony Brook) SPILL NUMBER 0025127

SPILL NAME: OSWEGO OIL SERVICE CORP DEC LEAD: ACAMPORA 00-049

CALLER'S NAME: NICK ACAMPORA NOTIFIER'S NAME: DARRYL KOST

CALLER'S AGENCY: DEC SPILLS NOTIFIER'S AGENCY: KOST ENGINEERING

CALLER'S PHONE: (516) 444-0322 EXT. NOTIFIER'S PHONE: EXT.

SPILL DATE: 07/14/2000 TIME: 08:45
CALL RECEIVED DATE: 07/14/2000 TIME: 08:45 RECEIVED BY CID #: _____

Material Spilled	Mat. Class	Am't Spilled	Units	Am't Recovered
1) #2 FUEL OIL	Pet-Haz-Other-Unk.	Unknown	Gal - Lbs	Unknown
2)	Pet-Haz-Other-Unk.		Gal - Lbs	
3)	Pet-Haz-Other-Unk.		Gal - Lbs	
4)	Pet-Haz-Other-Unk.		Gal - Lbs	

PLACE: <u>OSWEGO OIL SERVICE CORP</u>	NAME: <u>OSWEGO OIL SERVICE CORP</u>
STREET: <u>45 INTERSECTION STREET</u>	STREET: <u>45 INTERSECTION STREET</u>
T/C/V: <u>HEMPSTEAD</u> CO: <u>NASSAU</u>	CITY: <u>HEMPSTEAD</u>
CONTACT: <u>JOHN RHODES</u>	STATE: <u>NY</u> ZIP: <u></u>
PHONE: <u>(516) 485-3900</u> EXT. <u></u>	CONTACT: <u>JOHN RHODES</u>
	PHONE: <u>(516) 485-3900</u> EXT. <u></u>

Human Error		Tank Test Failure*		Tank Failure		Gas Station		Private Dwelling		Non-Maj Facility	
Accident		Housekeeping		Tank Overfill		Passenger Vehicle		Vessel		Comm/Indust	
Equipment Failure		Deliberate		Other		Comm. Vehicle		Railroad Car		Non-Comm/Instit	
Vandalism		Abandoned Drums		Unknown		Tank Truck		Major Facility		Unknown	

On Land	<u>Groundwater</u>	Air	<u>SPILL REPORTED BY</u>		
In Sewer	Surface Water**		<u>Responsible Party</u>	Tank Tester	Local Agency
			Affected Persons	DEC	Federal Gov't
			Police Department	Citizen	Other
			Fire Department	Health Dept.	

** WATERBODY: _____

CALLER REMARKS: DURING SITE INVESTIGATION, ENGINEERING COONSULTANT FOR THE RP DISCOVERED
FLOATING PRODUCT IN SEVERAL MONITORING WELLS LOCATED ON THE PROPERTY. PREVIOUS
SPILL NUMBERS EXIST.

<u>*PBS Number</u>	<u>Tank Number</u>	<u>Tank Size</u>	<u>Test Method</u>	<u>Leak Rate</u>

PRIMARY CONTACT CALLED DATE: _____ TIME: _____ hrs. REACHED DATE: _____ TIME: _____ hrs.
SECONDARY CONT. CALLED DATE: _____ TIME: _____ hrs. FAXED BY CID#: _____

PIN #		T & A	Cost Center		SR to Central Office	
Cleanup Ceased		Meets St'ds NO		Last Inspection		Penalty NO
CUI	ENF-INIT		INVS-COM		CAP	
UST Trust Eligible NO		Site: A <input checked="" type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E		Resp. Party 1 2 <input checked="" type="radio"/> 4 5 6		Reg Close Date
Created on 07/19/2000 Last Updated on 07/20/2000 Is Updated? NO				EDO		DATA INPUT []

NYS DEC--Region 1 Tank Removal Report Routine (Spill) # 00-25127

Establishment		Representatives On Site	
Name	OSWEGO FLO	Contractor	WERNER Construction
Address	45 INTERSECTION ST. (Nearest X St. FRANKLIN AVE.)	Foreman	JIM WOERNER
Municipality	Hempstead	Owner / Rep. Of Establishment	
Phone	(516) 485-3900	Name	JOHN RILEY
County	Nassau / Suffolk	Address	Same
		Phone	
		Other	P. DANIELS / DENNINBERG ENV.

Tank #	1	2	3	4		
Removal Date/Time	11/15/01	11/15/01	11/15/01	11/15/01		
Tank Size	1000	1000	275	275		
Content	DIESEL	DIESEL	KERO.	KERO.		
Pump System	Sub/Suct	Sub/Suct	Sub/Suct	Sub/Suct	Sub/Suct	Sub/Suct
Type of Tank	S F S/F	S F S/F	S F S/F	S F S/F	S F S/F	S F S/F
Degree of Corrosion	MOD.	SEVERE	A.G.	A.G.		
Pitting	MOD.	SUBRE	TANK	TANK		
Stain	NONE	NONE	NONE	NONE		
# of Holes/Cracks	3 NOTED	15 NOTED	NONE NOTED	NONE NOTED		
Tank Test Failure?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Contaminated Soil Found?	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No
Amount Removed	20 YDS	YDS				

INTERSECTION ST. D

TANK #1 - LAST USED 1989
ROUNDED END PLATES

TANK #2 LAST USED 1989
FLAT END PLATES
W/ LIP.

TANK #3 + #4
A/G KERO TANKS
ON LEGS,
NO SPILLAGE
NOTED

ACTIVE RACK

OSWEGO OFFICE BLDG.

PUMPS

FILL FOR VIG FLOTANK STILL IN SERVICE

40' 10' DEEP.

INACTIVE RACKS

"PELIC" TANKS IN DIKE.

Not to scale

Δ - SAMPLE LOCATIONS / COMPOSITE
▲ - " " " / GRAB

8021 + 8270 TOTALS
SAMPLES TO BE SENT TO PEDNAULT.

11/15/01 @ 10:52 - ACCOMPANY ON SITE. MET W/ THE ABOVE REFERENCED REPS. TANK #1 UNCOVERED UPON ARRIVAL. MINOR ODOOR NOTED IN STOCKPILED SOIL. UPON REMOVAL OF TANK #1, INSTRUCTED J. WOERNER TO OVEREXCAVATE @ BOTTOM OF EXCAVATION. P.H.D. READINGS > 50 ppm, LESS THAN 10 ppm. SLIGHT ODOOR, NO OBVIOUS SPILLING. FOUND 3 HAZARDOUS MATERIALS AT BOTTOM OF TANK. STOCKPILED APPROX 20 YDS. PROCEEDED W/ REMOVAL OF TANK #2. SIMILAR SOIL CONDITIONS NOTED. FOUND NUMEROUS HAZARDOUS MATERIALS @ BOTTOM OF TANK. TANK #2 DID HAVE SMALL AMOUNT OF BRISLY COLORED MATERIAL. GAVE O.K. TO BACKFILL EXCAVATION AFTER BOTTOM + SIDEWALL SAMPLING COMPLETED BY ENVIRONMENTAL. DEC INSPECTOR: A. ACCOMPANY DATE: 11/15/01

*TANKS #3 + 4 REMOVED AFTER MY DEPARTURE. NO OBVIOUS LEAKAGE. TANKS A/G



May 1, 2002

Mr. Nick Acampora
NYS Dept. of Environmental Conservation
Bldg. 40 S.U.N.Y.
Stony Brook, N.Y. 11790-2356

RECEIVED

MAY 08 2002

REG 1 - OIL SPILL

**Re: Monthly Reports for Monitoring Wells -
December 2001 thru April 2002
Oswego Oil Service Corp.
45 Intersection Street
Hempstead, New York**

Dear Mr. Acampora:

Reference is made to your correspondence dated February 14, 2002 regarding the monthly submittal of ground water data for the subject facility.

Attached is a table of inches of product recorded via a bailer and the amount of water/oil recovered from each well. Data recording the depth to water and depth to product for each well will be supplied to you in future reports. We apologize for the mix-up.

If you have any questions regarding this information, feel free to contact me at 631-298-2292.

Sincerely,

A handwritten signature in dark ink, appearing to read "Barrel J. Kost".

Barrel J. Kost P.E.

cc. Mr. J. Rhodes

DATE	MW2 (WEST) PRODUCT IN BAILER	PRODUCT REMOVED	MW4 (EAST) PRODUCT IN BAILER	PRODUCT REMOVED	MW5 (MIDDLE) PRODUCT IN BAILER	PRODUCT REMOVED
12/27/01	1"	3 QTS	2"	6 QTS	8	21 QTS
1/3/02	1	3	3	71/2	81/2	221/2
1/4/02	1	3	3	71/2	7	18
1/7	1	41/2	21/2	6	7	191/2
1/9	1	3	3	9	61/2	18
1/14	1	3	4	101/2	8	21
1/15	1	3	4	12	8	221/2
1/21	1	3	4	101/2	7	21
1/23	1	3	4	12	7	221/2
1/24	1	3	41/2	15	8	24
1/29	1	3	5	131/2	8	24
1/30	1	33/4	4	12	8	221/2
1/31	1	3	4	12	8	221/2
2/2	1	41/2	4	123/4	8	24
2/5	2	71/2	5	161/2	81/2	251/2
2/6	21/2	41/2	51/2	161/2	9	24
2/7	2	3	4	12	8	24
2/8	2	41/2	41/2	161/2	8	221/2
2/11	11/2	33/4	5	171/4	81/2	24
2/13	2	41/2	5	161/2	81/2	24
2/14	11/2	51/4	5	153/4	8	251/2
2/15	11/2	41/2	5	171/4	8	221/2
2/19	2	6	51/2	18	9	251/2
2/20	2	41/2	51/2	161/2	8	24
2/21	2	41/2	6	171/4	81/2	24
2/25	2	6	6	18	8	251/2
2/26	11/2	3	51/2	161/2	81/2	24
2/27	2	41/2	5	161/2	81/2	243/4
2/28	11/2	41/2	5	153/4	7	191/2
3/5	2	41/2	6	161/2	8	213/4
3/8	2	6	6	161/2	8	24
3/9	2	6	6	18	8	243/4
3/12	2	51/4	6	183/4	81/2	221/2
3/14	2	63/4	6	18	8	24
3/16	2	6	6	18	81/2	243/4
3/20	21/2	63/4	7	191/2	9	251/2
3/21	21/2	6	71/2	221/2	9	24
3/23	2	6	7	201/4	8	21
3/26	21/2	63/4	7	221/2	8	21
3/28	3	71/2	8	30	7	15
4/2	4	12	7	221/2	71/2	191/2
4/4	41/2	9	7	27	7	18
4/8	31/2	71/2	8	30	6	15
4/10	41/2	15	81/2	24	7	221/2
4/11	6	191/2	8	251/2	61/2	161/2
4/15	6	153/4	8	24	71/2	21

OSWEGO OIL

**RECEIVED**

DEC 24 2003

REG 1 - OIL SPILL

December 20, 2003

SPILL # 00-25127

Mr. Nick Acampora
 NYS Dept. of Environmental Conservation
 Bldg. 40 S.U.N.Y.
 Stony Brook, N.Y. 11790-2356

1/5/03 @ 14:30 -
 ACAMPORA HAD TELECON W/
 D. KOST. ADVISED HIM THAT
 IF EQ. IS OUT OF SERVICE
 THEY MUST CONTINUE
 MANUAL BAILING. HE
 UNDERSTOOD. (A)

Re: Monthly Reports for Monitoring Wells -
 December 2002 thru December 2003
 Oswego Oil Service Corp.
 45 Intersection Street
 Hempstead, New York

Dear Mr. Acampora:

The following information will update you with regard to the Oswego facility and its ongoing operations since our last written correspondence of December 2002.

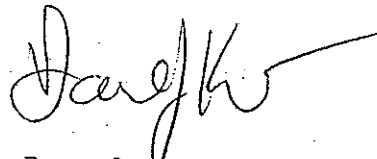
The remediation system consisting of Spill Buster product recovery pumps became operational in November 2002. The system recovered product initially but since August of 2003 has not been operational due to improvements being made at the facility. These improvements are required by the Consent Order signed with the NYSDEC regarding runoff issues and proper containment. In addition, there were mechanical problems encountered with the Spill Buster equipment, which required removal of the pumps for repair under the warranty in the winter of 2003. The equipment has been repaired but is not operational due to the ongoing SPDES construction improvements at the facility. It is expected that the construction will be completed in the spring of 2004 and the recovery system will be operational at that time.

The groundwater tapings regarding the on-site monitoring wells for Oswego Oil since the last report are tabulated in the following table. Please note that due to heavy snow conditions of last winter, groundwater monitoring readings were not performed.

DATE	MW2	MW3	MW4	MW5	COMMENTS
12/15/02	DTP DTW 34.97* Prod.	DTP DTW 33.26 Prod. 0	DTP DTW 34.43* Prod.	DTP DTW33.97* Prod.	*bottom of well-dry
1/16/03	DTP DTW 34.97* Prod.	DTP - DTW 33.14 Prod. 0	DTP DTW 34.43* Prod.	DTP 33.40 DTW 33.50 Prod. 0.10	*bottom of well-dry
2/16/03	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	All wells snow covered and inaccessible
3/11/03	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	All wells snow covered and inaccessible
4/7/03	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	DTP DTW na Prod.	All wells snow covered and inaccessible
9/25/03	DTP 31.11 DTW 31.18 Prod. 0.07	DTP - DTW 30.88 Prod. 0	DTP 30.88 DTW 30.97 Prod. 0.09	DTP 31.04 DTW 31.08 Prod. 0.04	Recovery system not operating; orange/brown product in MW-2 and MW-5 unlike MW-4 product
12/20/03	DTP 30.07 DTW 30.17 Prod. 0.10	DTP - DTW 29.75 Prod. 0	DTP 29.51 DTW 29.62 Prod. 0.11	DTP 29.94 DTW 29.97 Prod. 0.03	Recovery system not operating; orange/brown product in MW-2 and MW-5 unlike MW-4 product

If you have any questions regarding this information, feel free to contact me at 631-298-2292.

Sincerely,



Darrel J. Kost P.E.

cc. Mr. J. Rhodes
Mr. N. Damadeo



☒ Field Notes ☐ Phone Conversation ☐ Meeting Notes Spill No. 00-25127

Location			Representatives on site	time in	time out
Name <u>OSWEGO OIL TERMINAL</u>			DEC <u>DEAMARA</u>	<u>1306</u>	<u>1351</u>
Address <u>INTERSECTION STREET</u>			<u>J. RHODES - OSWEGO</u>		
Town <u>HAMPSTEAD</u>			<u>J. FEWERS - NCFM</u>		
Phone			<u>J. WERNER - INTERVIEW</u>		
Weather	Temperature	General conditions	PRP		
humidity <u>Dry</u> Humid Very humid	Cold <u>Fair</u> Warm Hot	<u>Sunny</u> Partly Cloudy Cloudy Rain / Snow			

Date	Time	Inspection Narrative
11/7/01	1306	<p>- DEAMARA ON SITE</p> <p>- MET W/ THE ABOVE REF. REPS. TO DISCUSS PLANNED ACTIONS @ SITE.</p> <p>- MRS. RHODES ALSO PROVIDED DISPOSAL DOCUMENTATIONS FOR STOCKPILED SOIL ASSOCIATED W/ EXCAVATION WORK @ SITE.</p> <p>- 2 X 1K GALLON DIESEL TANKS + 2 X 275 GALLON ALG. TANKS TO BE REMOVED NEXT WEEK (PLANNED FOR 11/15/01)</p> <p>- PLAN SHOWED TO ALL INCLUDED INSTALLATION OF NEW ASPHALT PAVEMENT AROUND ENTIRE SITE AND ASPHALT BERM AROUND BACK; FILL PITS FOR UIC TANKS AND AREA NEAR POWER TANK STORAGE AREA.</p> <p>- PLANS ALSO CALL FOR INSTALLATION OF NEW O/W SEPARATOR + ABANDONMENT OF OLD SEPARATOR</p> <p>- DARRIN KOST COMPLETED SUBSURFACE INVESTIGATION AWAITING RESULTS TO DETERMINE FUTURE ACTIONS</p> <p>- PRODUCT REFLOWING STILL IN PROGRESS.</p> <p>- SPDES PERMIT NOW VALID.</p> <p>- WILL RETURN NEXT WEEK MR. T/R.</p>
	1351	<p>- LEFT SITE</p> <p><i>[Signature]</i></p>



May 31, 2002

Mr. Nick Acampora
NYS Dept. of Environmental Conservation
Bldg. 40 S.U.N.Y.
Stony Brook, N.Y. 11790-2356

Re: **Spill No. 00-25127**
Monitoring Well Analysis
Oswego Oil Service Corp.
45 Intersection Street
Hempstead, New York

Dear Mr. Acampora:

Recently, various documents were obtained from your department regarding a Freedom of Information request with respect to the LILCO Hempstead Gas Plant (HGP). The HGP was previously located just to the northwest and up-gradient to the Oswego Oil property.

A review of the **Draft Field Investigation Report for the LILCO Hempstead Gas Plant**, March 4, 1992 indicated the potential for off-site migration of groundwater contamination along the southern site boundary (see pages 39 and 40 of the report which are attached). In addition, groundwater contours included in the report indicated a southeasterly flow directly onto the LIRR right-of-way and onto the adjacent Oswego site (see attached Figure 14 of that report).

Based upon the above-noted HGP information and the presence of floating product in the westerly sector of the Oswego site (down-gradient from the HGP site), product samples were obtained from the two westerly monitoring wells located on the Oswego Oil property on April 19, 2002. These wells were previously identified as MW-2 and MW-5 (see attached site plan). In addition, a sample of virgin no. 2 fuel oil was also obtained from the Oswego facility, which is its only product of distribution.

These three samples were then refrigerated and delivered to EcoTest Laboratories for analysis. The samples were analyzed for STARS 8260 Volatiles, 8270 Base Neutrals/Acids and cyanide. The results of these analyses are summarized in Table 1.

A comparison of the concentrations of contaminants identified in the two monitoring wells with the virgin no.2 sample and the contaminants identified in the HGP report clearly indicates that the Oswego site has been impacted by HGP activities.

In order to better evaluate the subsurface conditions in the HGP area and the impact on the Oswego site, requests have been made through the NYSDEC contact person Mr. Amen M. Omorogbe for the latest Keyspan groundwater sampling results regarding off-site wells installed on Intersection Street, Sealy Avenue and the LIRR right-of-way. Mr. Omorogbe has indicated that a draft document exists but cannot be released and expects a final report to be issued in approximately one year.

Waiting for the release of the Keyspan report, Oswego Oil will continue to monitor its site with respect to groundwater data but has curtailed its bailing activities due to the elevated concentrations of HGP contaminants.

If you have any questions regarding this information, feel free to contact me at 631-298-2292.

Sincerely,



Darrel J. Kost P.E.

cc. Mr. J. Rhodes
Mr. N. Damadeo
Mr. A. Omorogbe, NYSDEC
Mr. W. Parish, NYSDEC

SAMPLE ANALYSIS	MW-2	MW-5	VIRGIN No. 2
BENZENE	<25,000	<50,000	<25,000
TOLUENE	150,000	100,000	200,000
ETHYLBENZENE	4,700,000	740,000	290,000
XYLENES	8,600,000	1,790,000	1,600,000
ISOPROPYLBENZENE	500,000	230,000	160,000
N-PROPYLBENZENE	260,000	290,000	280,000
1,3,5-TRIMETHYLBENZENE	1,100,000	590,000	550,000
TERT-BUTYLBENZENE			
1,2,4-TRIMETHYLBENZENE	3,600,000	2,100,000	1,800,000
SEC-BUTYLBENZENE	110,000	250,000	230,000
ISOPROPYLTOLUENE	480,000	480,000	460,000
N-BUTYLBENZENE			
NAPHTHALENE	32,000,000	9,900,000	1,900,000
P-ETHYLTOLUENE	3,800,000	940,000	1,300,000
1,2,4,5-TETRAMETHYLBENZENE	300,000	400,000	270,000
P-DIETHYLBENZENE	720,000	800,000	890,000
ACETONE	<250,000	<500,000	250,000
ACEINAPHTHYLENE	680,000	<500,000	<50,000
ACENAPHTHENE	6,400,000	3,800,000	<50,000
FLUORENE	4,900,000	2,400,000	600,000
PHENANTHRENE	12,000,000	6,000,000	1,700,000
ANTHRACENE	3,200,000	1,700,000	210,000
FLUORANTHENE	3,600,000	1,600,000	<50,000
PYRENE	5,100,000	2,400,000	190,000
BENZO(A)ANTHRACENE	1,900,000	940,000	<50,000
CHRYSENE	1,900,000	1,000,000	<50,000
BENZO(B)FLUORANTHENE	700,000	<500,000	<50,000
BENZO(K)FLUORANTHENE	700,000	<500,000	<50,000
BENZO(A)PYRENE	1,300,000	640,000	<50,000

TABLE 1
OSWEGO OIL

DRAFT

HAZARDOUS WASTE
NYSDEC REGION 1

FIELD INVESTIGATION REPORT
FOR THE
LILCO
HEMPSTEAD GAS PLANT

March 4, 1992

Prepared By:

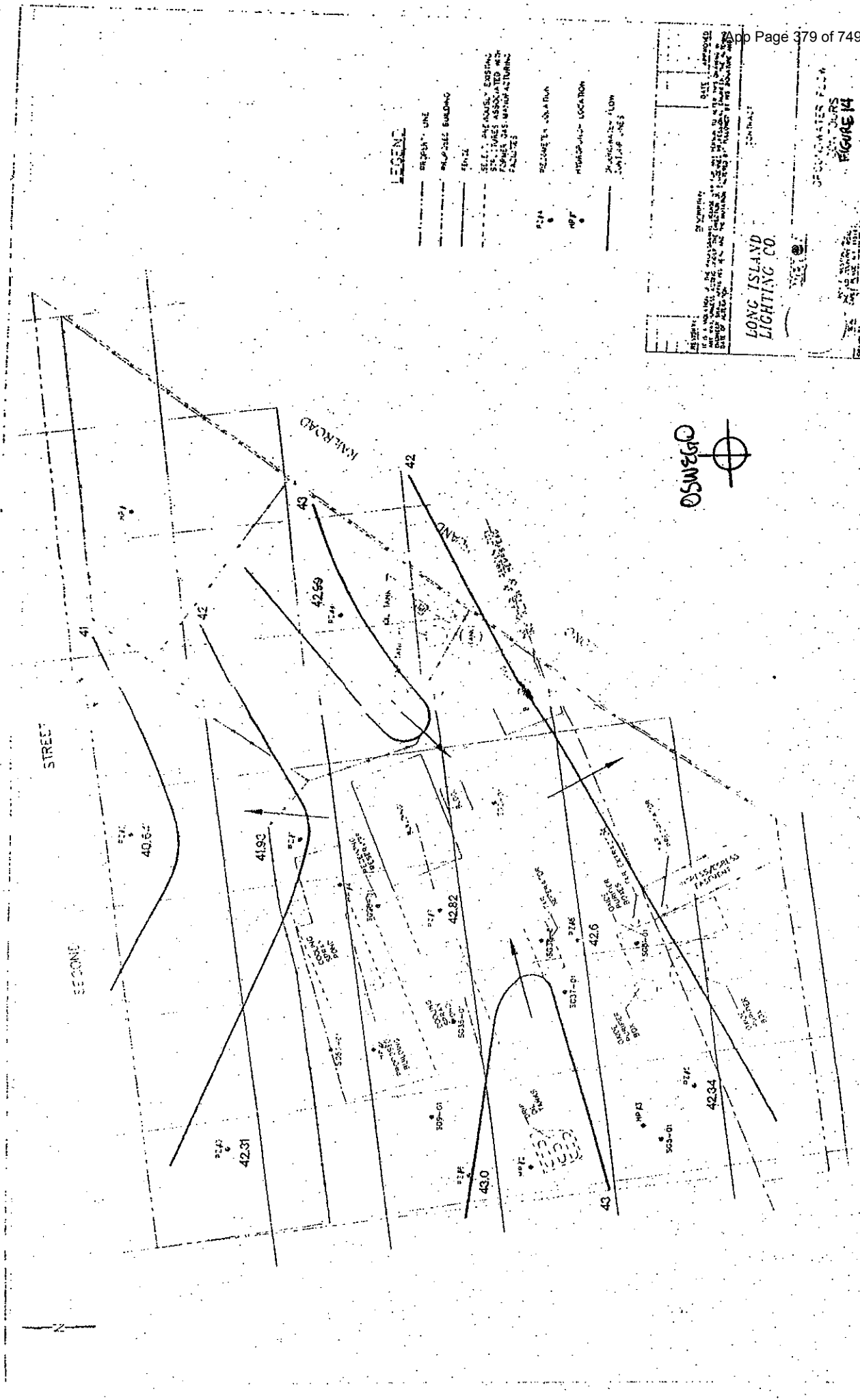
ROY F. WESTON, INC.
One Old Country Road
Carle Place, NY 11514

4.0 CONCLUSIONS

Based upon evaluation of data generated through implementation of the WESTON Field Investigation Plan the following conclusions have been made:

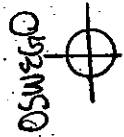
1. Waste material, typically associated with coal gasification process wastes, have been noted in various locations throughout the site. This waste material is typically bluish or black in color, often mixed with sand fill or construction debris. Wood chips, indicative of purifier box waste, were also observed in this waste material.
2. Petroleum stained soils were also present at the project site. These soils generally exhibited an obvious odor as well as a typical petroleum sheen. Often these soils were located below deposits of the waste material described above. These soils were observed as deep as approximately 26 feet bgs in boring locations completed in the southwestern portion of the site.
3. Comparison of chemical concentrations detected in soil samples with NYSDEC soil cleanup guidance values indicate exceedances for volatile organic compounds, specifically BTEX and various polycyclic aromatic hydrocarbons.
4. Cyanide was found in soil/waste samples but below NYSDEC soil cleanup guidance values.
5. Complete chemical analyses completed for a limited number of soil samples did not indicate the presence of pesticides, PCBs and metals.
6. Based upon review of facility drawings dated 8 November 1954, soil and groundwater contamination coincides with previously existing structures associated with gas plant manufacturing procedures, including tar storage tanks, tar separators, oxide purifier boxes, cooling spray ponds and drip oil storage tanks.

7. Site-specific groundwater flow contours indicate groundwater movement to be toward the center of the site from the east and west. Groundwater flows from the site in both a northerly and southerly direction. Regional groundwater flow is reportedly in a southern direction.
8. Upon review of groundwater analytical data and comparison to NYSDEC/DOH applicable standards and guidelines specific exceedances were noted. Concentrations of volatile organic compounds (BTEX), various polycyclic aromatic hydrocarbons (PAHS) and cyanide were above regulatory standards and guidelines.
9. A floating petroleum product layer has been observed in the southwestern area of the site. This product layer is present within PZ-5, PZ-6, and PZ-8 with preliminary thicknesses estimated at approximately .25 inch.
10. The potential exists along the southern site boundary for the off-site migration of groundwater contamination. This contamination is anticipated to be restricted to the shallow upper glacial aquifer based upon an assessment of local stratigraphy. Specifically, well completion reports for the Village of Garden City Public Supply Wells (adjacent property) indicate several significant gray clay units (ranging from 13 to 92 feet thick) underlying the shallow upper glacial aquifer. These deposits may act as confining units, retarding vertical migration of contaminants to the deeper Magothy aquifer.



LEGEND

- STREET LINE
- RAILROAD BUILDING
- ELEV.
- SEWER AREAS EXISTING
- POWER AREAS ASSOCIATED WITH POWER USE MANUFACTURING PLANTS
- WATER AREAS
- POWER LINE LOCATION
- WATER LINE LOCATION
- POWER LINE LOCATION



LONG ISLAND LIGHTING CO.

FIGURE 14

New York State Department of Environmental Conservation
Building 40 - SUNY, Stony Brook, New York 11790

TEL # (516) 444-0320
FAX # (516) 444-0373



John P. Cahill
Commissioner

August 4, 1997

CERTIFIED LETTER - RETURN RECEIPT REQUESTED

Mr. John Rhodes
Oswego Oil
45 Intersection Street
Hempstead, New York 11550

Re: Spill #97-04538, Oswego Oil
45 Intersection Street, Hempstead, N.Y.

Dear Mr. Rhodes:

Please be advised, the above mentioned spill number remains on the NYSDEC list of active spills. To complete the file, a statement explaining the repairs made to the system and the condition of the soil, with regard to contamination, should be submitted to this office. Please place the spill number on all correspondence.

If you have any questions, please feel free to call me at (516) 444-0336.

Sincerely,

Cathy A. Gibbons
Environmental Engineer I

CAG:ap
cc: A. Leung, NYSDEC

Oswego Oil Service Corp
45 Intersection Street
Hempstead, New York 11550

August 7, 1997

New York State Department of Environmental Conservation
Cathy A. Gibbons
Building 40 SUNY
Stony Brook, New York 11790--2356

Dear Ms Gibbons:

RE: Spill #97-04538, Oswego Oil

45 Intersection Street, Hempstead, N.Y.

In reference to the above spill, a contractor, James Woerner, Inc., was engaged to make the necessary repairs which consisted of excavating a buried line, locating the failed area which was a two inch threaded pipe coming off the main line, removing the threaded pipe and welding a patch over the area. In the course of excavation soil that was contaminated was segregated and removed by Waste Recycling Solutions 129 Peconic Avenue Riverhead, NY (NYSDEC 364 Transporter Permit No. 1A-415). All the above work was done under the supervision of and with the consent of the Nassau County Fire Marshall Office.

Before the line was put in operation the line was tested by Pro Test Enterprises, 331 Walker Street, N. Babylon, NY 11704 upon passing the test the Nassau County Fire Marshall Office was notified and approved reopening the line.

If you have any questions, please feel free to contact myself at 516-485-3900.

Sincerely,

Oswego Oil Service Corp
John Rhodes



PEDNEAULT ASSOCIATES, INC.

1615 NINTH AVENUE, BOX 205
BOHEMIA, N.Y. 11716

Phone: (631) 467-8477 Fax: (631) 467-6905

AMERICA'S TEST LAB!

Prepared Exclusively For:

BERNDINGER ENVIRONMENTAL, INC.
1615 NINTH AVE.
BOHEMIA, NY 11716
(631) 588-2251
PO # 310704 JOB # 11-258

PEDNEAULT ASSOCIATES, INC.

1615 NINTH AVENUE, BOX 205, BOHEMIA, N.Y. 11716

LAB#: 03100054

SAMPLE ID#: 03100054-001

PROJECT ID: OSWEGO OIL, HEMPSTEAD

SAMPLE ORIGIN: TEST HOLE (TH-1)

MATRIX: SOLID

COLLECT DATE AND TIME	DATE AND TIME RECEIVED	RELEASE DATE	REPORT DATE		
10/3/03	10/3/03 5:35:11 PM	10/7/03	10/7/03		
TEST: SEMI-VOLATILE ORGANIC COMPOUNDS			METHOD: EPA 8270D B/N		
PARAMETER	CAS #	RESULT	UNITS	QUALIFIER	
2-Fluorophenol	367-12-4	95900	µg/kg		
Phenol - d5		140000	µg/kg		
Nitrobenzene - d5	98-95-3	80000	µg/kg		
2-Fluorobiphenyl	321-60-8	117000	µg/kg		
2,4,6-Tribromophenol	118-79-6	31800	µg/kg	S7	
Terphenyl - d14		53700	µg/kg		

John Pedneault
Lab Director

ND-None Detected

Page 3 of 3
NYS ELAP #10224
MWBE #46075



C O V E R

S H E E T

FAX

To: George Harris, Environmental Remediation, Central Office
Fax #: (518) 402-9679
Re: Oswego Oil Terminal, Hempstead
Date: 10, October 2003
Pages: 1 of 7 including title page
From: Nick Acampora, Region One Spill Prevention and Response.
(631) 444-0322 Voice (631) 444-0328 Fax

George:

I was given your name from Karen Gomez, Regional Spill Engineer and Walter Parish, HWR regarding the results of soil sampling recently completed at the above referenced site. The facility is located adjacent to the former KeySpan MGP site off of Intersection Road, Hempstead.

During recent upgrade work which included the installation of a leaching pool for a new oil/water separator, the contractor encountered what he believed to be petroleum contamination. A spill number was issued (#03-25298) and an inspection was scheduled.

Based on my observations, the soil appeared to be discolored from 0 to -4' with no significant odor. At approximately -5' yellow-orange colored sandy soil was encountered. Again, no significant odor was detected but the soil did appear to be contaminated. A soil sample was taken at the excavation termination point (-5'). The sample was run utilizing EPA Methods 8021 and 8270.

I received the sample results on October 9, 2003. While no volatile contamination was present, semi-volatile contamination was including 6 compounds I am not familiar with. The results were significant for those 6 compounds. Specifically, high levels of 2-fluorophenol; phenol; nitrobenzene; 2-fluorobiphenyl; 2,4,6, tribromophenol; & terphenyl. A copy of the results package is attached for your information.

An attempt was made to determine if these compounds had any relation to each other in use. It appears some are used in solvents. It also appears that the compounds may have been used at MGP facilities. As previously indicated, the subject parcel is adjacent to a former MGP.

Do these compounds look familiar to you and if so what were their uses? And if these compounds are related to MGP facilities where do we go from here? If you have any questions/comments, please give me a call. Thanks for your assistance in this matter.



C O V E R

FAX

S H E E T

To: CHRIS MAGEE
Fax #: 518.402.9595
RE: SPILL # 03-25298
Date: 10/17/03
Pages: 8, including this cover sheet.

COMMENTS:

CHRIS,

ATTACHED IS THE SOIL SAMPLE RESULTS THAT WE
DISCUSSED A SHORT TIME AGO.

ANY ASSISTANCE WOULD BE GREATLY APPRECIATED.
PLEASE CALL OR E-MAIL ME OR KAREN GIMER.
THANKS....

my # 631-444-0322

KG # 631 444-0321

From the desk of...

NICK
Spill Prevention and Response
(631) 444-0320
Fax: (631) 444-0328

Spill No. 03-25298

Date	Time	Narrative
10/24/03	7:1600	- ACAMPORA CONTACTED PEDNAULT ASSOC. REGARDING SAMPLE RESULTS. (BASED ON REVIEW OF SAMPLE RESULTS BY D.E.R. ALBANY OFFICE, IT APPEARS THE COMPOUNDS IN QUESTION ARE "SERROGATE RECOVERY" COMPOUNDS - NOT COMPOUNDS ACTUALLY FOUND IN THE SOIL SAMPLE)
		- DISCUSSED RESULTS W/ "BRIAN" @ PEDNAULT. HE WILL CHECK HIS FILES & ADVISE.
		- "BRIAN" @ PEDNAULT CONTACTED ME. RESULTS OF COMPOUNDS IN QUESTION ARE THOSE ASSOCIATED WITH "SERROGATE RECOVERY". COMPOUNDS ARE NOT IN SOIL.
		- HE WILL FAX NEW COVER SHEET. TO ME.
		- ACAMPORA CONTACTED MR. RHODES. EXPLAINED FINDINGS AND FURTHER ACTIONS REQ'D.
		- CAN CLOSE.



PEDNEAULT ASSOCIATES, INC.

1615 NINTH AVENUE, BOX 205

BOHEMIA, N.Y. 11716

Phone: (631) 467-8477 Fax: (631) 467-6905

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(631) 588-2251

PO # 310704 JOB # 11-258

PEDNEAULT ASSOCIATES, INC.

1615 NINTH AVENUE, BOX 205, BOHEMIA, N.Y. 11716

LAB#: 03100054

SAMPLE ID#: 03100054-001

PROJECT ID: OSWEGO OIL, HEMPSTEAD

SAMPLE ORIGIN: TEST HOLE (TH - 1)

MATRIX: SOLID

COLLECT DATE AND TIME	DATE AND TIME RECEIVED	RELEASE DATE	REPORT DATE
10/3/2003	10/3/2003 5:35:11 PM	10/7/2003	10/7/2003
TEST: SEMI-VOLATILE ORGANIC COMPOUNDS		METHOD: EPA 8270D B/N	
PARAMETER	RESULT	UNITS	QUALIFIER
Surrogate Recovery			
2-Fluorophenol	47.98	%	
Phenol - d5	69.93	%	
Nitrobenzene - d5	79.95	%	
2-Fluorobiphenyl	117.11	%	
2,4,6-Tribromophenol	15.90	%	S7
Terphenyl - d14	53.69	%	

John Pedneault
Lab Director

ND-None Detected

Page 3 of 3
NYS ELAP #10224
MWBE #46075

Appendix H

META Letter Report August 9, 2002

August 9, 2002

Mr. John Schafer
Dvirka & Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797

RE: KSE - Hempstead

Dear Mr. Schafer:

This package contains the analytical results from three non-aqueous phase liquid (NAPL) samples received on July 17, 2002 by META Environmental, Inc. (META) from Dvirka & Bartilucci.

Methods

The samples were prepared by waste dilution (EPA 3580) using DCM. The extracts were spiked with internal standard and fingerprinted by gas chromatography with a flame ionization detector (GC/FID). An additional aliquot of sample HIMW-01S was subcontracted for viscosity and specific gravity analyses.

Results

Sample HIMW-10S contained petrogenic material. Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

The petrogenic material in this sample eluted as an unresolved complex mixture (UCM or "hump") from approximately octane (C8 - 6 minutes) to octacosane (C28 - 29 minutes) with a maximum at approximately pentadecane (C15 - 17 minutes). Examples of common petroleum products with these features include middle distillates such as diesel and #2 fuel oils. The dominance of the normal alkanes and the alkane/isoprenoid ratios indicate that the material in this sample is relatively unweathered.

Sample HIMW-01S contained a pyrogenic substance. Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

The pattern of PAHs, especially the ratios of fluoranthene to pyrene and dibenzofuran to fluorene, indicate that this material is MGP tar, probably from a carburetted water gas (CWG) process. The presence of MAHs and the high concentration of naphthalene relative to other PAHs indicate that this sample is relatively unweathered.

Sample HIMW-11S contained pyrogenic and petrogenic substances. The petrogenic material in this sample eluted as an unresolved complex mixture (UCM or "hump") from approximately

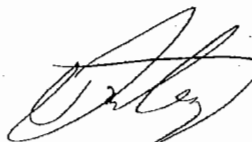
DB020717rpt

octane (C8 – 6 minutes) to octacosane (C28 – 29 minutes) with a maximum at approximately pentadecane (C15 – 17 minutes). Examples of common petroleum products with these features include middle distillates such as diesel and #2 fuel oils. The lack of normal alkanes and the alkane/isoprenoid ratios indicate that the petrogenic material in this sample has been subject to severe weathering.

The pattern of PAHs, especially the ratio of fluoranthene to pyrene, indicate that the pyrogenic material in this sample is MGP tar, probably from a carburetted water gas (CWG) process. The lack of MAHs and the reduced concentration of naphthalene relative to other PAHs indicate that the pyrogenic material in this sample has been subject to moderate weathering.

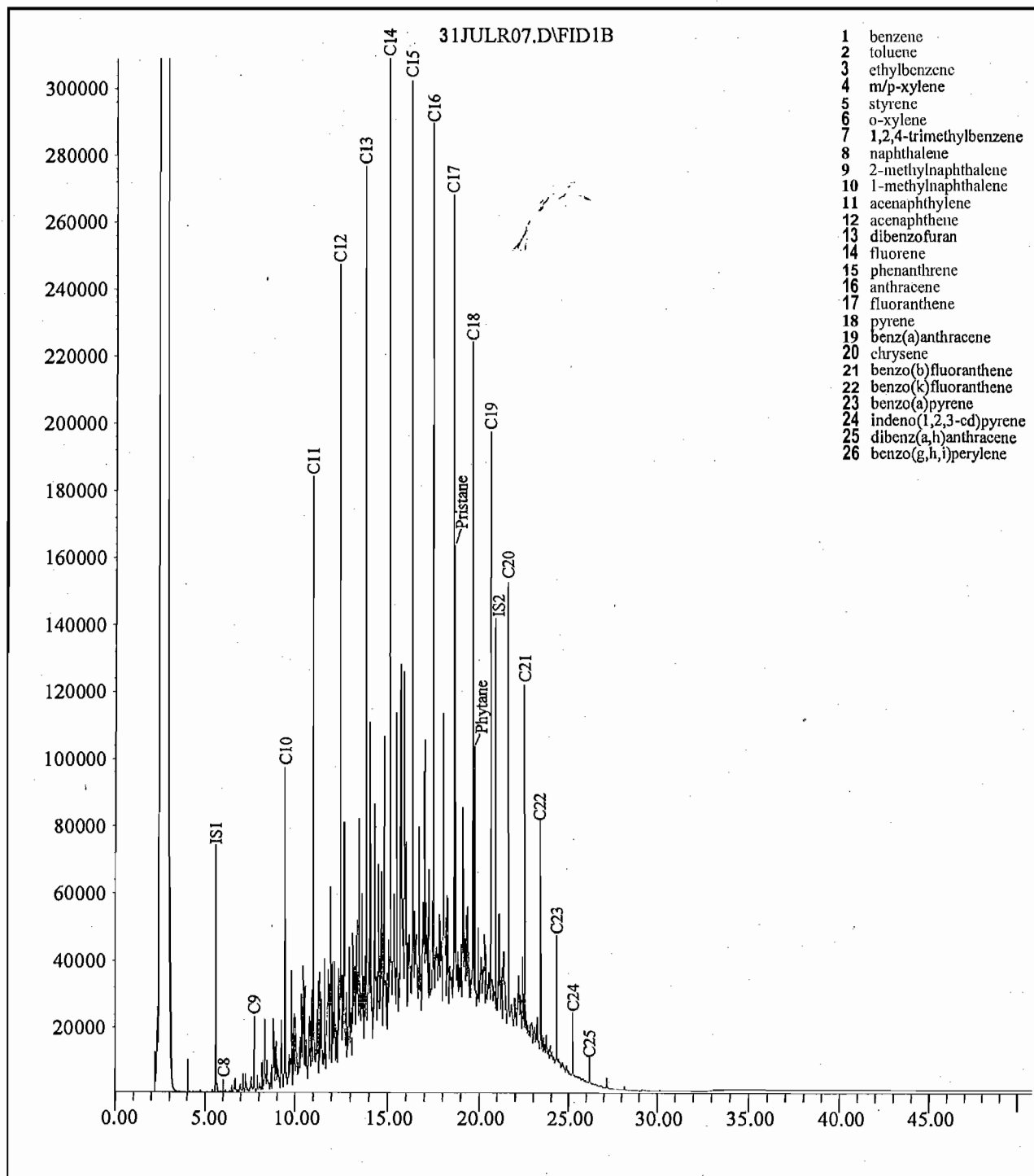
META can perform additional analyses to further characterize these samples if dictated by the project objectives. For example, proceeding with GCIMS profiles by GC/MS/SIM would resolve interferences, especially in sample HIMW-11S, and provide weathering resistant ratios by which to compare and contrast the materials found in these three samples. Please do not hesitate to contact me if you have any questions about these data or would like META to perform additional analyses.

Sincerely,



David Craig
Laboratory Director

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

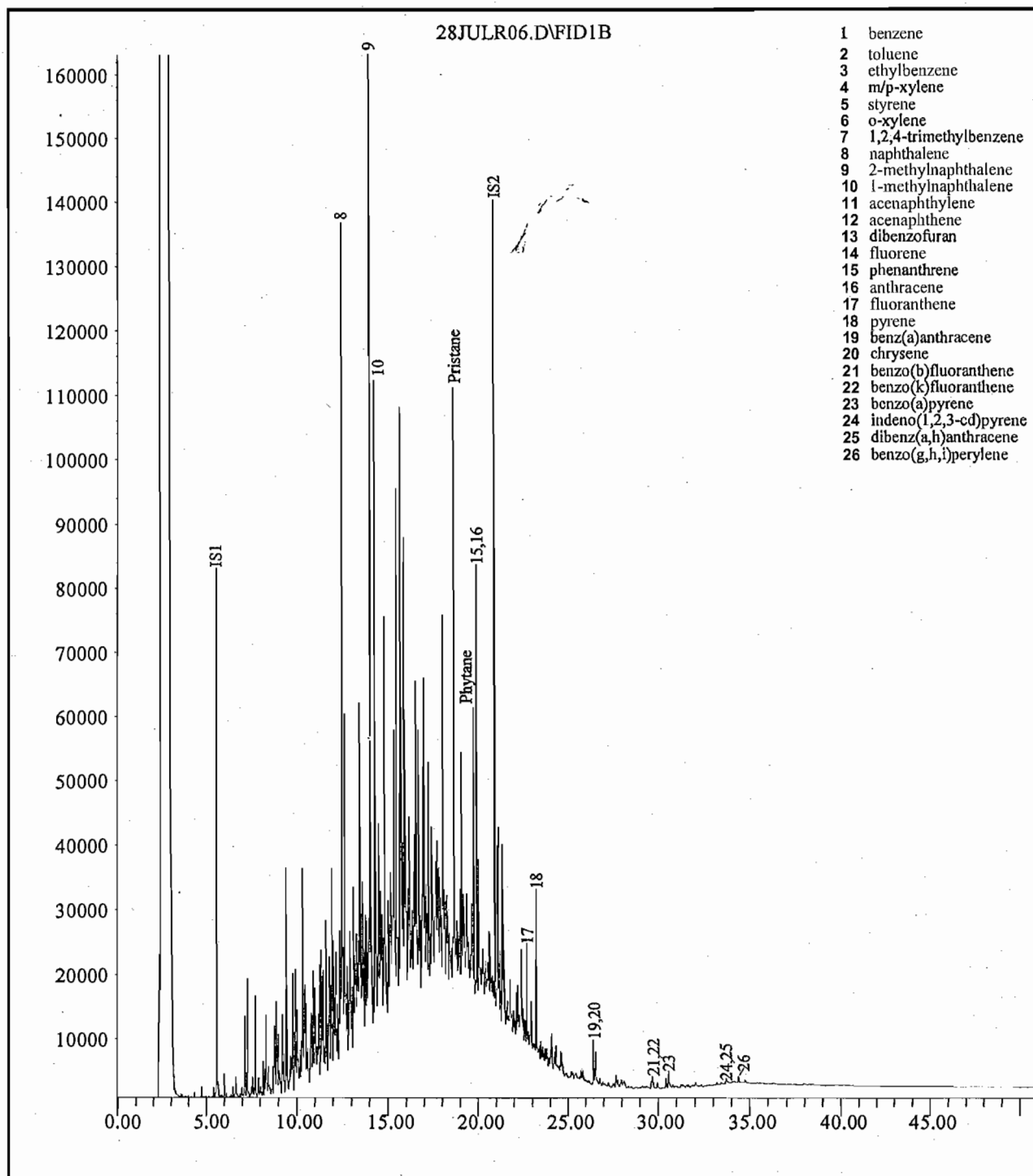
IS2 - o-terphenyl

Field ID: HIMW-10S

Laboratory ID: DB020717-01

Method: MET4007D

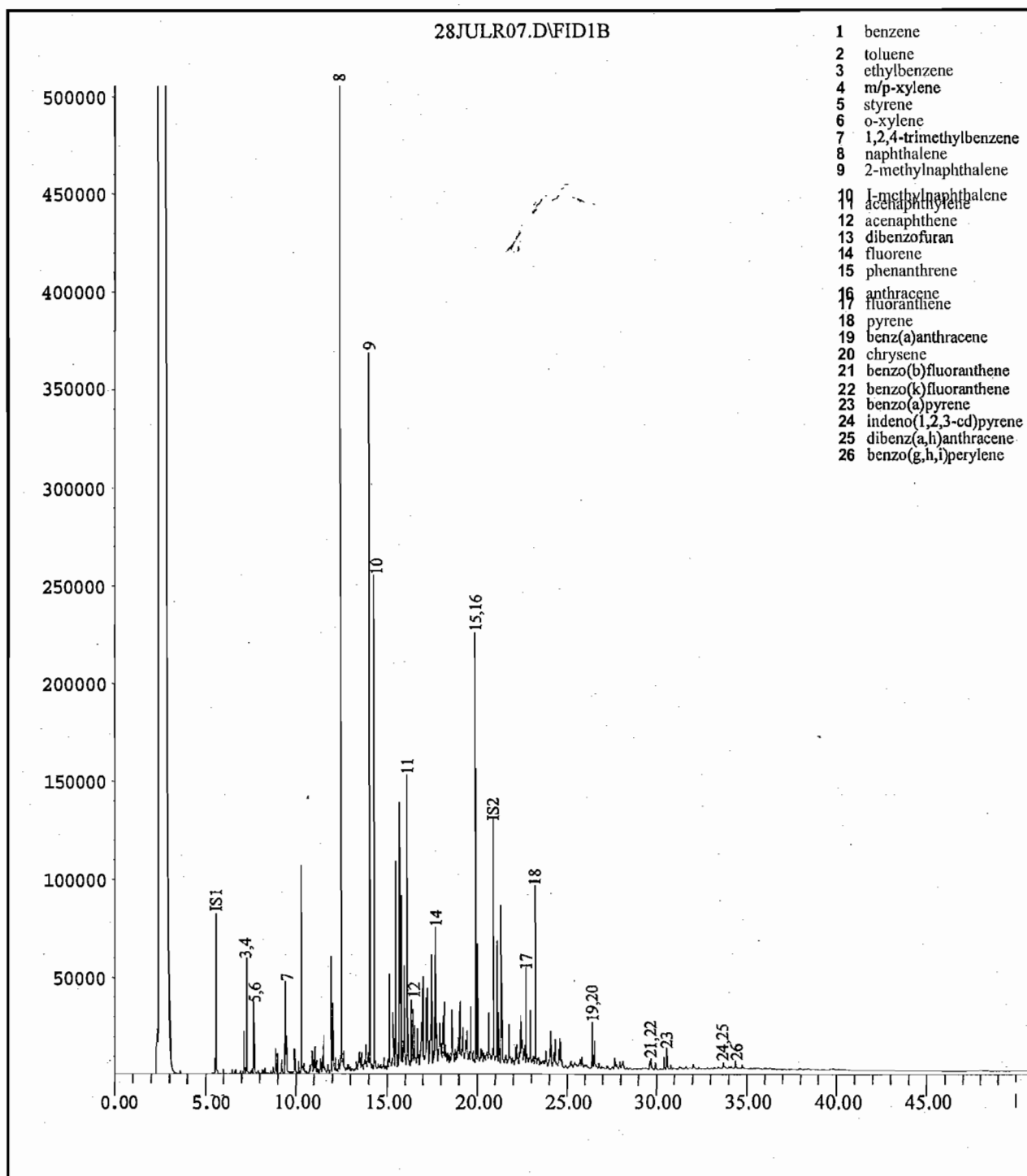
GC/FID Fingerprint



IS1 - 2,4-difluorotoluene
IS2 - o-terphenyl

Field ID: HIMW-11S
Laboratory ID: DB020717-02
Method: MET4007D

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene
IS2 - o-terphenyl

Field ID: **HIMW-01S**
Laboratory ID: **DB020717-03**
Method: **MET4007D**

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Client Name	Project Name	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client Project	Container/Storage
DB020717-01	Duirka & Barti	KSE-Hempste	HIMW-10S	LNAPL	2512/4007	07/16/02	07/17/02		40mL VOA
DB020717-02	Duirka & Barti	KSE-Hempste	HIMW-11S	LNAPL	2512/4007	07/16/02	07/17/02		40mL VOA
DB020717-03a	Duirka & Barti	KSE-Hempste	HIMW-01S	DNAPL	2512/4007	07/16/02	07/17/02		2x40mL VO

7/17/02

Appendix I

META Letter Report December 2, 2002

December 2, 2002

Mr. Tom Fox
Dvirka & Bartilucci
330 Crossways Park Drive
Woodbury, NY 11797

RE: Hempstead

Dear Mr. Fox:

This package contains the analytical results from two non-aqueous phase liquid (NAPL) samples received on November 1, 2002 by META Environmental, Inc. (META) from Dvirka & Bartilucci.

Methods

Sample HIMW-06S was prepared by waste dilution (EPA 3580) using DCM. The extract was spiked with internal standard and fingerprinted by gas chromatography with a flame ionization detector (GC/FID). An aliquot of each sample was also subcontracted for viscosity and specific gravity analyses.

Results

Sample HIMW-06S contained a pyrogenic substance. Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

The pattern of PAHs, especially the ratios of fluoranthene to pyrene and dibenzofuran to fluorene, indicate that this material is MGP tar, probably from a carburetted water gas (CWG) process. The presence of MAHs and the high concentration of naphthalene relative to other PAHs indicate that this sample is relatively unweathered.

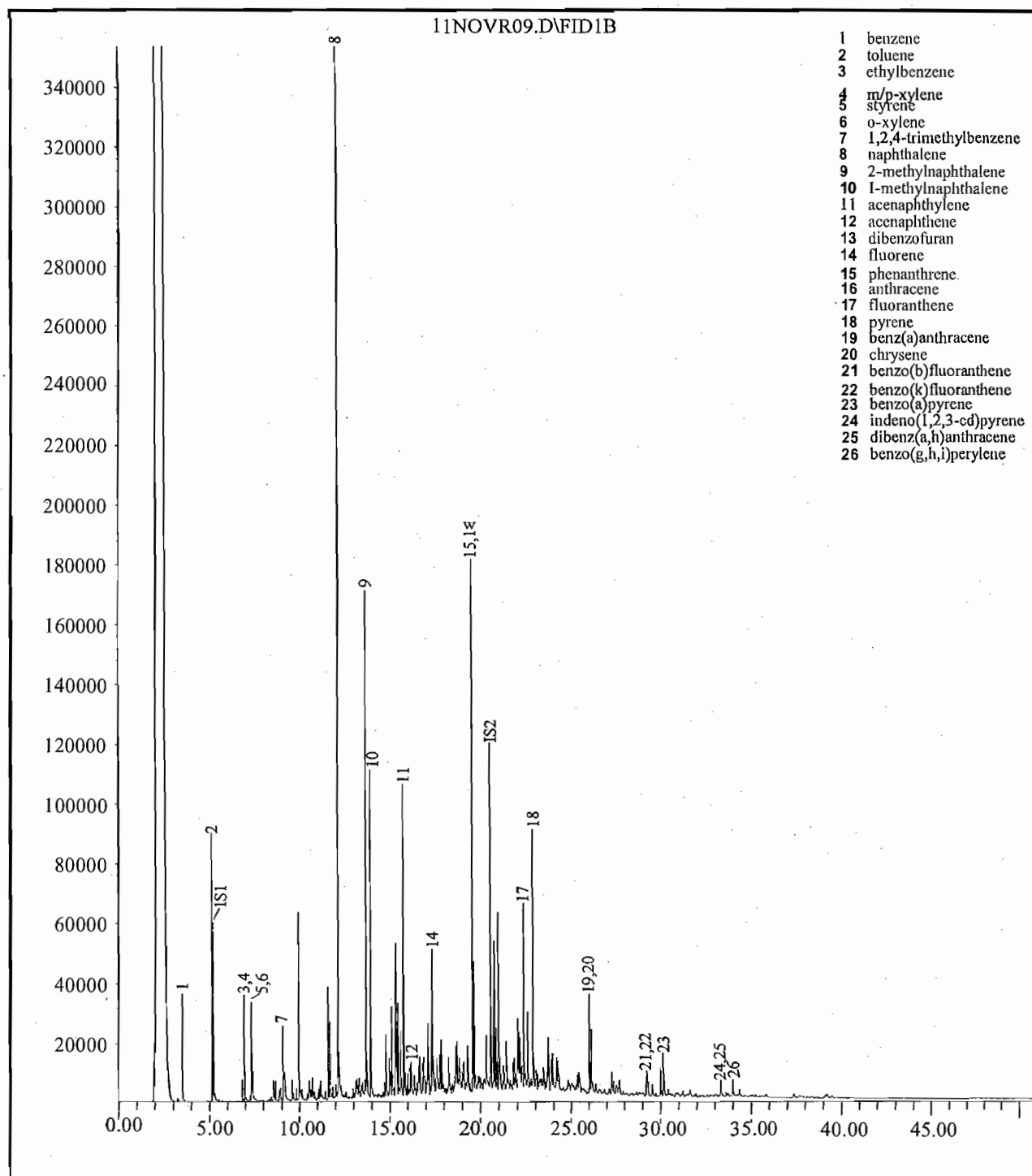
META can perform additional analyses to further characterize these samples if dictated by the project objectives. Please do not hesitate to contact me if you have any questions about these data or would like META to perform additional analyses.

Sincerely,



David Craig
Laboratory Director

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

IS2 - o-terphenyl

SS1 - fluorobenzene

SS2 - 2-fluorobiphenyl

SS3 - 5 α -androstane

Field ID: HIMW-06S

Laboratory ID: DB021101-01

Method: MET4007D

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client/Project	Container/Storage
DB021101-01a,b	HIMW-06S	NAPL	Viscosity	10/31/2002	11/1/2002	D07002-60	2x40ml VOA
DB021101-02a,b	HIMW-11S	NAPL	Viscosity	10/31/2002	11/1/2002	D07002-60	2x40ml VOA

David
11/01/02

PROJECT NAME	Henstead Former MGP
--------------	---------------------

COMPANY Dixie and Bantline's

ADDRESS 330 Crossways Park Drive Woodbury NY 11797

PHONE (516) 364-9890 FAX (516) 364-9045

EMAIL tf0x@db-eng.com

SAMPLED BY

Innocent Tszivq
(Print Name)

(Signature)

(Print Name)

(Signature)

(Print Name)

(Signature)

[illegible]

Fed Exp.

- Note: Do not need petro finger-print on HTHW 11.2
- PLS attempt to get viscosity / specific gravity of the oil / NAPL only
- Standard Turnaround

Method of Shipment:

49 Clarendon Street
Watertown, MA 02472
TEL (617) 923-4662
FAX (617) 923-4610
WWW.METAENV.COM

Environmental, Inc.

META

ENGINEERING & CHEMISTRY

GALBRAITH LABORATORIES, INC.**LABORATORY REPORT**

Mr David Craig
META Environmental Inc
49 Clarendon St
Watertown MA 02472

Report Date: 11/25/02
Purchase Order #: 5664
Fax Number: 617-923-4610

SAMPLE ID	LAB ID	ANALYSIS	RESULT(S)
DB 021101-01	0-6266	Specific Gravity	1.0238
		Viscosity-Kinematic	*
DB 021101-02	0-6267	Specific Gravity	0.8831
		Viscosity-Kinematic	4.212 cSt

j2

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GALBRAITH LABORATORIES, INC.

LABORATORY REPORT

Mr David Craig
META Environmental Inc

Report Date: 11/25/02
Lab I.D.: 0-6266-67

TECHNICAL INFORMATION:

*We regret that we were unable to determine the viscosity of this sample due to multiple layers.

PD:bs

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Page 2

2323 Sycamore Drive
Knoxville, TN 37921-1700
TOLL FREE 877.449.8797



P.O. Box 51610
Knoxville, TN 37950-1610
FAX 865.546.7209

CHAIN OF CUSTODY RECORD

PROJECT NAME 07002-60

COMPANY Galboath Laboratories, Inc.

ADDRESS 2323 SyCamore Dr. Knoxville, TN 37921

PHONE FAX

E.M.

SAMPLED BY

(Print Name)

(Signature)

(Print Name)

(Signature)

(Print Name)

(Signature)

SAMPLE NO.

TIME

INITIALS

SAMPLE ID
(SAMPLE LOCATION)CONTAINER
SIZE

G/P

GRAB

COMP

NO OF
CONTAINERSSAMPLE
MATRIX

PRESERVATIVE

ANALYSES

Viscosity
Spec. Grav.

COMMENTS

1

DB 021101-01

40ml G

1

NAPL

—

X

X

2

DB 021101-02

40ml G

1

NAPL

—

X

X

Relinquished by

Date/Time

Relinquished by

Date/Time

Relinquished by

Date/Time

Received by

Date/Time

Received by

Date/Time

Received for Laboratory by

Date/Time

Method of Shipment

Remarks

Temp

Temp _____ °C

NOV 8 2002

U-V-L-4-4-1

49 Clarendon Street
Watertown, MA 02472
TEL: (617) 923-4662
FAX: (617) 923-4610
WWW.METAENV.COMKTA
Environmental Inc.

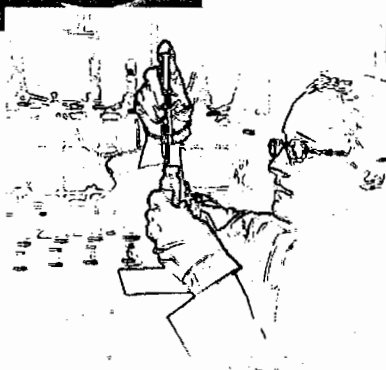
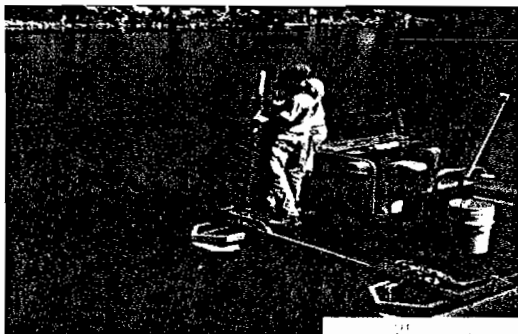
ENGINEERING & CHEMISTRY

Appendix J
META Environmental Forensic Report
October 17, 2003

Environmental Forensic Report

Key-PSS

SDG: HT030913

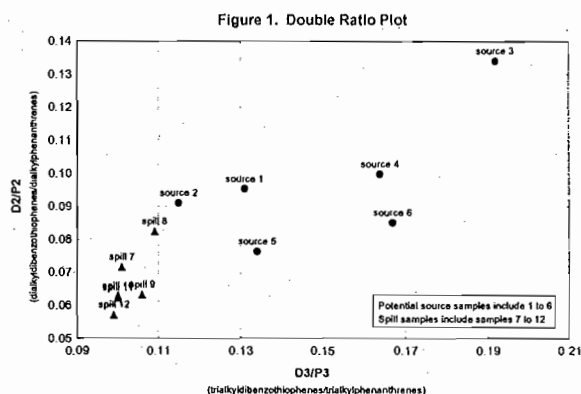


Report To:
H2M Labs
575 Broad Hollow Road
Melville, NY 11747

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

October 17, 2003



Identifying and allocating sources of pollutants in complex environments.

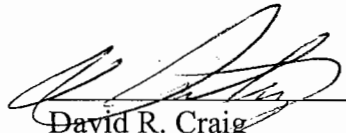
Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

Phone: 617-923-4662
Fax: 617-923-4610
e-Mail: meta@metaenv.com

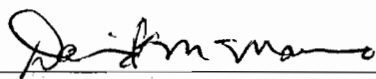
Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director and Quality Assurance Officer, as verified by the following signatures.



David R. Craig
Laboratory Director, META Environmental, Inc.

10/17/03
Date



David M. Mauro
Quality Assurance Officer, META Environmental, Inc.

10/17/03
Date

Sample Delivery Group Narrative

Project: Key-PSS

Client: H2M Labs, Inc.
575 Broad Hollow Road
Melville, NY 11747-5076

Report Contact: Jennifer Aracri

Date of Receipt: 9/13/03

Sample Summary:

The samples received for this project are summarized in the attached sample login forms.

META Project Number: H09002-60

Chain of Custody

Samples were received in good condition. The internal temperatures of the shipment containers were as follows:

Sample received 9/13/2003 12°C

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page.

The disposal of samples and extracts will be authorized 1 month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100 mod.) and GC/MS (EPA 8270 mod.).

Results

Sample results were presented in summary forms (CLP Form 1 equivalent) which follow this narrative.

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." No value was reported above the calibration range. Undetected analytes were flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

All samples were prepared within 7 days of collection. All samples and extracts were stored at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to extraction and analysis. All extracts were analyzed within 40 days of sample preparation.

Blanks

The soil blank contained a low concentration of naphthalene. This compound in the effected samples was "B" flagged. Samples containing concentrations of this compound less than five times that found in the blank should be evaluated for positive bias.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards with the exception of the soil blank spike.

Interpretation

Sample 0309377-001A

This sample contained pyrogenic and petrogenic substances (see definitions). The pyrogenic material is evidenced by the pattern of unsubstituted PAHs. The presence of MAHs and the high concentration of naphthalene relative to other PAHs indicate that this material is relatively unweathered.

The petroleum eluted as an unresolved complex mixture (UCM or "hump") which eluted from approximately octane (C8 - 7 minutes) to beyond hexatriacontane (C36 - 32 minutes). Common products with these features include wide range distillates such as gas oil and some blended products such as #6 fuel oils. These types of mixed materials are sometimes seen at MGP sites, but could have arisen from separate sources.

Sample 0309377-002A

This sample contained pyrogenic and petrogenic materials similar to those found in sample 030977-001A.

Discussion

Both samples contained pyrogenic PAHs. The concentrations and ratios of PAHs in samples 0309377-001A and -002A indicate that these samples contain tar from a relatively low temperature process. The variations in the diagnostic ratios (Table 1) between these samples may be indicative of separate sources, or could be related to variations in process conditions over time.

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

- 1 "Chemical Source Attribution at Former MGP Sites," EPRI Report 1000728, December 2000.

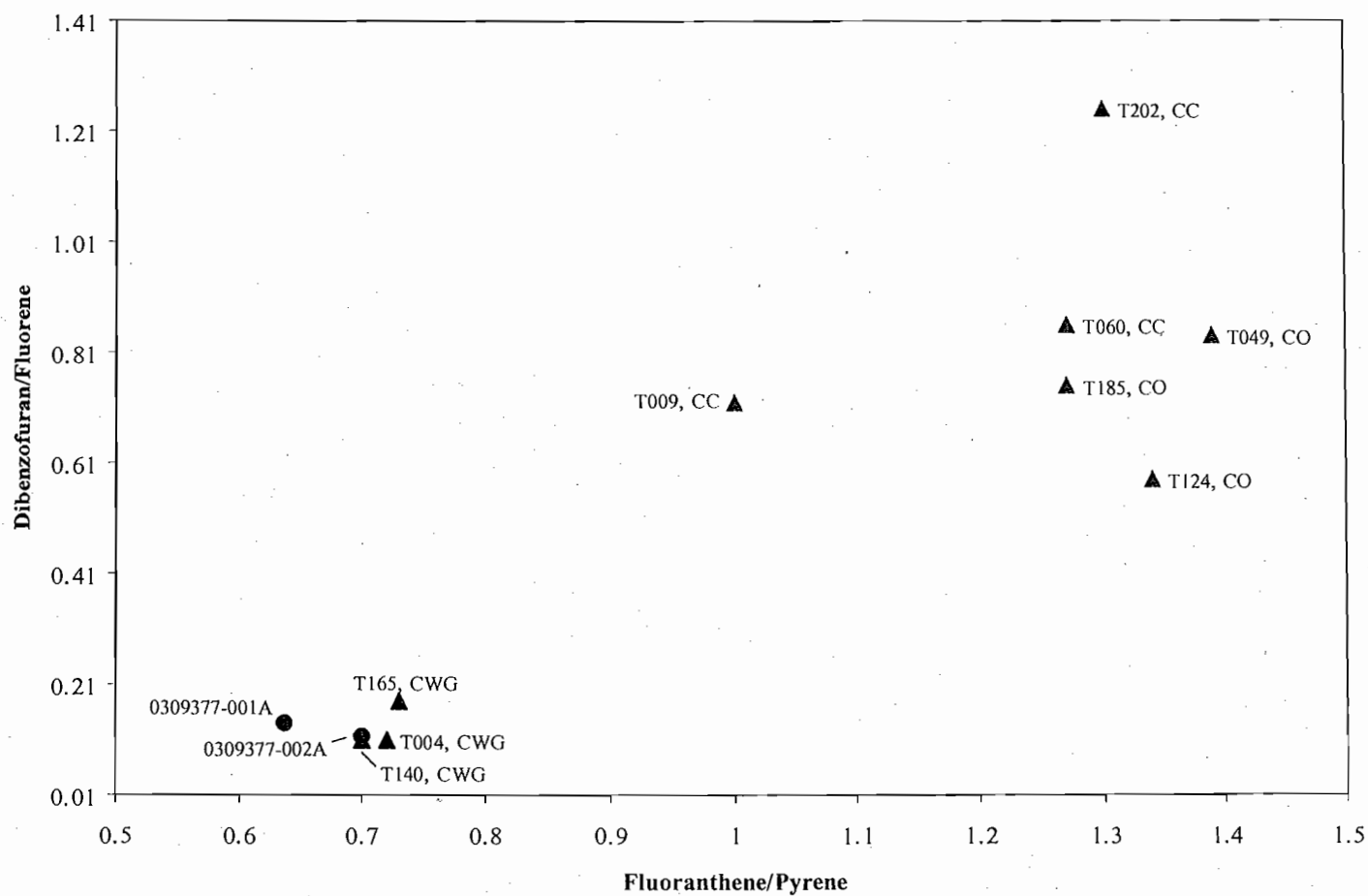
Table 1
Source and Weathering Ratios

Sample	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA
0309377-001A	0.64	0.14	0.02	0.05	1.64	0.71	0.38
0309377-002A	0.70	0.12	0.02	0.05	1.75	0.55	0.31

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	septadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes

Figure 1
Selected Source Ratios



TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CWG Carburetted Water Gas Tar
 • Site Sample

Appendix A

Chains of Custody

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client/Project	Container/Storage	Comments/Logger	Client Name
HT030913-01	0309377-001A	soil	4008	9/10/2003	9/13/2003		16oz. Jar		H2M
HT030913-02	0309377-002A	soil	4008	9/10/2003	9/13/2003		16oz. Jar		H2M

Ben Geyer 9/13/03

H2M LABS, INC.

575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
49 Clarendon Street

Attn: David Craig

TEL: (617) 923-4862
FAX:

H2M Client : KEY-PSS

Watertown, Massachusetts 02472

SDG PSS 008

12-Sep-03

Requested Tests

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests
0309377-001A	Soil	9/10/2003 10:07:00 AM	16-OZJAR	
0309377-002A	Soil	9/10/2003 10:10:00 AM	16-OZJAR	

HT030913-01
-02

Comments:

Please analyze for GCFID Fingerprint WITH GC/MS Fingerprint Categorization. Please reference PO L-8927 at a cost of \$460.00 per sample. Full data package required.

Date/Time

9/12/03

Relinquished by:

Karen E. Tye

Received by:

Bin Day

Received by:

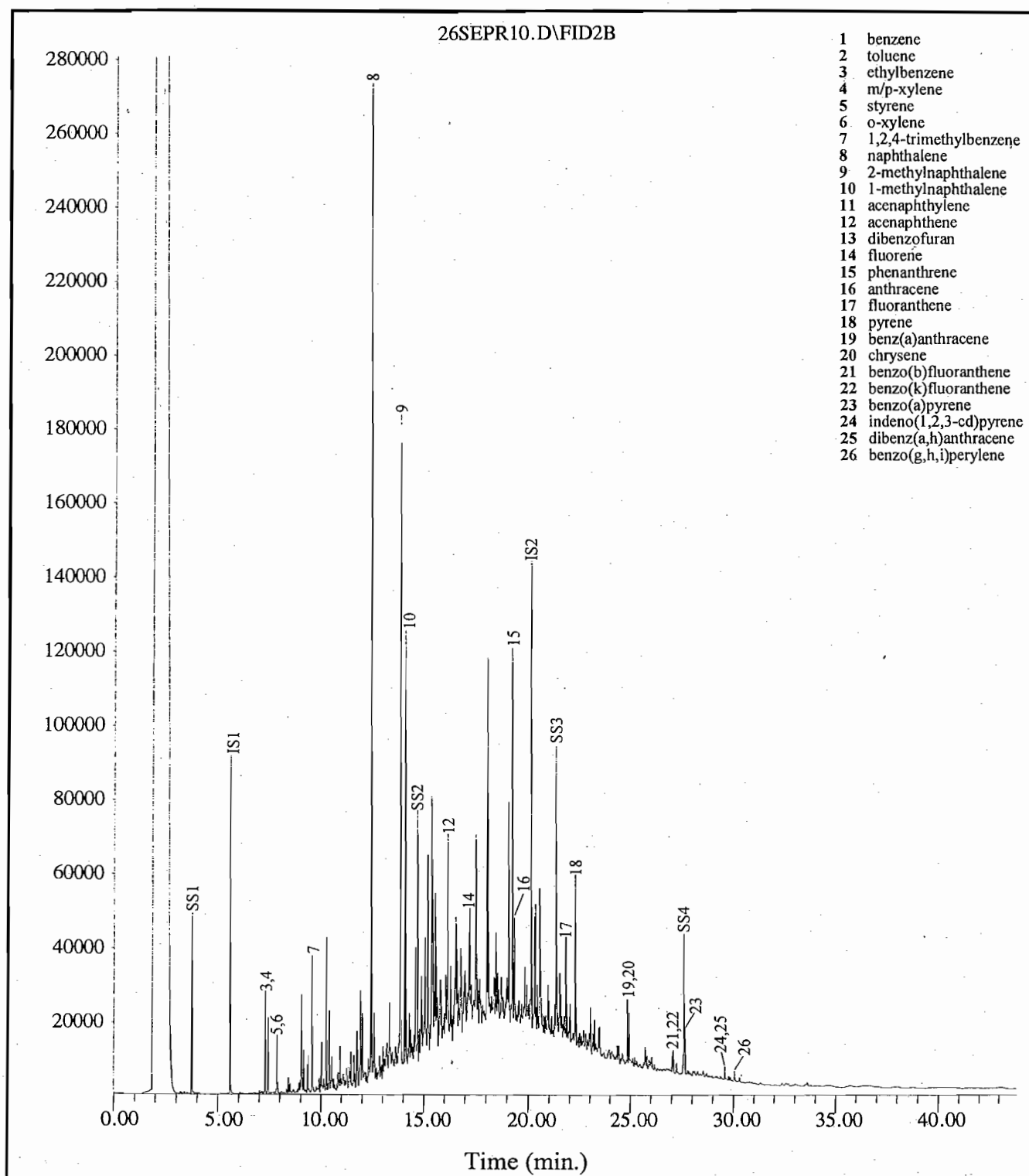
Date/Time

9/13/03 12:00PM
@ -12.0C

Appendix B

GC/FID Fingerprints

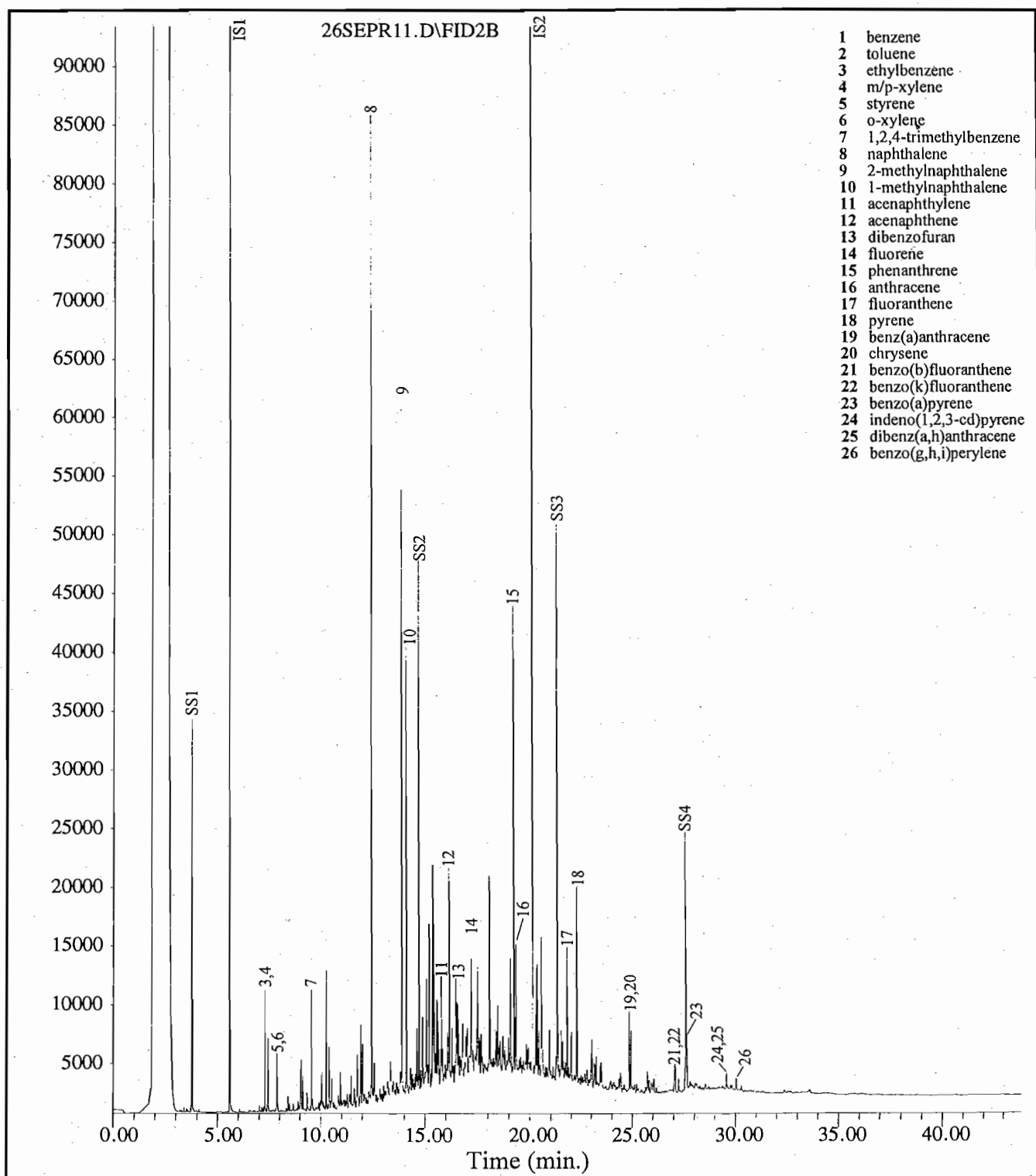
GC/FID Fingerprint



IS1 – 2,4-difluorotoluene
IS2 – o-terphenyl
SS1 – fluorobenzene
SS2 – 2-fluorobiphenyl
SS3 – 5 α -androstane
SS4 – benzo(a)pyrene-d12

Field ID: 0309377-001A
Laboratory ID: HT030913-01
Method: MET4007

GC/FID Fingerprint



IS1 – 2,4-difluorotoluene

IS2 – o-terphenyl

SS1 – fluorobenzene

SS2 – 2-fluorobiphenyl

SS3 – 5 α -androstande

SS4 – benzo(a)pyrene-d12

Field ID: 0309377-002A

Laboratory ID: HT030913-02

Method: MET4007

Appendix C

Chemical Concentrations

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309377-001A

 Client: H2M
 Project: KEY-PSS

 Lab ID: HT030913-01
 File ID: 24SEP28.D

 Date Sampled: 9/10/2003
 Date Received: 9/13/2003
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 1:09 pm
 Instrument: GC4-MS_59
 Operator: LKD

Preparation Method: EPA 3570

Cleanup Method(s):

 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: SOIL
 Preservation: None
 Decanted: No

 Sample Size: 2.087 g
 %Solid: 96%
 Extract Volume: 1.4 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene	0.04	J	0.07	0.03	
Toluene	0.06	J	0.07	0.03	
Ethylbenzene	8.44		0.07	0.03	
m/p-Xylenes	6.87		0.07	0.03	
Styrene	0.41		0.07	0.03	
o-Xylene	4.71		0.07	0.03	
1,2,4-Trimethylbenzene	10.2		0.07	0.03	
Naphthalene	53.2	B	0.07	0.03	
2-Methylnaphthalene	44.7		0.07	0.03	
1-Methylnaphthalene	28.0		0.07	0.03	
Acenaphthylene	1.32		0.07	0.03	
Acenaphthene	10.8		0.07	0.03	
Dibenzofuran	1.03		0.07	0.03	
Fluorene	7.37		0.07	0.03	
Phenanthrene	26.2		0.07	0.03	
Anthracene	7.82		0.07	0.03	
Fluoranthene	8.02		0.07	0.03	
Pyrene	12.6		0.07	0.03	
Benz[a]anthracene	5.27		0.07	0.03	
Chrysene	4.65		0.07	0.03	
Benzo[b]fluoranthene	1.46		0.07	0.03	
Benzo[k]fluoranthene	2.10		0.07	0.03	
Benzo(e)pyrene	1.84		0.07	0.03	
Benzo[a]pyrene	3.39		0.07	0.03	
Perylene	0.40		0.07	0.03	
Indeno[1,2,3-cd]pyrene	1.42		0.07	0.03	
Dibenz[a,h]anthracene	0.46		0.07	0.03	
Benzo[g,h,i]perylene	1.29		0.07	0.03	

ALKYLATED PAHs:

C0-Benzene	0.04	J	0.07	0.03	
C1-Benzene	0.07		0.07	0.03	
C2-Benzene	23.9		0.07	0.03	
C3-Benzene	36.2		0.07	0.03	
C4-Benzene	20.1		0.07	0.03	
C5-Benzene	5.13		0.07	0.03	
C0-Naphthalene	53.2		0.07	0.03	
C1-Naphthalene	41.5		0.07	0.03	
C2-Naphthalene	30.3		0.07	0.03	
C3-Naphthalene	14.4		0.07	0.03	
C4-Naphthalene	5.79		0.07	0.03	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309377-001A

 Client: H2M
 Project: KEY-PSS

 Lab ID: HT030913-01
 File ID: 24SEP28.D

 Date Sampled: 9/10/2003
 Date Received: 9/13/2003
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 1:09 pm
 Instrument: GC4-MS_59
 Operator: LKD

Preparation Method: EPA 3570

Cleanup Method(s):

 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: SOIL
 Preservation: None
 Decanted: No

 Sample Size: 2.087 g
 %Solid: 96%
 Extract Volume: 1.4 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	7.37		0.07	0.03	
C1-Fluorene	9.10		0.07	0.03	
C2-Fluorene	4.07		0.07	0.03	
C3-Fluorene	1.87		0.07	0.03	
C0-Phenanthrene/Anthracene	33.9		0.07	0.03	
C1-Phenanthrene/Anthracene	21.4		0.07	0.03	
C2-Phenanthrene/Anthracene	8.59		0.07	0.03	
C3-Phenanthrene/Anthracene	2.52		0.07	0.03	
C4-Phenanthrene/Anthracene	0.66		0.07	0.03	
C0-Dibenzothiophene	2.41		0.07	0.03	
C1-Dibenzothiophene	3.86		0.07	0.03	
C2-Dibenzothiophene	3.30		0.07	0.03	
C3-Dibenzothiophene	1.79		0.07	0.03	
C0-Fluoranthene/Pyrene	24.8		0.07	0.03	
C1-Fluoranthene/Pyrene	10.2		0.07	0.03	
C2-Fluoranthene/Pyrene	3.35		0.07	0.03	
C3-Fluoranthene/Pyrene	0.82		0.07	0.03	
C0-Benz(a)anthracene/Chrysene	10.7		0.07	0.03	
C1-Benz(a)anthracene/Chrysene	3.57		0.07	0.03	
C2-Benz(a)anthracene/Chrysene	1.23		0.07	0.03	
C3-Benz(a)anthracene/Chrysene	0.24		0.07	0.03	
C4-Benz(a)anthracene/Chrysene	0.15		0.07	0.03	

EXTRACTION SURROGATE COMPOUNDS:

	%R	Min	Max
Fluorobenzene	74%	50%	150%
2-Fluorobiphenyl	65%	50%	120%
5a-Androstane	95%	50%	120%
Benzo(a)pyrene-d12	86%	50%	120%

FRACTIONATION SURROGATE COMPOUNDS:

2,5-Dibromotoluene	Not Spiked	50%	150%
2-Bromonaphthalene	Not Spiked	50%	150%
1-Chlorooctadecane	40%	50%	150%

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309377-002A

Preparation Method: EPA3570

Cleanup Method(s):

 Client: H2M
 Project: KEY-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

 Lab ID: HT030913-02
 File ID: 24SEP29.D

 Matrix: Soil
 Preservation: None
 Decanted: No

 Date Sampled: 9/10/2003
 Date Received: 9/13/2003
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 2:22 pm
 Instrument: GC4-MS_59
 Operator: LKD

 Sample Size: 1.952 g
 %Solid: 79%
 Extract Volume: 1.6 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene		U	0.10	0.05	
Toluene		U	0.10	0.05	
Ethylbenzene	4.38		0.10	0.05	
m/p-Xylenes	2.79		0.10	0.05	
Styrene	0.18		0.10	0.05	
o-Xylene	2.09		0.10	0.05	
1,2,4-Trimethylbenzene	3.93		0.10	0.05	
Naphthalene	29.7	B	0.10	0.05	
2-Methylnaphthalene	24.4		0.10	0.05	
1-Methylnaphthalene	14.4		0.10	0.05	
Acenaphthylene	0.69		0.10	0.05	
Acenaphthene	5.78		0.10	0.05	
Dibenzofuran	0.48		0.10	0.05	
Fluorene	4.13		0.10	0.05	
Phenanthrene	15.1		0.10	0.05	
Anthracene	4.49		0.10	0.05	
Fluoranthene	4.36		0.10	0.05	
Pyrene	6.23		0.10	0.05	
Benz[a]anthracene	2.63		0.10	0.05	
Chrysene	2.33		0.10	0.05	
Benzo[b]fluoranthene	0.80		0.10	0.05	
Benzo[k]fluoranthene	1.11		0.10	0.05	
Benzo(e)pyrene	1.00		0.10	0.05	
Benzo[a]pyrene	1.90		0.10	0.05	
Perylene	0.21		0.10	0.05	
Indeno[1,2,3-cd]pyrene	0.74		0.10	0.05	
Dibenz[a,h]anthracene	0.18		0.10	0.05	
Benzo[g,h,i]perylene	0.67		0.10	0.05	

ALKYLATED PAHs:

C0-Benzene		U	0.10	0.05	
C1-Benzene		U	0.10	0.05	
C2-Benzene	11.5		0.10	0.05	
C3-Benzene	11.9		0.10	0.05	
C4-Benzene	7.07		0.10	0.05	
C5-Benzene	1.44		0.10	0.05	
C0-Naphthalene	29.7		0.10	0.05	
C1-Naphthalene	22.0		0.10	0.05	
C2-Naphthalene	12.5		0.10	0.05	
C3-Naphthalene	4.63		0.10	0.05	
C4-Naphthalene	1.72		0.10	0.05	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309377-002A

Preparation Method: EPA3570

Cleanup Method(s):

 Client: H2M
 Project: KEY-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

 Lab ID: HT030913-02
 File ID: 24SEP29.D

Matrix: Soil

Preservation: None

Decanted: No

 Date Sampled: 9/10/2003
 Date Received: 9/13/2003
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 2:22 pm
 Instrument: GC4-MS_59
 Operator: LKD

 Sample Size: 1.952 g
 %Solid: 79%
 Extract Volume: 1.6 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	4.13		0.10	0.05	
C1-Fluorene	4.02		0.10	0.05	
C2-Fluorene	1.43		0.10	0.05	
C3-Fluorene	0.54		0.10	0.05	
C0-Phenanthrene/Anthracene	19.5		0.10	0.05	
C1-Phenanthrene/Anthracene	8.89		0.10	0.05	
C2-Phenanthrene/Anthracene	2.89		0.10	0.05	
C3-Phenanthrene/Anthracene	0.75		0.10	0.05	
C4-Phenanthrene/Anthracene	0.18		0.10	0.05	
C0-Dibenzothiophene	0.97		0.10	0.05	
C1-Dibenzothiophene	1.26		0.10	0.05	
C2-Dibenzothiophene	0.89		0.10	0.05	
C3-Dibenzothiophene	0.41		0.10	0.05	
C0-Fluoranthene/Pyrene	12.6		0.10	0.05	
C1-Fluoranthene/Pyrene	4.30		0.10	0.05	
C2-Fluoranthene/Pyrene	1.35		0.10	0.05	
C3-Fluoranthene/Pyrene	0.25		0.10	0.05	
C0-Benz(a)anthracene/Chrysene	5.12		0.10	0.05	
C1-Benz(a)anthracene/Chrysene	1.47		0.10	0.05	
C2-Benz(a)anthracene/Chrysene	0.49		0.10	0.05	
C3-Benz(a)anthracene/Chrysene	0.09	J	0.10	0.05	
C4-Benz(a)anthracene/Chrysene	0.14		0.10	0.05	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	52%		50%	150%	
2-Fluorobiphenyl	49%		50%	120%	
5a-Androstane	61%		50%	120%	
Benzo(a)pyrene-d12	56%		50%	120%	

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Preparation Method: EPA3570

Cleanup Method(s):

 Client: H2M
 Project: Key-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

 Lab ID: IS030917-SB
 File ID: 24SEP16.D

 Matrix: Soil
 Preservation: None
 Decanted: No

 Date Sampled:
 Date Received:
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 1:07 am
 Instrument: GC4-MS_59
 Operator: LKD

 Sample Size: 2 g
 %Solid: 100%
 Extract Volume: 1.5 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene		U	0.08	0.04	
Toluene		U	0.08	0.04	
Ethylbenzene		U	0.08	0.04	
m/p-Xylenes		U	0.08	0.04	
Styrene		U	0.08	0.04	
o-Xylene		U	0.08	0.04	
1,2,4-Trimethylbenzene		U	0.08	0.04	
Naphthalene	0.05	J	0.08	0.04	
2-Methylnaphthalene		U	0.08	0.04	
1-Methylnaphthalene		U	0.08	0.04	
Acenaphthylene		U	0.08	0.04	
Acenaphthene		U	0.08	0.04	
Dibenzofuran		U	0.08	0.04	
Fluorene		U	0.08	0.04	
Phenanthrene		U	0.08	0.04	
Anthracene		U	0.08	0.04	
Fluoranthene		U	0.08	0.04	
Pyrene		U	0.08	0.04	
Benz[a]anthracene		U	0.08	0.04	
Chrysene		U	0.08	0.04	
Benzo[b]fluoranthene		U	0.08	0.04	
Benzo[k]fluoranthene		U	0.08	0.04	
Benzo(e)pyrene		U	0.08	0.04	
Benzo[a]pyrene		U	0.08	0.04	
Perylene		U	0.08	0.04	
Indeno[1,2,3-cd]pyrene		U	0.08	0.04	
Dibenz[a,h]anthracene		U	0.08	0.04	
Benzo[g,h,i]perylene		U	0.08	0.04	

EXTRACTION SURROGATE COMPOUNDS:

	%R	Min	Max
Fluorobenzene	56%	50%	150%
2-Fluorobiphenyl	60%	50%	120%
5a-Androstane	75%	50%	120%
Benzo(a)pyrene-d12	73%	50%	120%

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client: H2M
 Project: Key-PSS
 Lab ID: IS030917-SBS
 File ID: 24SEP17.D
 Date Sampled:
 Date Received:
 Date Prepared: 9/17/2003
 Date Cleanup:
 Date Analyzed: 25 Sep 2003 2:16 am
 Instrument: GC4-MS_59
 Operator: LKD

Preparation Method: EPA3570
 Cleanup Method(s):
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2 g
 %Solid: 100%
 Extract Volume: 1.5 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: IS030917-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	% Rec
PAH COMPOUNDS:					
Benzene	5.94		0.08	0.04	35.64%
Toluene	7.08		0.08	0.04	42.48%
Ethylbenzene	7.60		0.08	0.04	45.60%
m/p-Xylenes	7.29		0.08	0.04	43.74%
Styrene	8.02		0.08	0.04	48.12%
o-Xylene	7.39		0.08	0.04	44.34%
1,2,4-Trimethylbenzene	7.73		0.08	0.04	46.38%
Naphthalene	7.35		0.08	0.04	44.10%
2-Methylnaphthalene	8.55		0.08	0.04	51.30%
1-Methylnaphthalene	7.91		0.08	0.04	47.46%
Acenaphthylene	9.00		0.08	0.04	54.00%
Acenaphthene	8.58		0.08	0.04	51.48%
Dibenzofuran	9.08		0.08	0.04	54.48%
Fluorene	10.5		0.08	0.04	63.00%
Phenanthrene	12.9		0.08	0.04	77.40%
Anthracene	14.0		0.08	0.04	84.00%
Fluoranthene	13.6		0.08	0.04	81.60%
Pyrene	13.7		0.08	0.04	82.20%
Benz[a]anthracene	16.3		0.08	0.04	97.80%
Chrysene	14.7		0.08	0.04	88.20%
Benzo[b]fluoranthene	16.5		0.08	0.04	99.00%
Benzo[k]fluoranthene	16.2		0.08	0.04	97.20%
Benzo[a]pyrene	15.3		0.08	0.04	91.80%
Indeno[1,2,3-cd]pyrene	20.0		0.08	0.04	120.00%
Dibenz[a,h]anthracene	17.4		0.08	0.04	104.40%
Benzo[g,h,i]perylene	12.2		0.08	0.04	73.20%

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	23%	50%	150%
2-Fluorobiphenyl	31%	50%	120%
5a-Androstane	53%	50%	120%
Benzo(a)pyrene-d12	48%	50%	120%

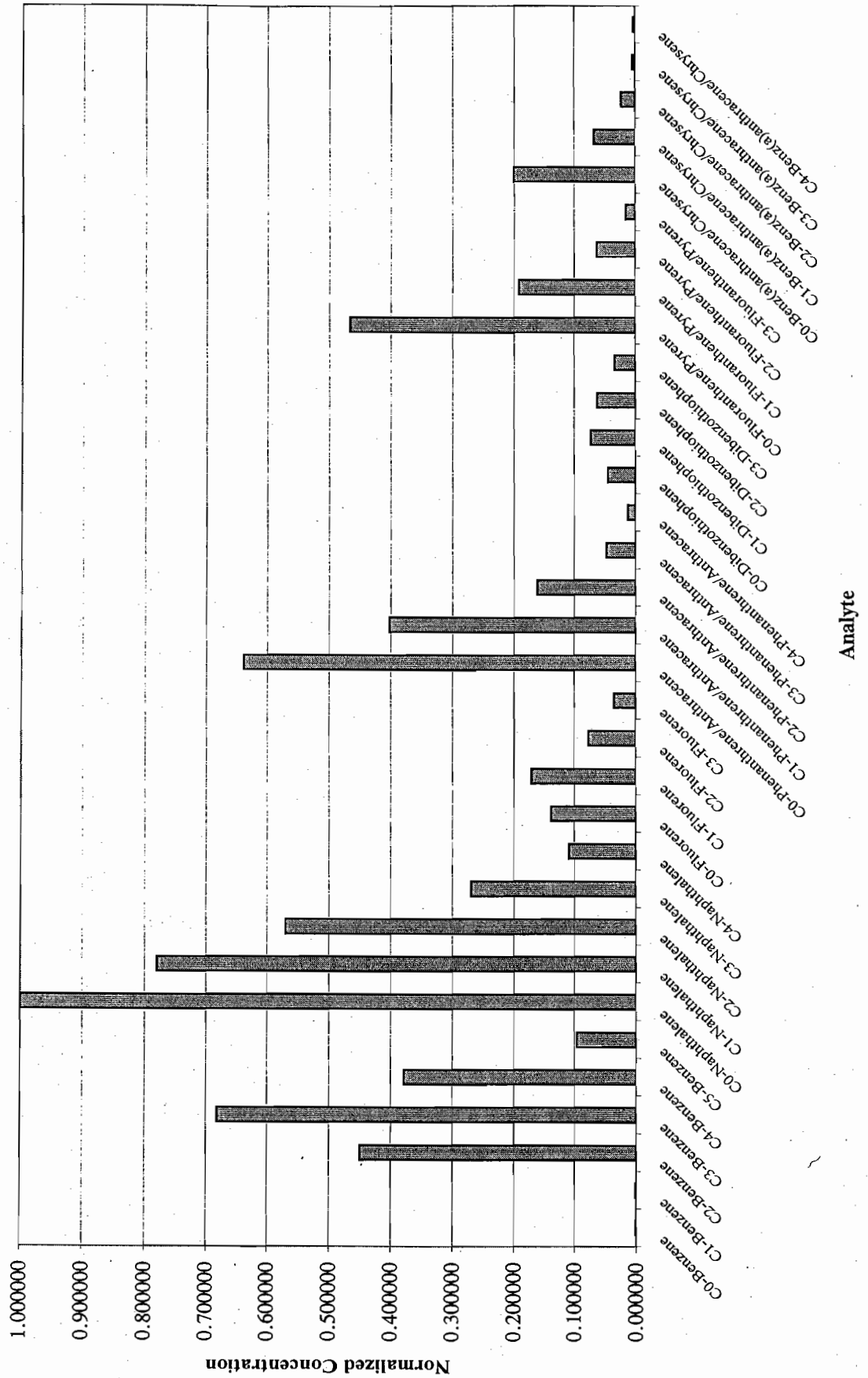
Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

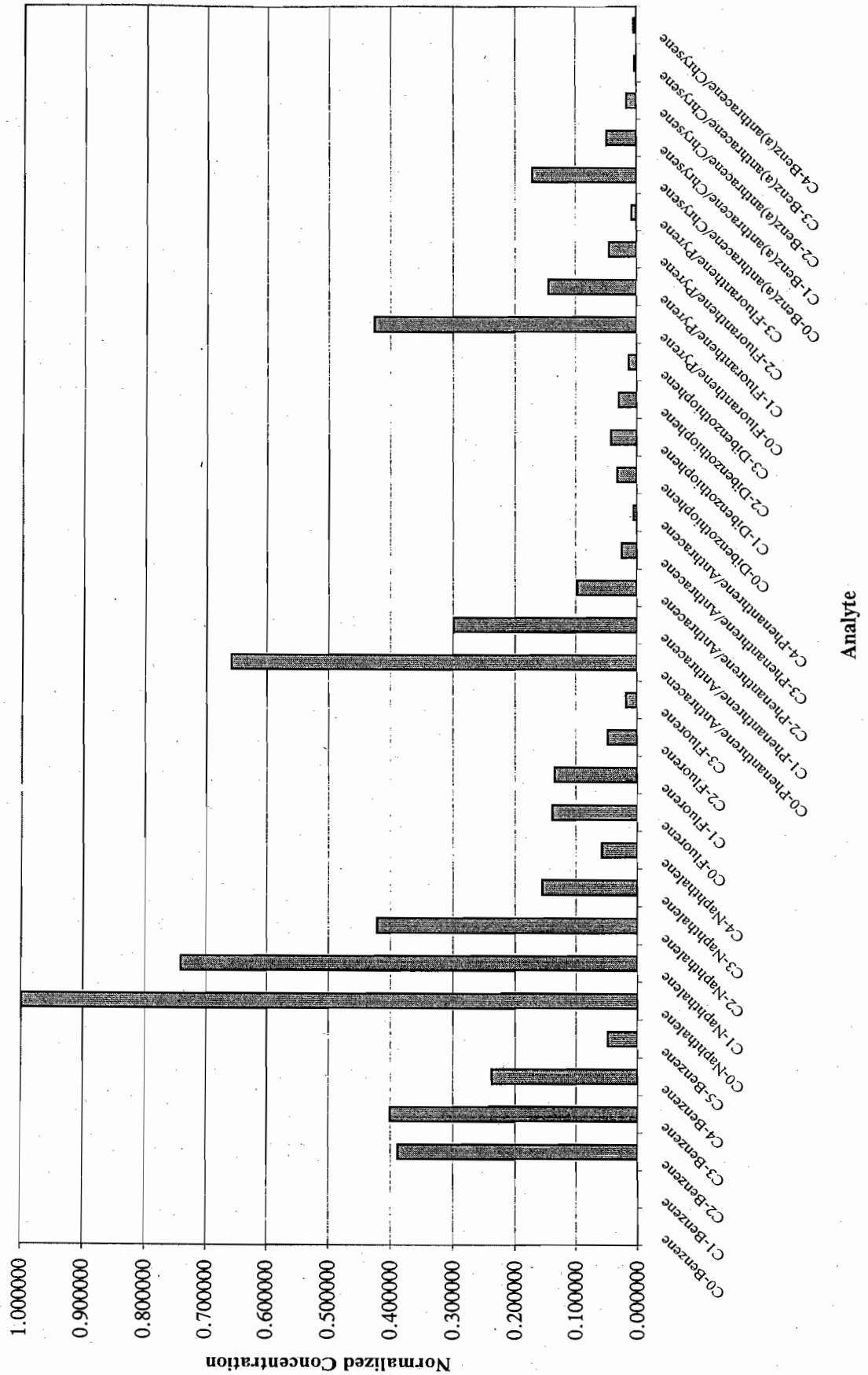
Appendix D

Extended PAH Profiles – Bar Graphs

0309377-001A



0309377-002A



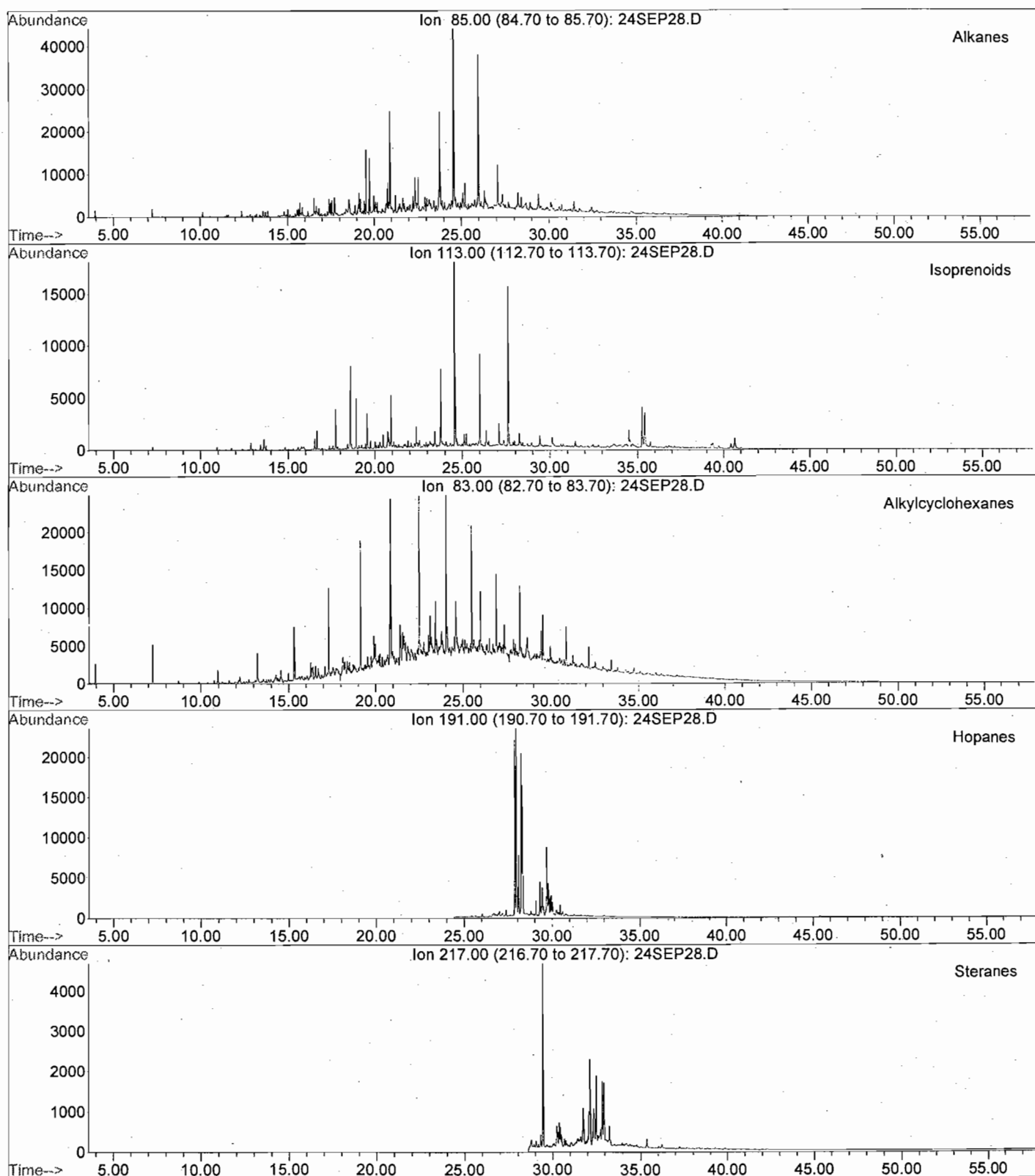
Appendix E

Extracted Ion Current Profiles (EICs)

Primary Ions for Target Compounds and Compound Groups

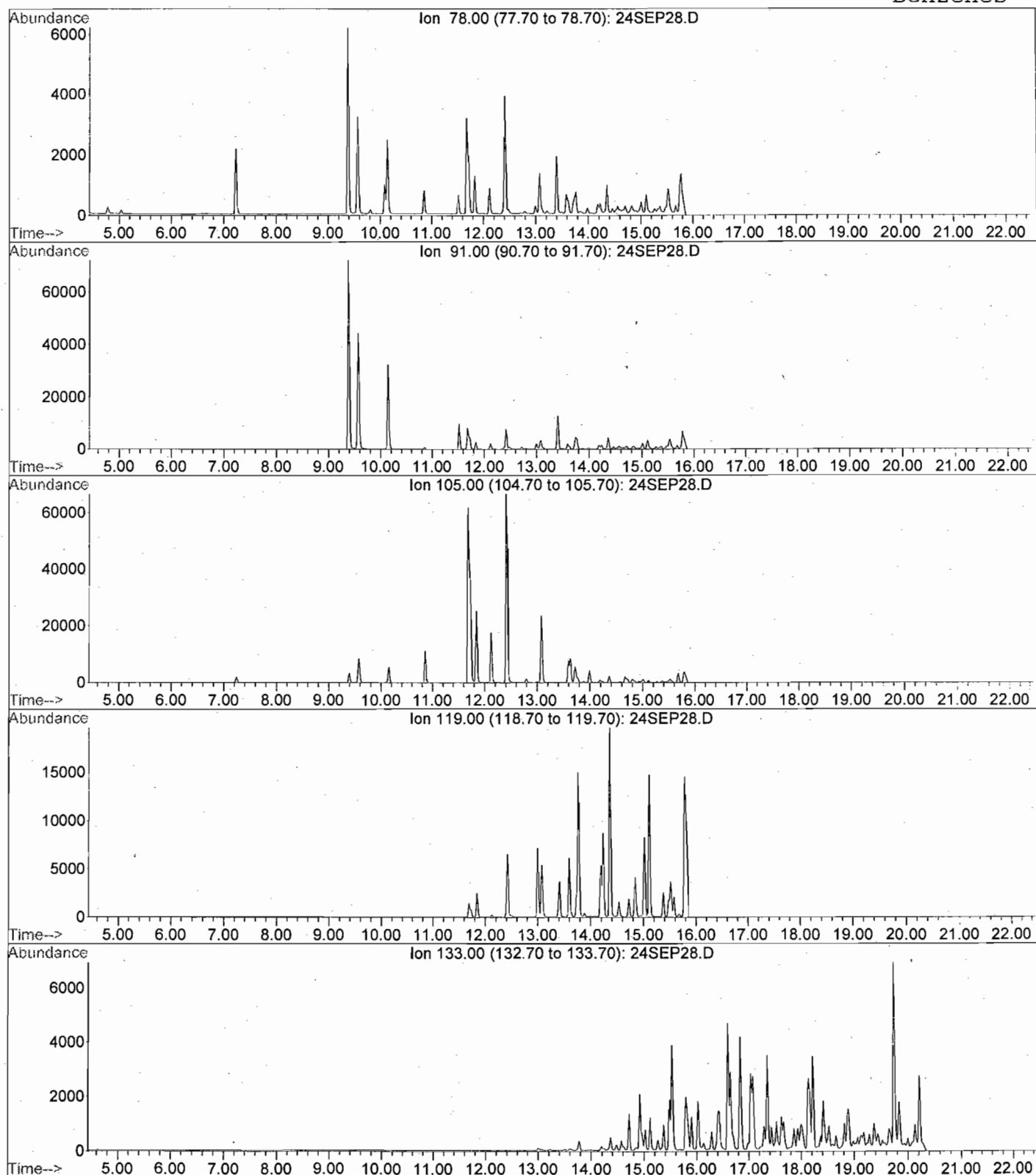
Target Compound or Group	Abbreviation	Ion
Alkylated cyclohexanes		83
Normal alkanes, pristane, phytane		85
Isoprenoid hydrocarbons, pristane, phytane		113
Olefins		115
Hopanes		191
Steranes		217
Benzene	B	78
Monoalkylbenzenes	C1B	91
Dialkylbenzenes	C2B	91
Trialkylbenzenes	C3B	105
Tetraalkylbenzenes	C4B	119
Pentaalkylbenzenes	C5B	133
Naphthalene	N	128
Monoalkylnaphthalenes	C1N	142
Dialkylnaphthalenes	C2N	156
Trialkylnaphthalenes	C3N	170
Tetraalkylnaphthalenes	C4N	184
Fluorene	F	166
Monoalkylfluorenes	C1F	180
Dialkylfluorenes	C2F	194
Trialkylfluorenes	C3F	208
Phenanthrene, anthracene	PA	178
Monoalkylphenanthrenes and anthracenes	C1PA	192
Dialkylphenanthrenes and anthracenes	C2PA	206
Trialkylphenanthrenes and anthracenes	C3PA	220
Tetraalkylphenanthrenes and anthracenes	C4PA	234
Dibenzothiophene	D	184
Monoalkyldibenzothiophenes	C1D	198
Dialkyldibenzothiophenes	C2D	212
Trialkyldibenzothiophenes	C3D	226
Fluoranthene, pyrene	FP	202
Monoalkylfluoranthenes and pyrenes	C1FP	216
Dialkylfluoranthenes and pyrenes	C2FP	230
Trialkylfluoranthenes and pyrenes	C3FP	244
Benz(a)anthracene, chrysene	BC	228
Monoalkylbenz(a)anthracenes and chrysenes	C1BC	242
Dialkylbenz(a)anthracenes and chrysenes	C2BC	256
Trialkylbenz(a)anthracenes and chrysenes	C3BC	270
Tetraalkylbenz(a)anthracenes and chrysenes	C4BC	284

Field ID: 0309377-001A
Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD



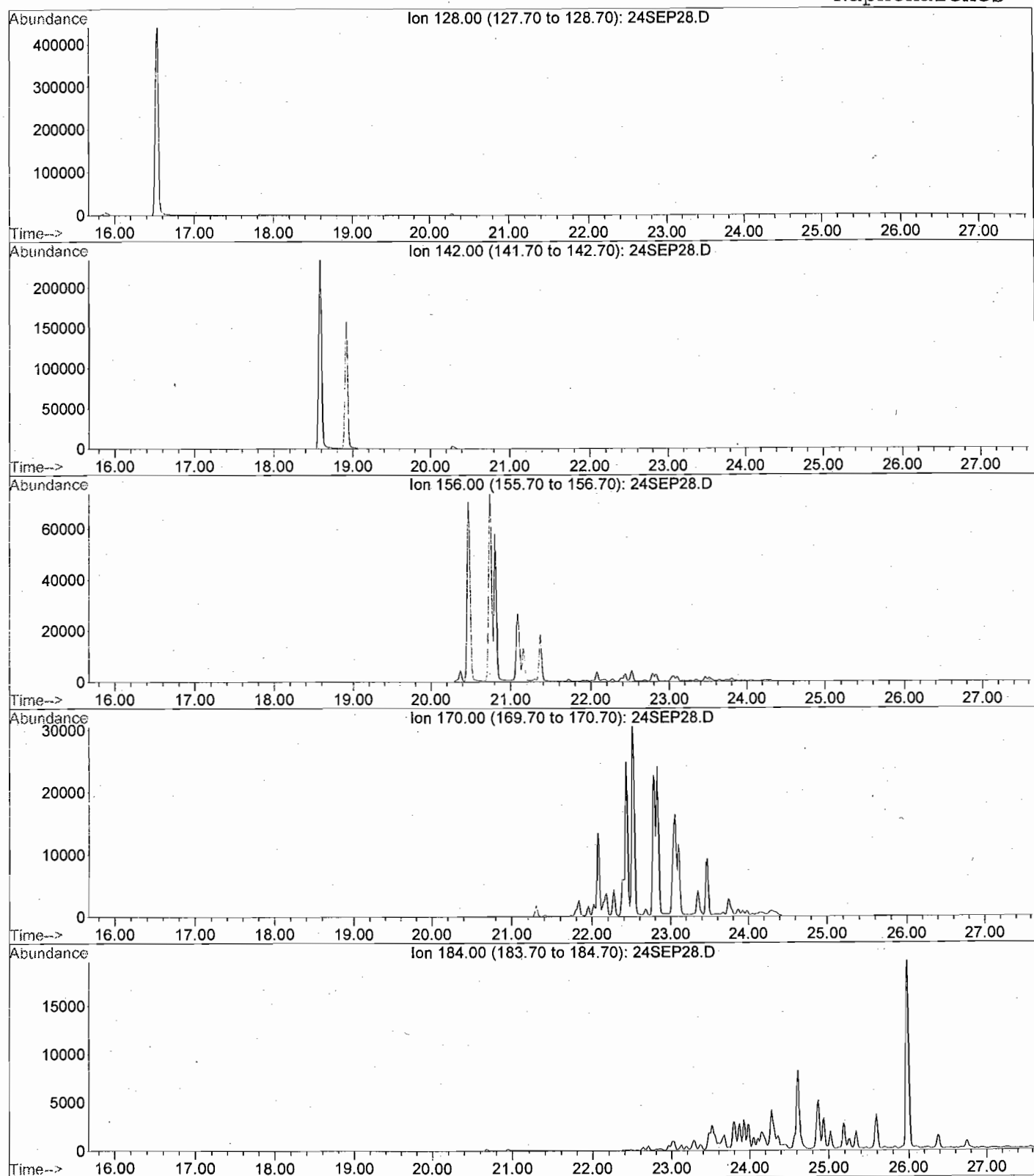
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Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Benzenes



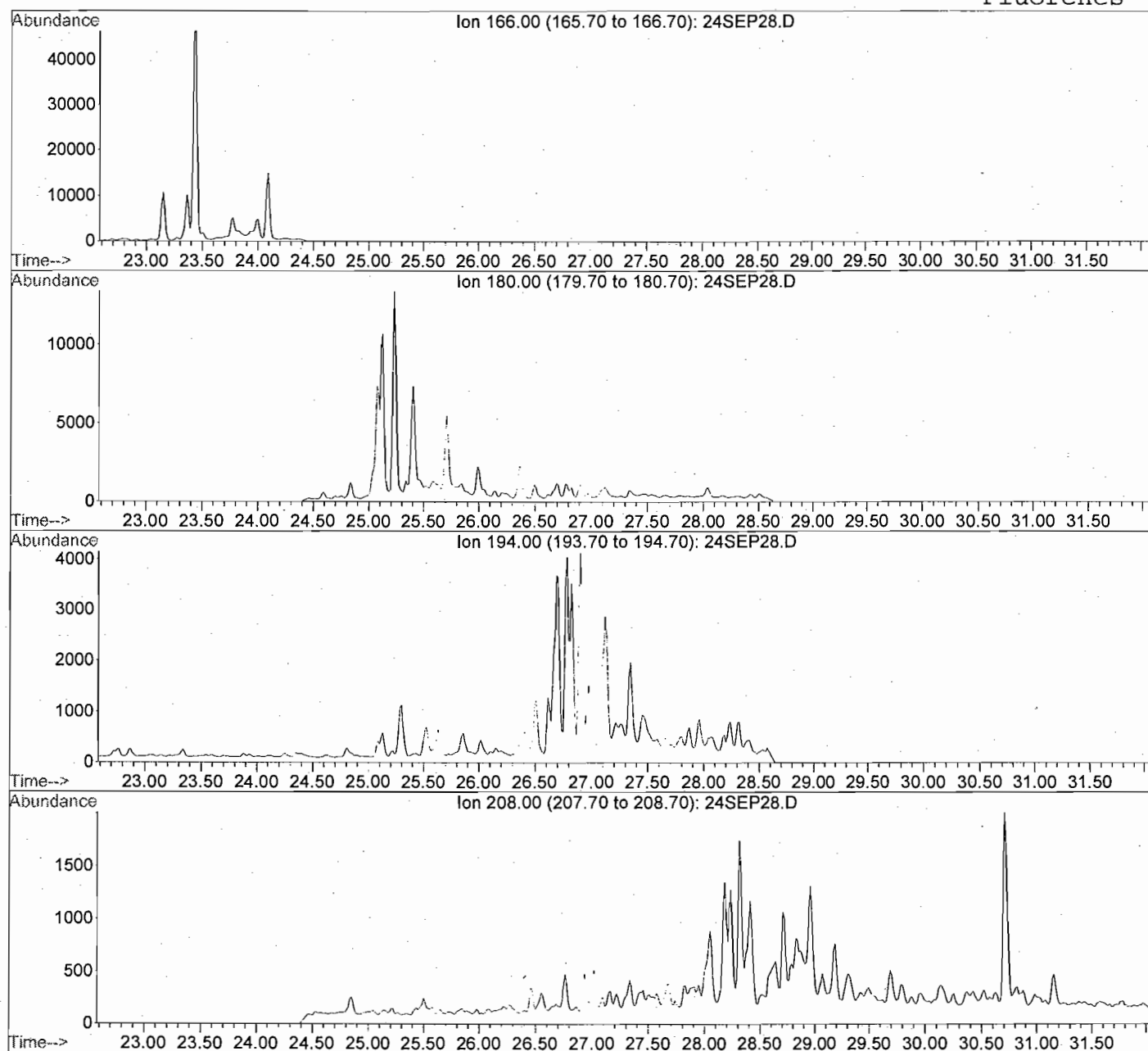
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Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Naphthalenes



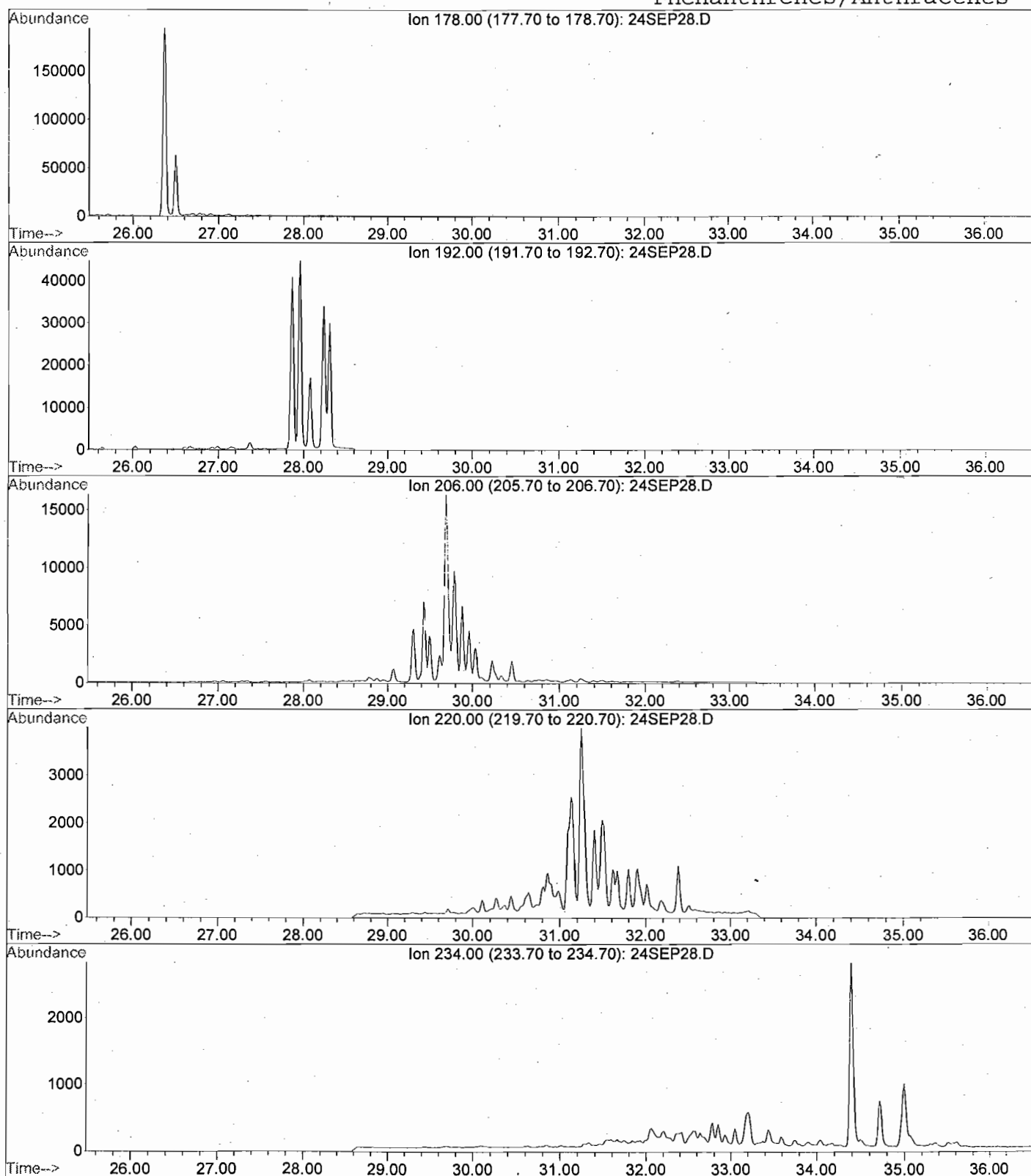
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Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Fluorenes



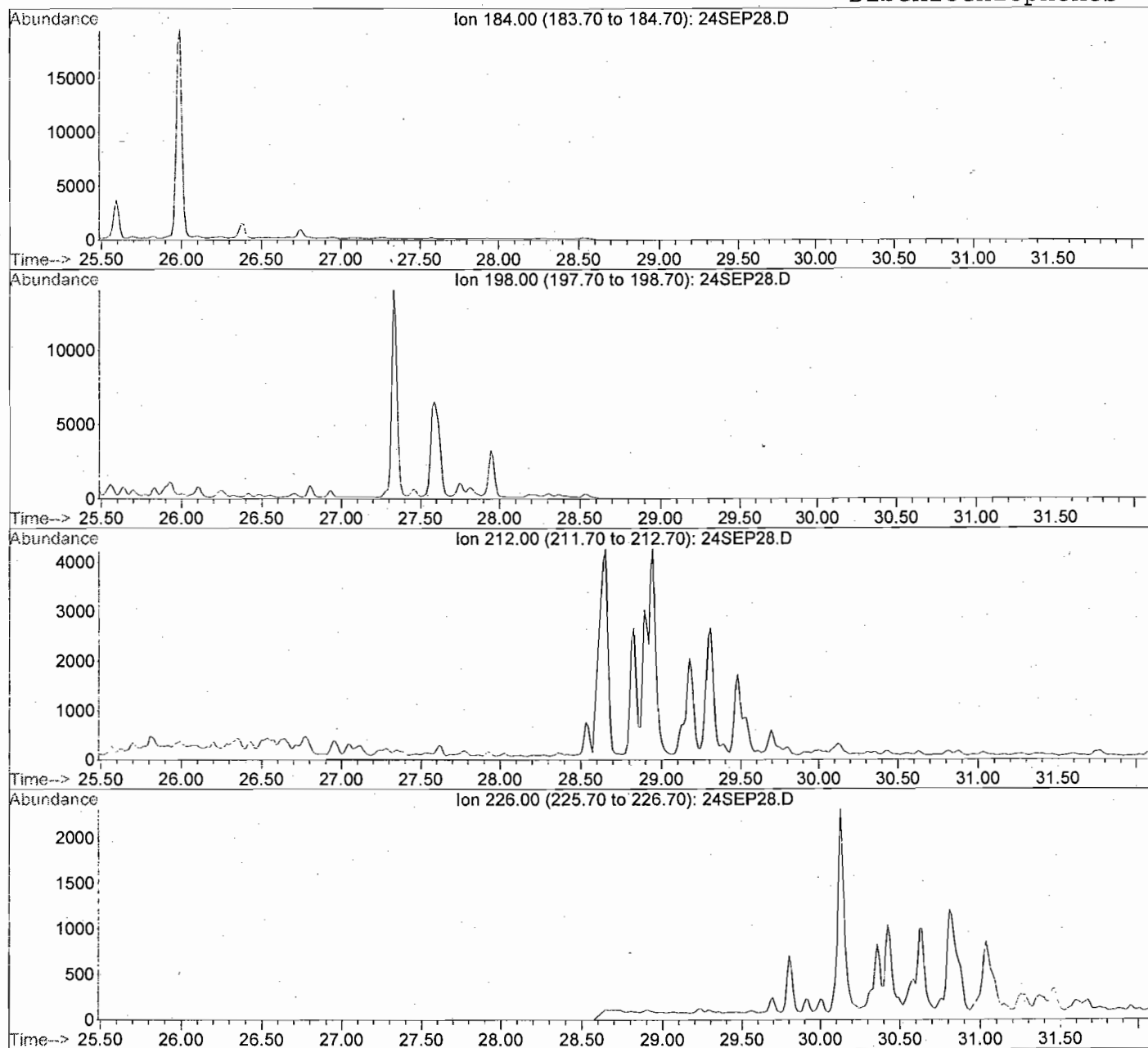
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Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Phenanthrenes/Anthracenes



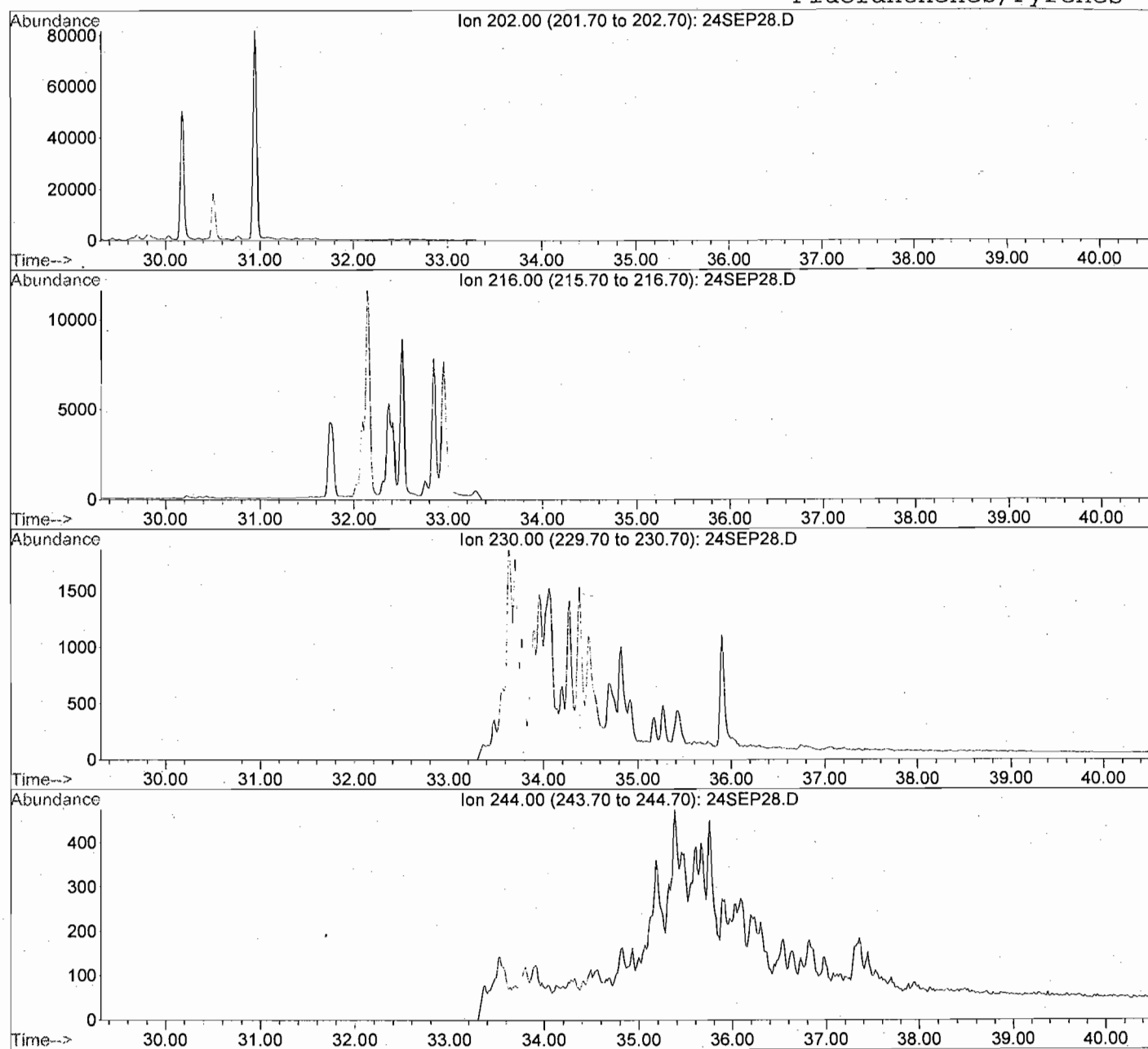
Field ID: 0309377-001A
Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Dibenzothiophenes



Field ID: 0309377-001A
Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Fluoranthenes/Pyrenes



Field ID: 0309377-001A

Lab ID: HT030913-01

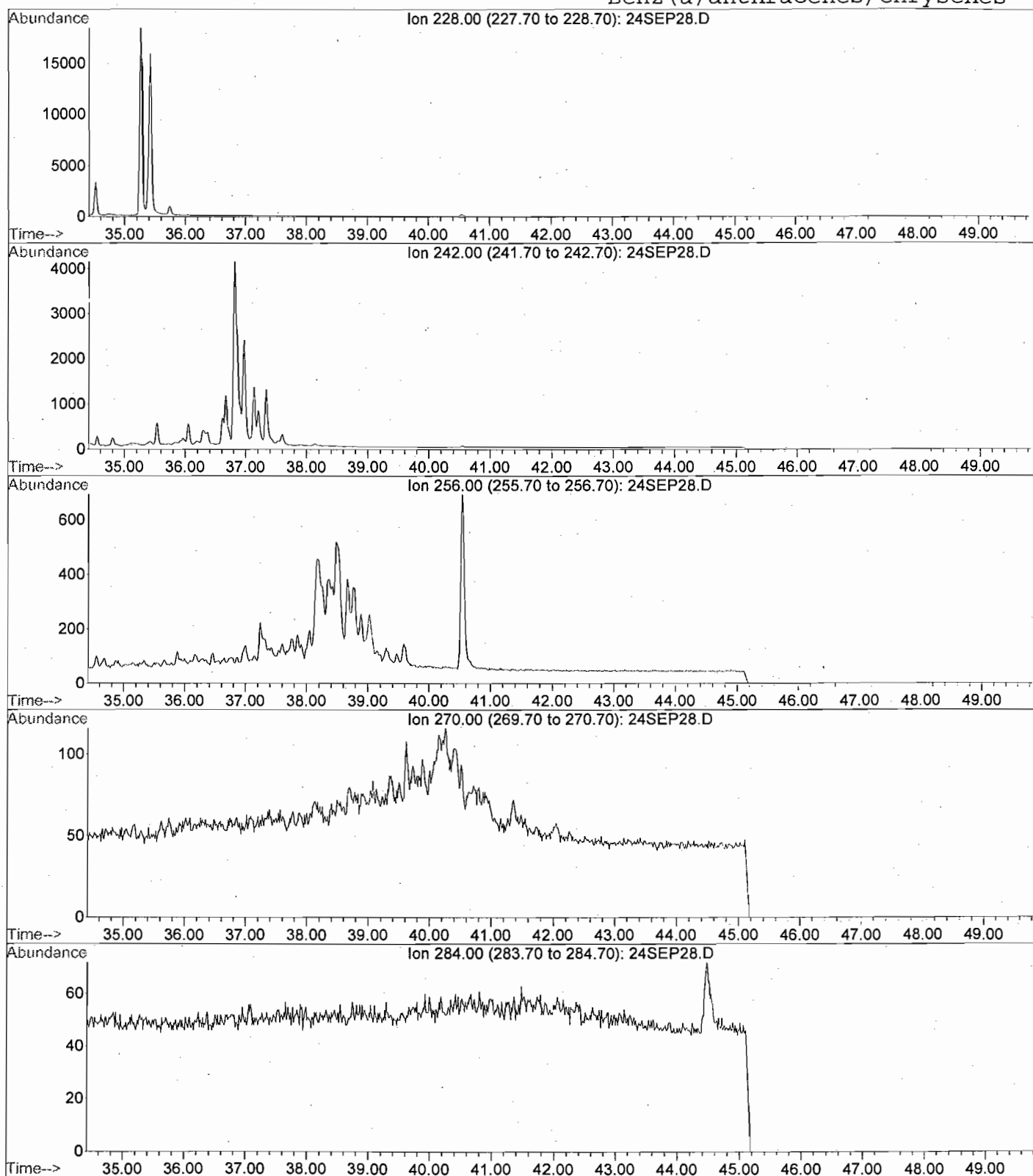
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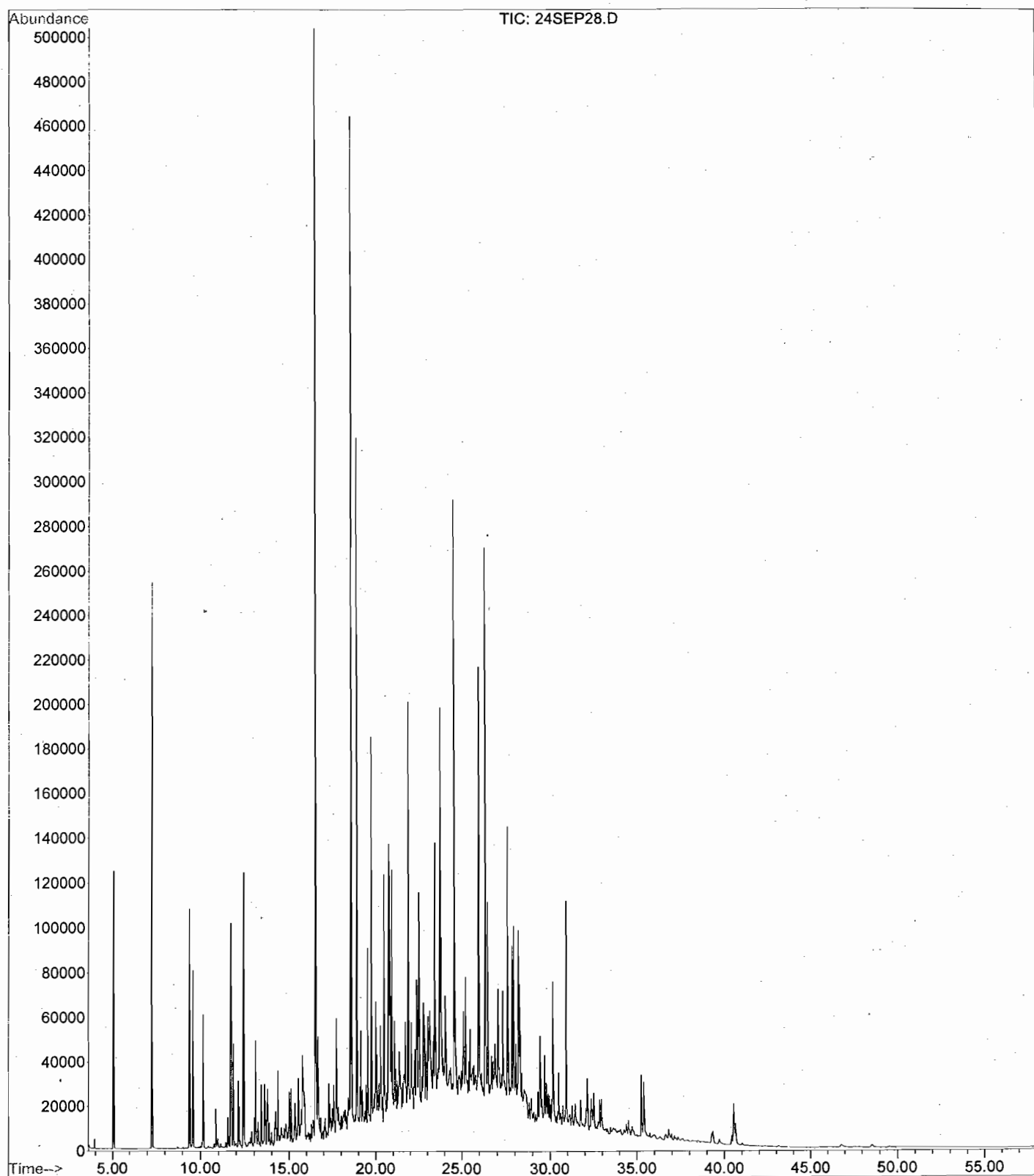
Instrument: GC4-MS_59

Operator: LKD

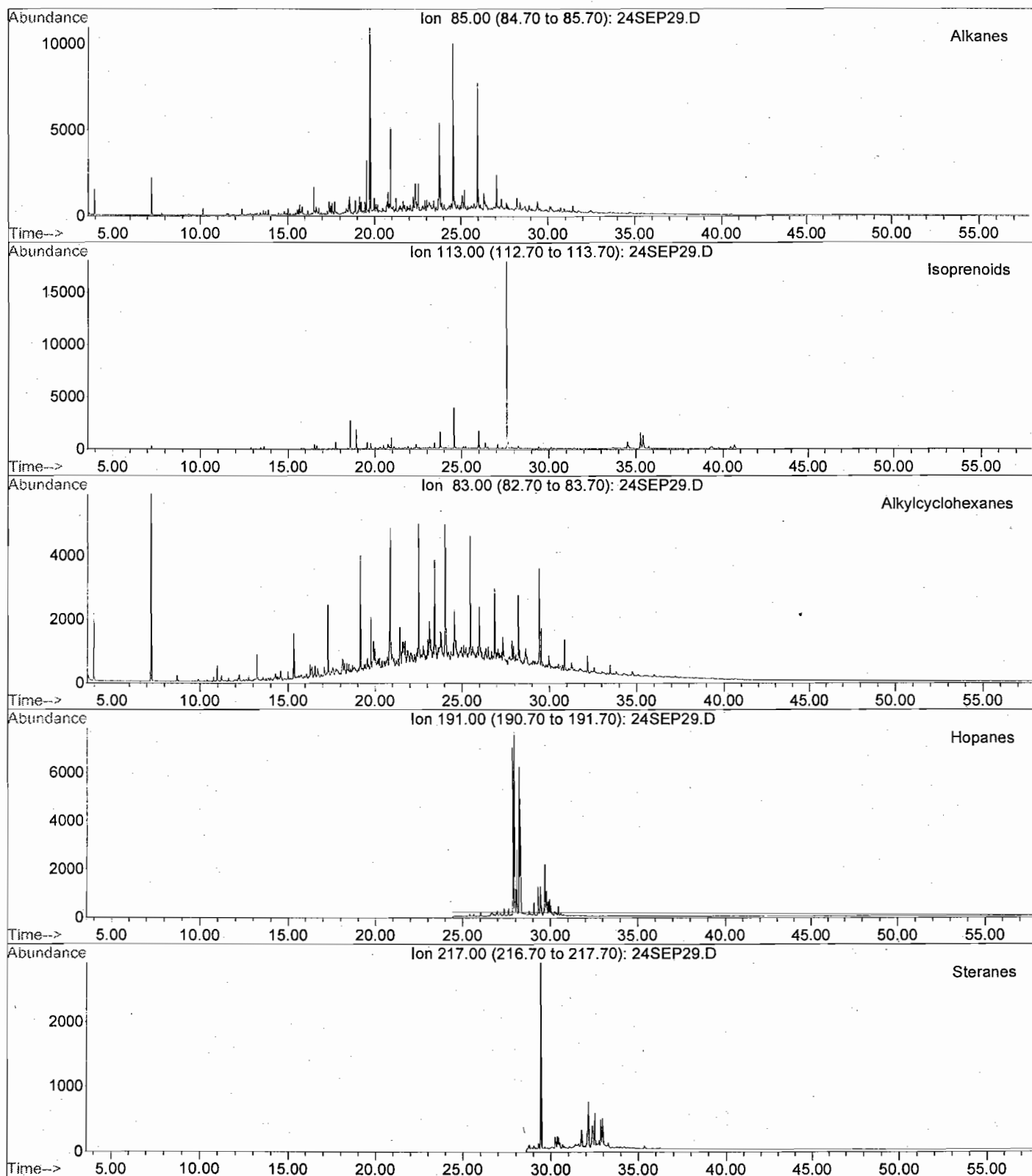
Benz (a) anthracenes/Chrysenes



Field ID: 0309377-001A
Lab ID: HT030913-01
File: I:\4\DATA\030924\24SEP28.D
Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

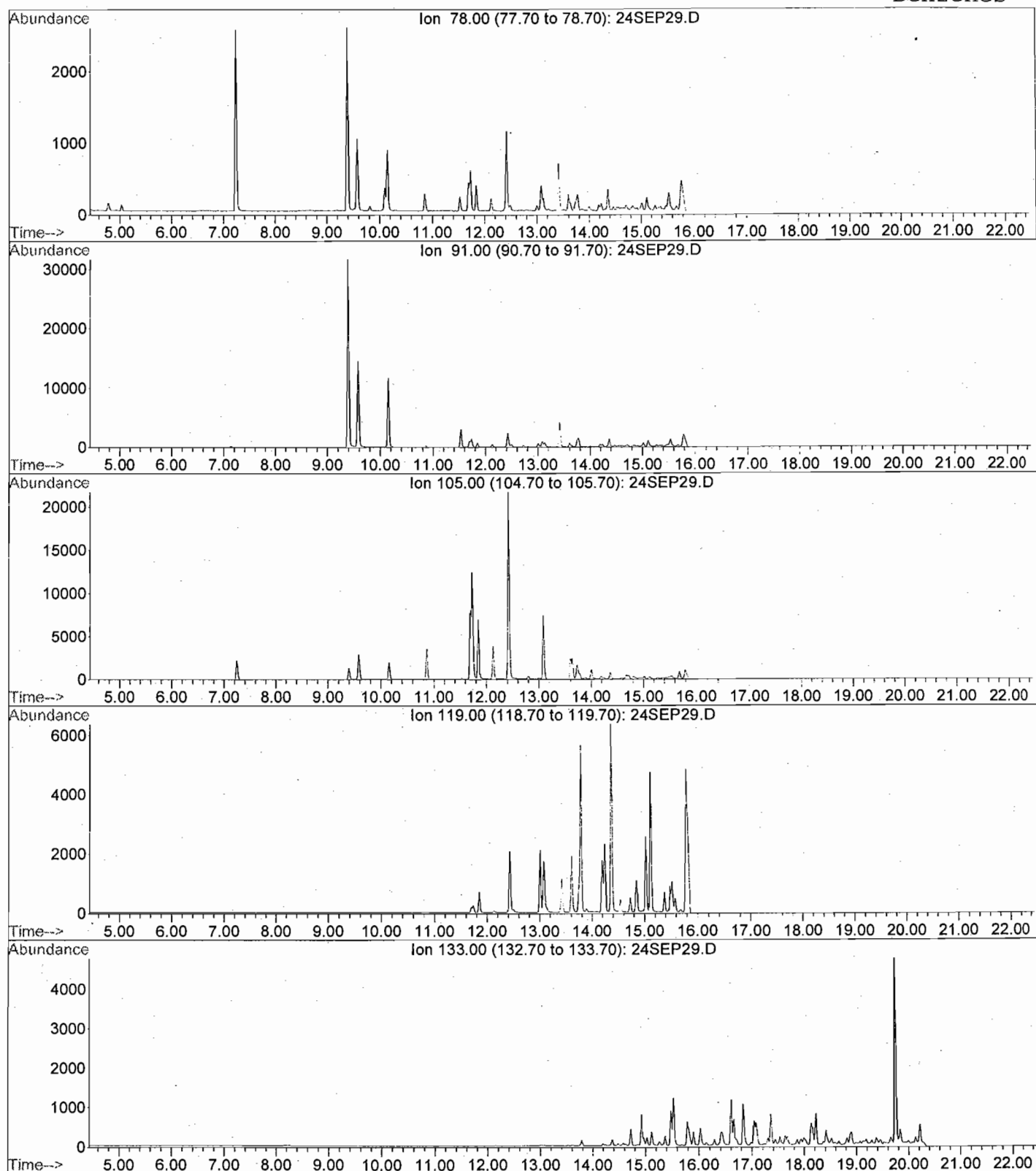


Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD



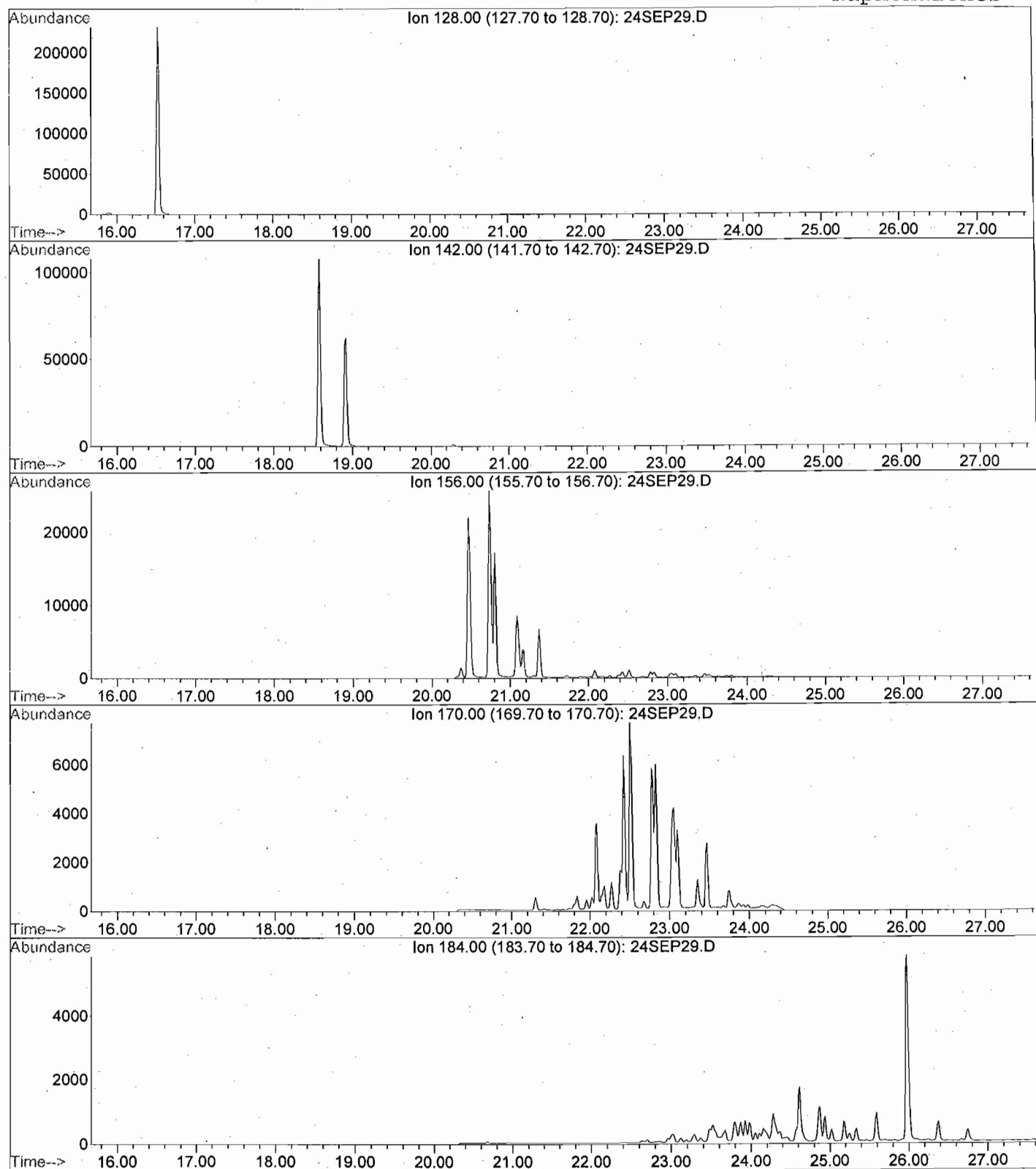
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Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Benzenes



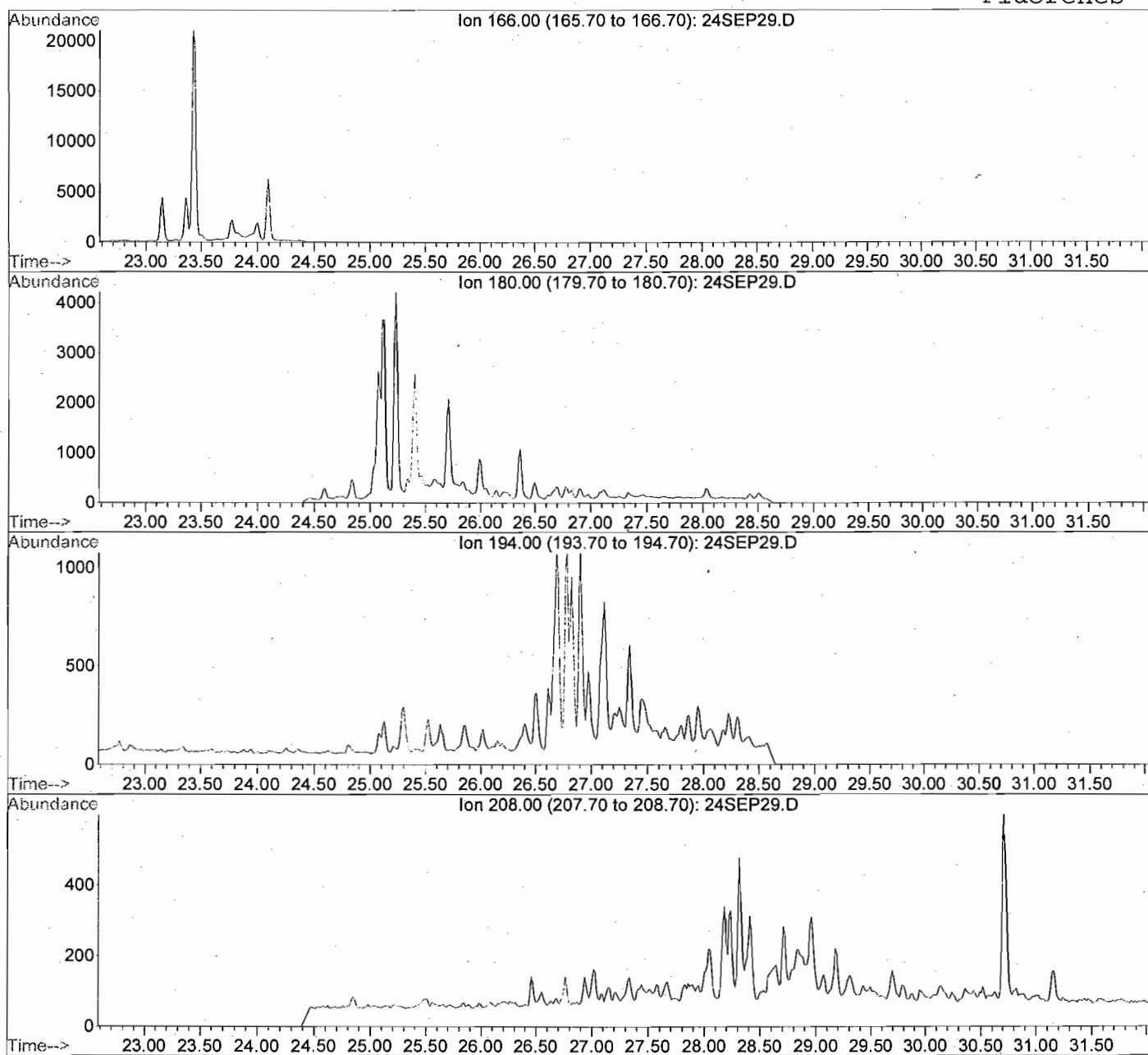
Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Naphthalenes



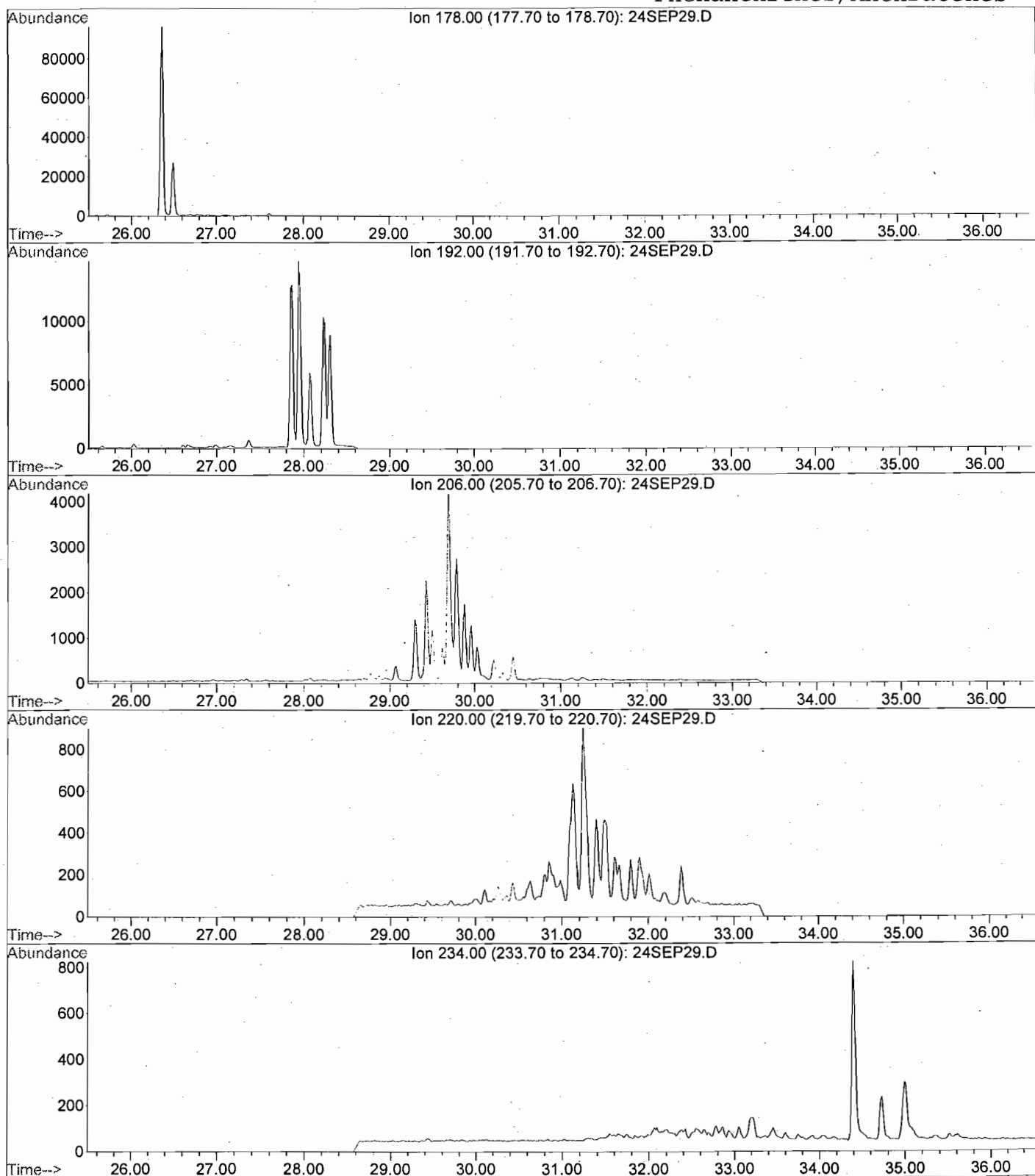
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Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Fluorenes



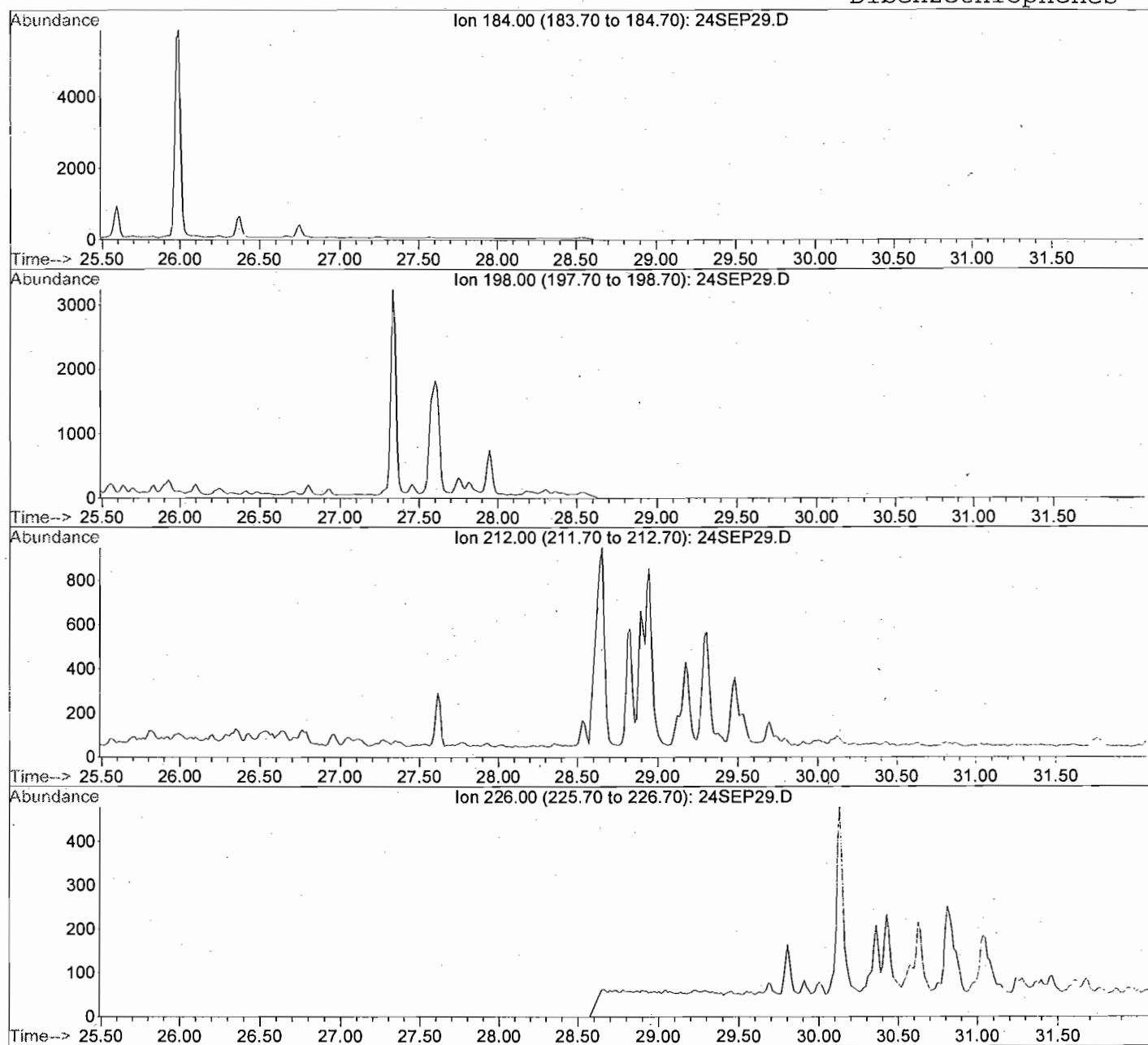
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Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Phenanthrenes/Anthracenes



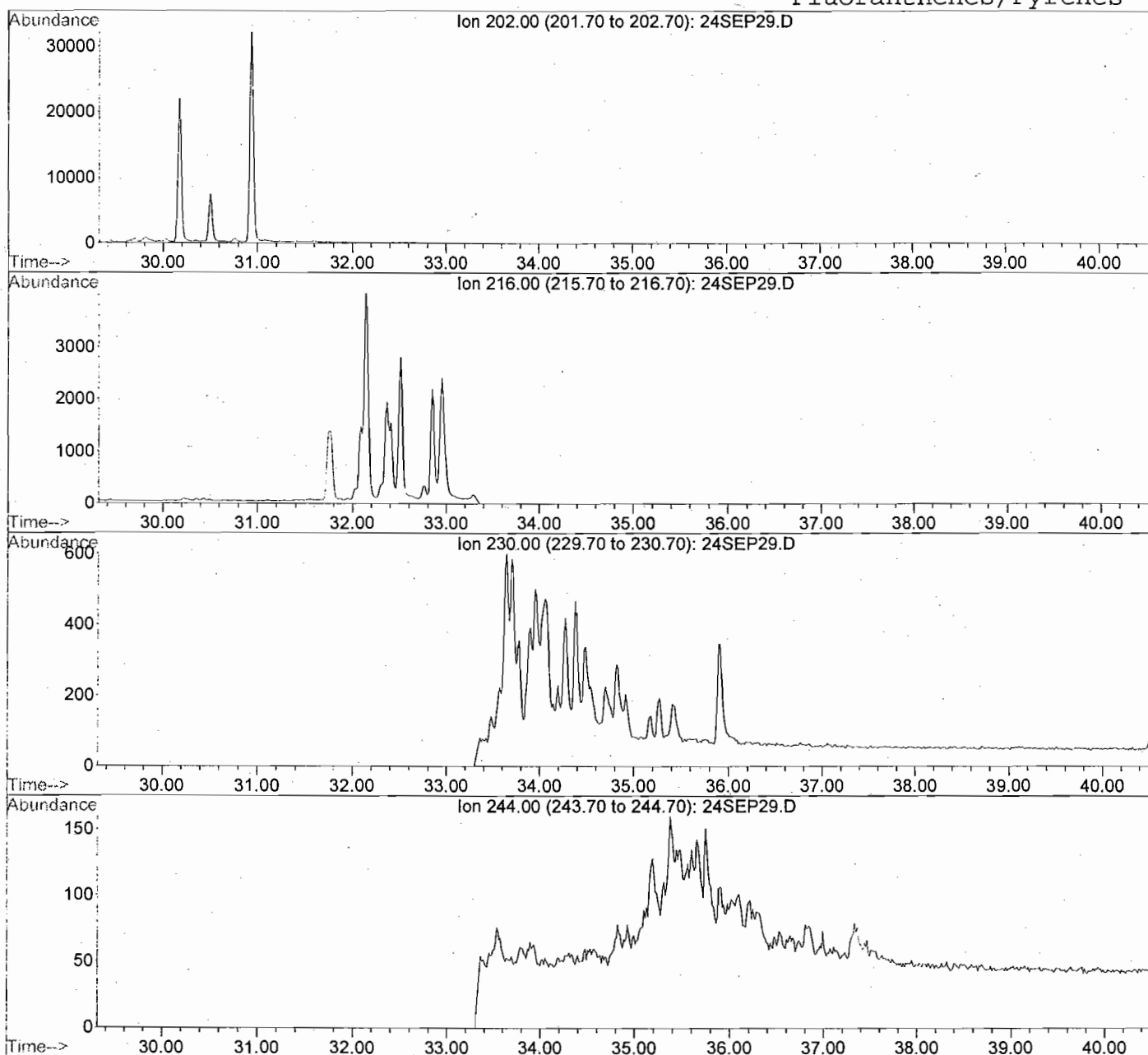
Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Dibenzothiophenes



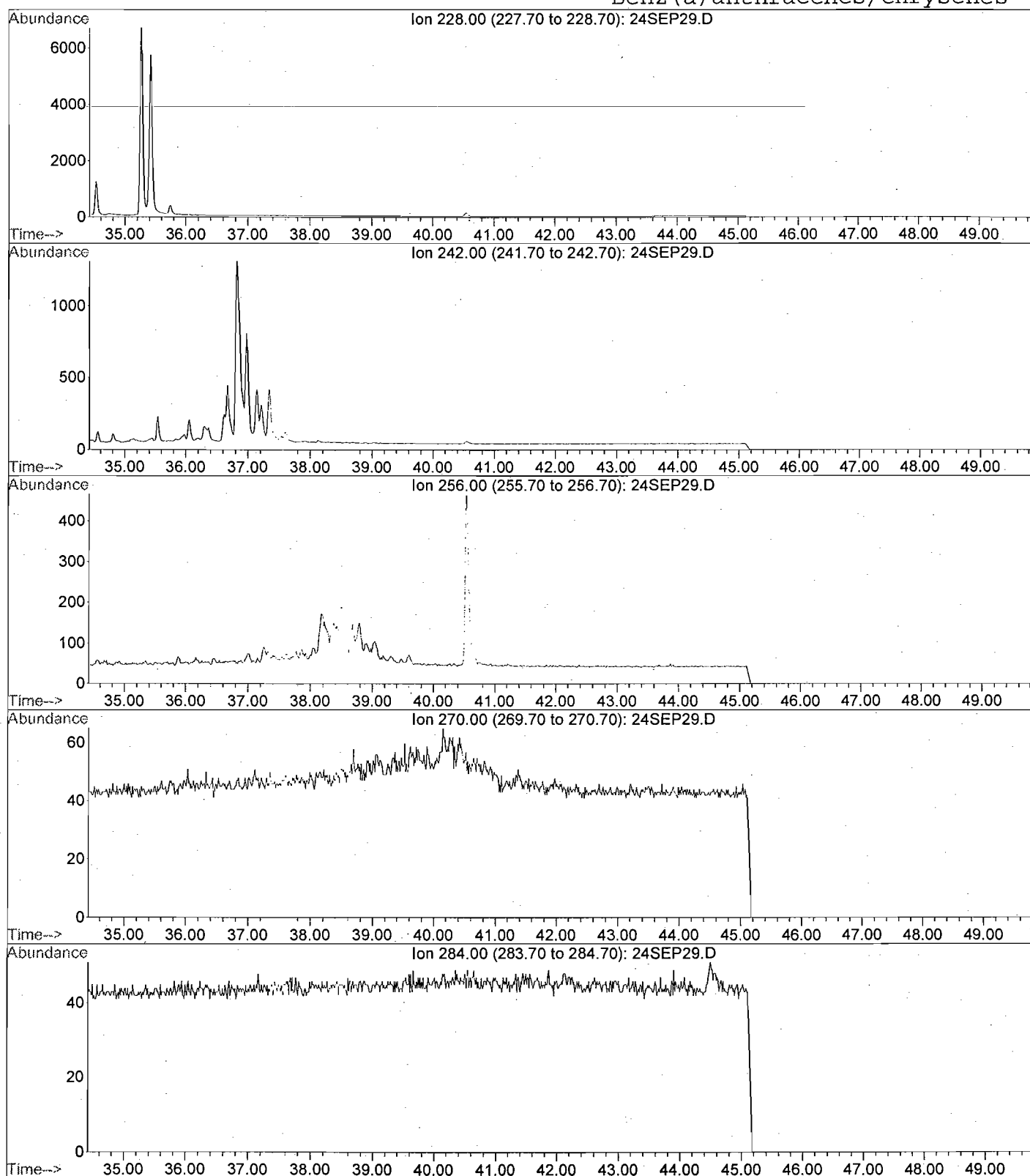
Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Fluoranthenes/Pyrenes

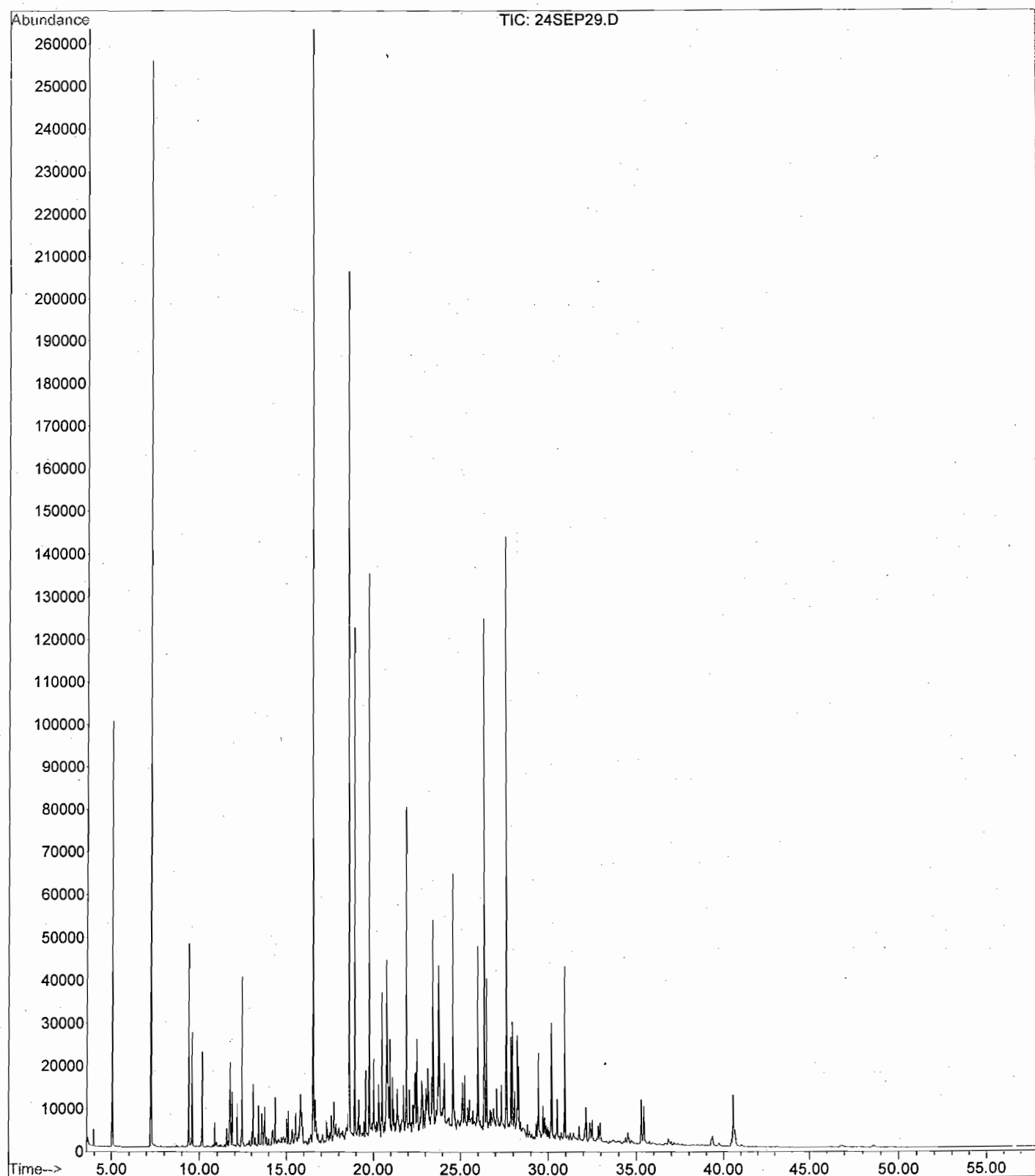


Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD

Benz (a) anthracenes/Chrysenes



Field ID: 0309377-002A
Lab ID: HT030913-02
File: I:\4\DATA\030924\24SEP29.D
Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: LKD



Appendix K
META Environmental Forensic Report
November 25, 2003

Environmental Forensic Report

Key-PSS

SDG: HT030930, HT031006

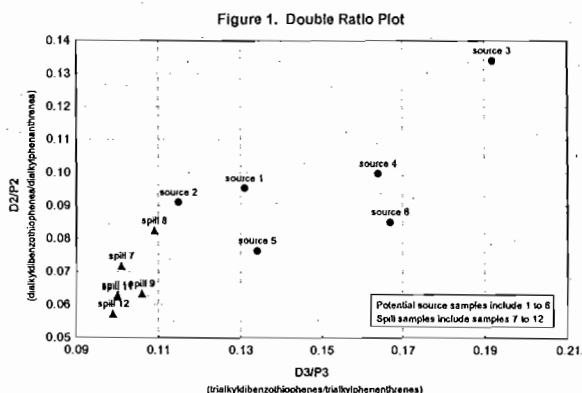


Report To:
H2M Labs
575 Broad Hollow Road
Melville, NY 11747

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

November 25, 2003



Identifying and allocating sources of pollutants in complex environments.

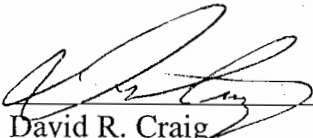
Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

Phone: 617-923-4662
Fax: 617-923-4610
e-Mail: meta@metaenv.com

Certification


This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director and Quality Assurance Officer, as verified by the following signatures.



David R. Craig
Laboratory Director, META Environmental, Inc.

11/25/03

Date



David M. Mauro
Quality Assurance Officer, META Environmental, Inc.

11/25/03

Date

Sample Delivery Group Narrative

Project: Key-PSS

Client: H2M Labs, Inc.
575 Broad Hollow Road
Melville, NY 11747-5076

Report Contact: Jennifer Aracri

Date of Receipt: 9/30/03, 10/06/03

Sample Summary:

The samples received for this project are summarized in the attached sample login forms.

META Project Number: H09002-60

Chain of Custody

Samples were received in good condition. The internal temperatures of the shipment containers were as follows:

Sample received 9/30/2003	1.0°C
Sample received 10/06/2003	12.0°C

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page.

The disposal of samples and extracts will be authorized 1 month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100 mod.) and GC/MS (EPA 8270 mod.).

Results

Sample results were presented in summary forms (CLP Form 1 equivalent) which follow this narrative.

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." No value was reported above the calibration range. Undetected analytes were flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The sample received on 9/30 was extracted 13 days after collection. The samples received on 10/6 were prepared five days after collection. All samples and extracts were stored at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to extraction and analysis. All extracts were analyzed within 40 days of sample preparation.

Blanks

No target analytes were found above the detection limits in the blanks.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards with the exception of the soil blank spike.

Interpretation

Sample 0309817-001A

This sample contained a petrogenic substance (see definitions). The petroleum eluted as an unresolved complex mixture (UCM or "hump") which eluted from approximately decane (C10 - 9 minutes) to eicosane (C20 - 21 minutes). This UCM is substantially narrower in carbon range than most petroleum fuel and is indicative of wash oil, a petroleum product used in the MGP process to remove heavier compounds from the gas stream.

The sample also contains relatively low concentrations of heavy PAHs (3+rings) in a pyrogenic pattern.

Sample 0310103-001A

This sample contained petrogenic material similar to those found in sample 0309817-001A. The sample also contained a pattern of pyrogenic PAHs indicative of a mildly weathered low temperature tar.

Sample 0310103-002A

This sample contained pyrogenic PAHs indicative of relatively unweathered low temperature tar.

Discussion

All three samples contained pyrogenic PAHs. The relative ratios of the PAHs, especially the ratios of fluoranthene to pyrene and dibenzofuran to fluorene, in the samples indicate that these samples contain tar from a relatively low temperature process. The diagnostic ratios (Table 1) are similar to some MGP tars and indicate that the PAHs in these samples share a common source separate from the two previously reported samples.

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

- 1 "Chemical Source Attribution at Former MGP Sites," EPRI Report 1000728, December 2000.

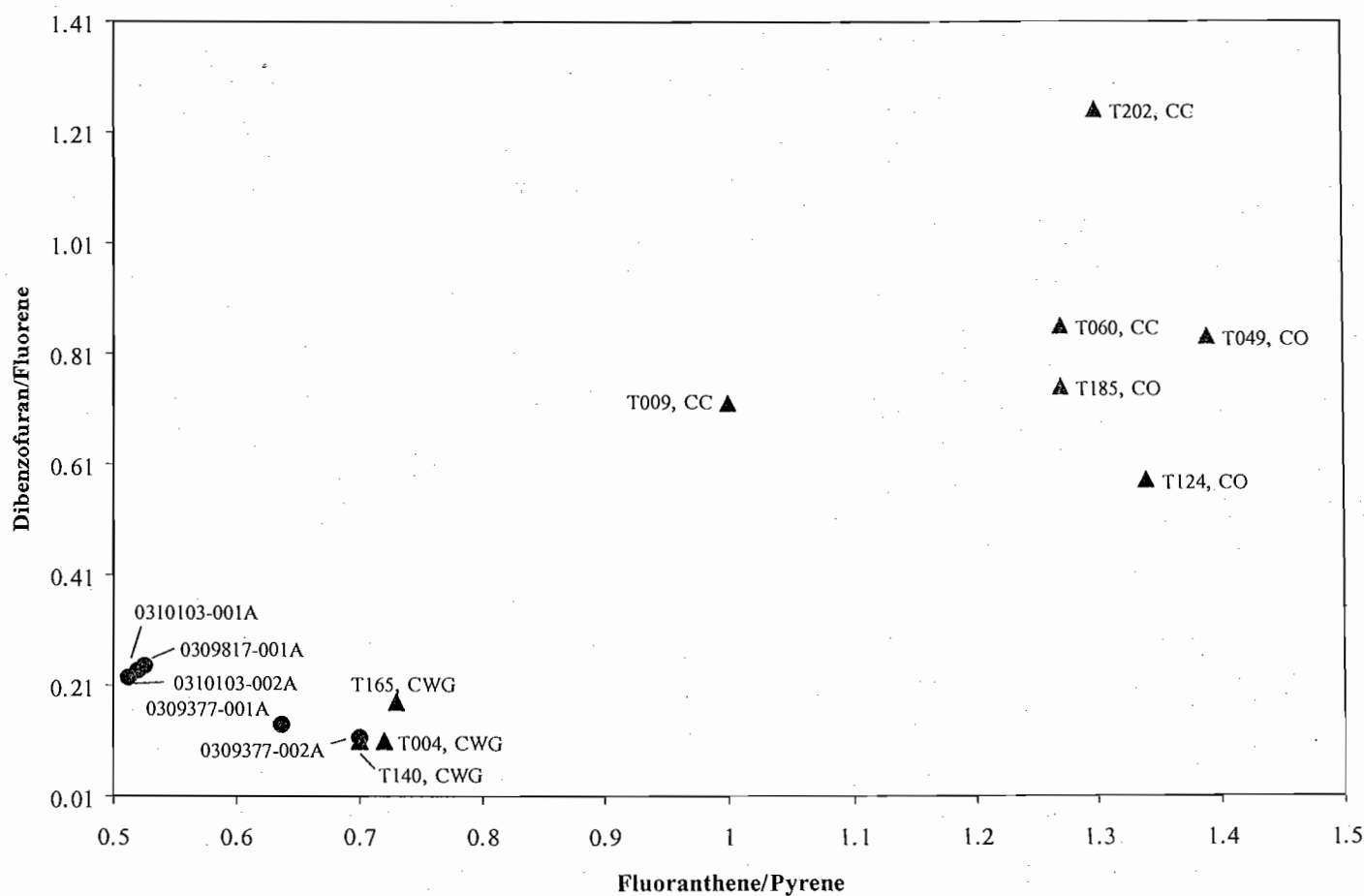
Table 1
Source and Weathering Ratios

Sample	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA
0309377-001A	0.64	0.14	0.02	0.05	1.64	0.71	0.38
0309377-002A	0.70	0.12	0.02	0.05	1.75	0.55	0.31
0309817-001A	0.53	0.25	1.53	2.29	3.28	0.76	0.32
0310103-001A	0.52	0.24	2.55	3.20	3.70	1.10	0.28
0310103-002A	0.51	0.22	1.97	2.50	2.30	0.65	0.23

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	septadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes

Figure 1
Selected Source Ratios



TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CWG Carburetted Water Gas Tar
 ● Site Sample
 ● Site Sample from Previous Report

Appendix A

Chains of Custody

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client/Project	Container/Storage
HT030930-01a, b	0309817-001A	Soil	2508/4007 4008	9/25/2003	9/30/2003	H09002-60	1 x4oz. + 2oz. Jar

Ben Hyatt 9/30/03

H2M LABS, INC.

575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
49 Clarendon Street

TEL: (617) 923-4662
FAX:

H2M Client : KEY-PSS

Watertown, Massachusetts 02472

Acct #:

S.D.G. PSS011

29-Sep-03

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests
0309817-001A	Soil	9/25/2003 1:17:00 PM	1-202/1-4-22 2	

HT030930-01 9.b

Comments:

Please analyze for GCFID Fingerprint WITH GC/MS Fingerprint Categorization. Please reference PO L-8927 at a cost of \$460.00 per sample. Full data package required (CAT B).

Relinquished by: 

Date/Time

9/24/03 12:55

Received by:

Relinquished by:

Received by:

Date/Time

9/30/03 11:00 AM

Recd at 10c

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client Project	Container Storage	Comments/Log
HT03106-01 a,b	0310103-001A	Soil	4008	10/3/2003	10/6/2003	H09002-60	4 oz. jar/ 2 oz. jar	
HT03106-02 a,b	0310103-002A	Soil	4008	10/3/2003	10/6/2003	H09002-60	4 oz. jar/ 2 oz. jar	

Bir Syzi 10/6/03

H2M LABS, INC.
575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
49 Clarendon Street

TEL: (617) 923-4662
FAX:

H2M Client : KEY-PSS

Watertown, Massachusetts 02472

Acct #:

Six 15502

03-Oct-03

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests
0310103-001A	Soil	10/2/2003 10:46:00 AM	15502	HTC3106-01a,b
0310103-002A	Soil	10/2/2003 11:30:00 AM	15502	HTC3106-01a,b

Comments:

ATTENTION: DAVID CRAIG: Please analyze for GC/FID fingerprinting with GC/MS fingerprint categorization. Please reference PO# L-8927 at a cost of \$460.00 per sample. Full data package required (NYSDEC ASP Category B).

Relinquished by:

Date/Time

Received by:

Date/Time

Relinquished by:

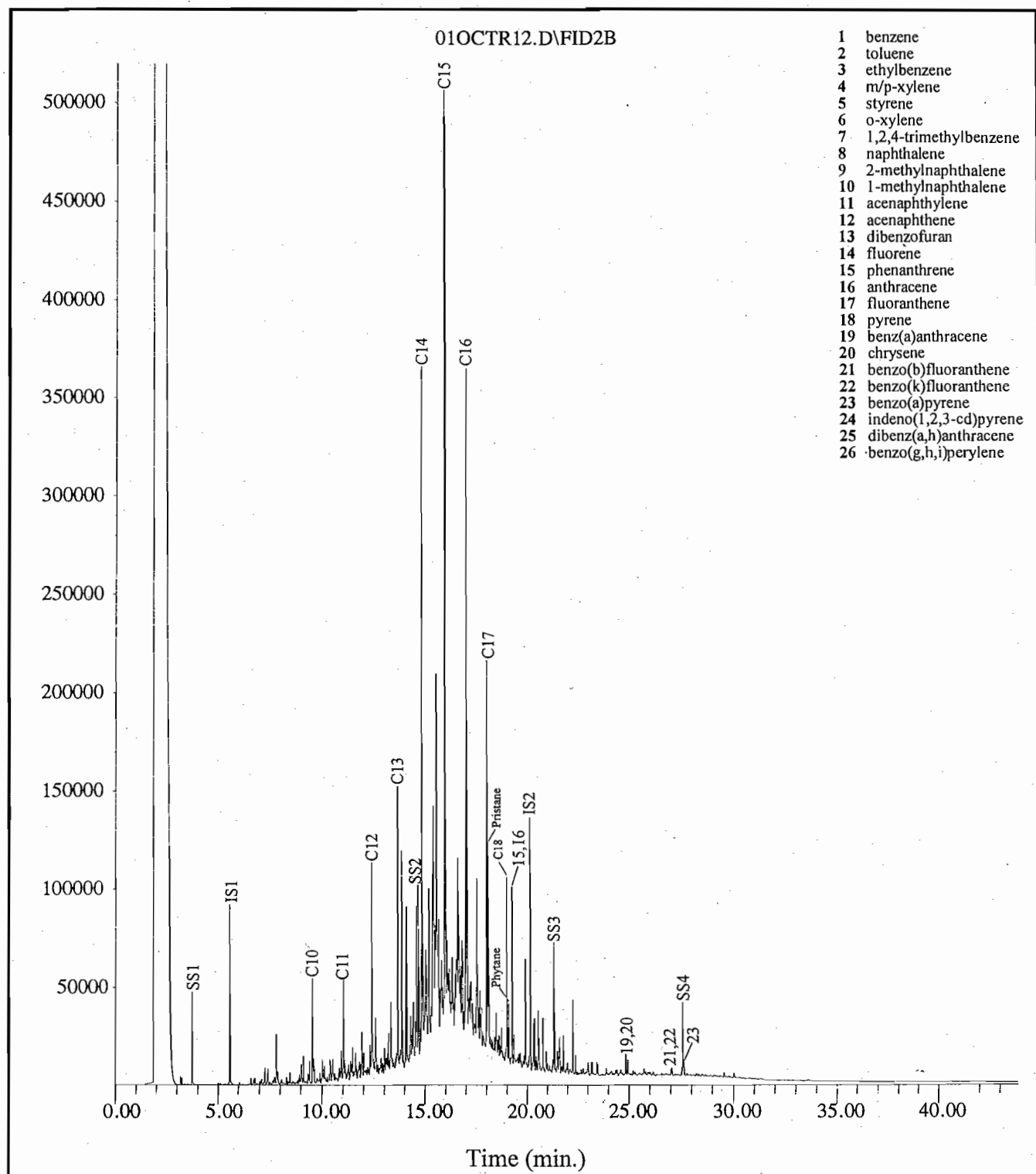
Received by:

Rec'd @ 120C

Appendix B

GC/FID Fingerprints

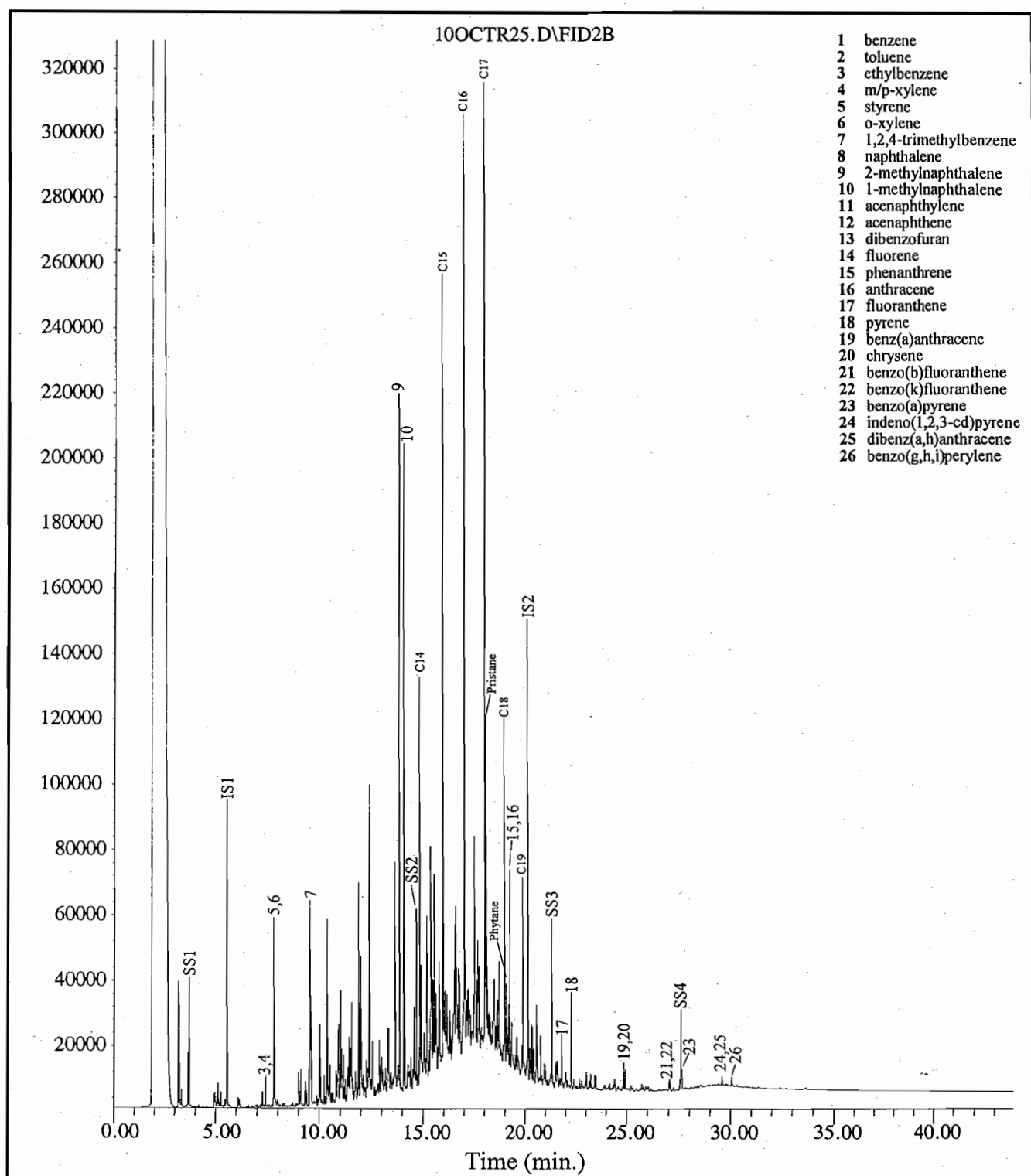
GC/FID Fingerprint



IS1 - 2,4-difluorotoluene
 IS2 - o-terphenyl
 SS1 - fluorobenzene
 SS2 - 2-fluorobiphenyl
 SS3 - 5 α -androstane
 SS4 - benzo(a)pyrene-d12

Field ID: 0309817-001A
 Laboratory ID: HT030930-01
 Method: METD7015

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

IS2 - o-terphenyl

SSI - fluorobenzene

SS2 - 2-fluorobiphenyl

SS3 - 5 α -androstane

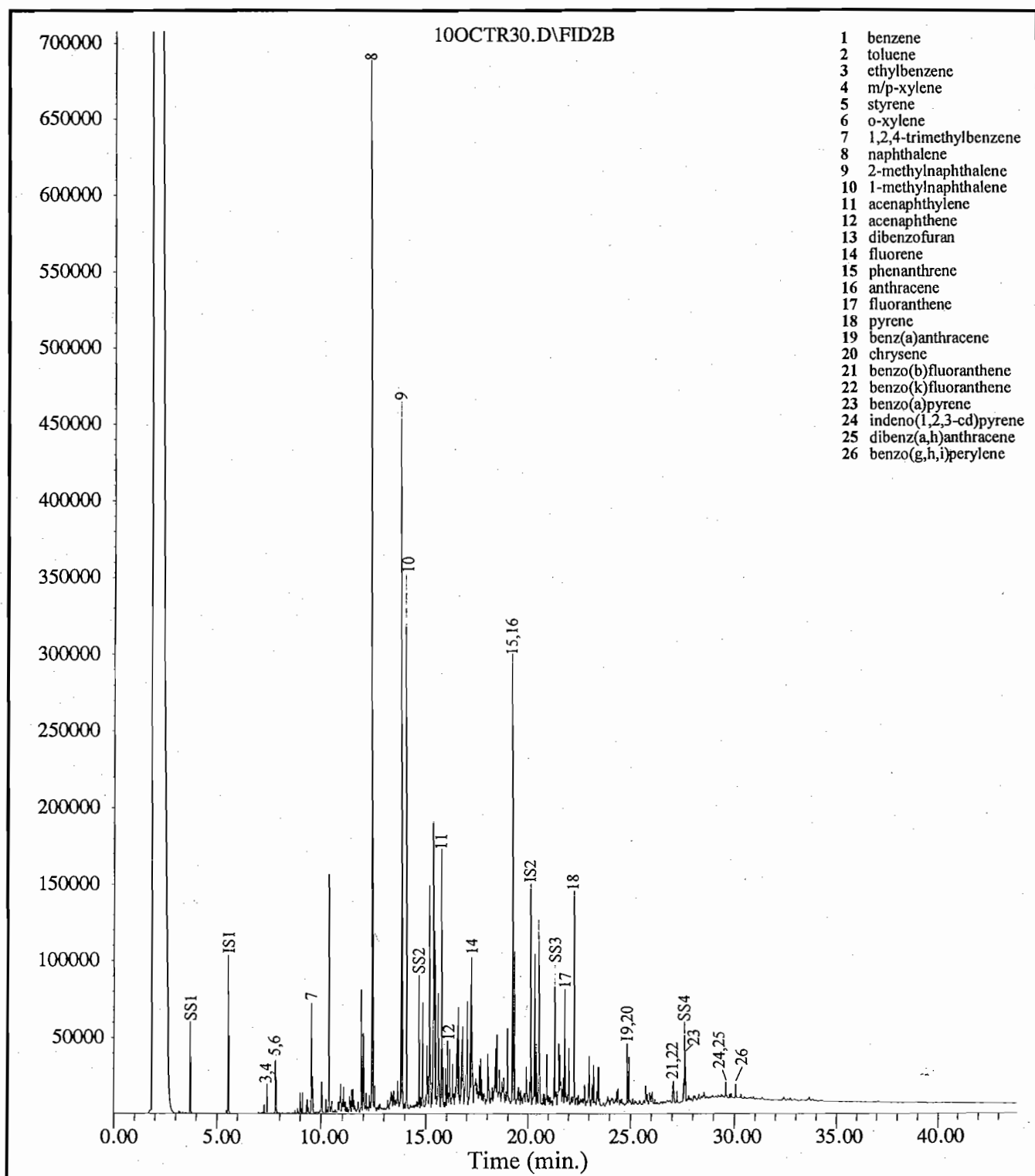
SS4 - benzo(a)pyrene-d12

Field ID: 0310103-001A

Laboratory ID: HT031006-01

Method: METD7015

GC/FID Fingerprint



IS1 – 2,4-difluorotoluene

IS2 – o-terphenyl

SS1 – fluorobenzene

SS2 – 2-fluorobiphenyl

SS3 – 5 α -androsterone

SS4 – benzo(a)pyrene-d12

Field ID: 0310103-002A

Laboratory ID: HT031006-02

Method: METD7015

Appendix C

Chemical Concentrations

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309817-001A

Preparation Method: MET2508

Cleanup Method(s): N/A

 Client: H2M
 Project: KEY-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

Matrix: Soil

Preservation: None

Decanted: No

 Lab ID: HT030930-01
 File ID: 28OCT15.D

Sample Size: 1.735 g

%Solid: 94%

Extract Volume: 1.8 mL

Prep DF: 1

Analysis DF: 1

Injection Volume: 0.001 mL

 Date Sampled: 9/25/2003
 Date Received: 9/30/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 29 Oct 2003 9:34 am
 Instrument: GC4-MS_59
 Operator: MP

Batch QC: JW030930-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene		U	0.11	0.05	
Toluene	0.29		0.11	0.05	
Ethylbenzene	3.48		0.11	0.05	
m/p-Xylenes	4.20		0.11	0.05	
Styrene	5.74		0.11	0.05	
o-Xylene	2.68		0.11	0.05	
1,2,4-Trimethylbenzene	7.87		0.11	0.05	
Naphthalene	8.41		0.11	0.05	
2-Methylnaphthalene	52.4		0.11	0.05	
1-Methylnaphthalene	35.9		0.11	0.05	
Acenaphthylene	6.10		0.11	0.05	
Acenaphthene	3.01		0.11	0.05	
Dibenzofuran	3.09		0.11	0.05	
Fluorene	12.6		0.11	0.05	
Phenanthrene	42.7		0.11	0.05	
Anthracene	7.07		0.11	0.05	
Fluoranthene	9.25		0.11	0.05	
Pyrene	17.6		0.11	0.05	
Benz[a]anthracene	4.58		0.11	0.05	
Chrysene	4.36		0.11	0.05	
Benzo[b]fluoranthene	1.71		0.11	0.05	
Benzo[k]fluoranthene	1.67		0.11	0.05	
Benzo(e)pyrene	2.30		0.11	0.05	
Benzo[a]pyrene	2.64		0.11	0.05	
Perylene	0.08	J	0.11	0.05	
Indeno[1,2,3-cd]pyrene	1.01		0.11	0.05	
Dibenz[a,h]anthracene	0.36		0.11	0.05	
Benzo[g,h,i]perylene	1.60		0.11	0.05	

ALKYLATED PAHs:

C0-Benzene		U	0.11	0.05	
C1-Benzene	0.31		0.11	0.05	
C2-Benzene	11.2		0.11	0.05	
C3-Benzene	39.5		0.11	0.05	
C4-Benzene	33.3		0.11	0.05	
C5-Benzene	8.90		0.11	0.05	
C0-Naphthalene	8.41		0.11	0.05	
C1-Naphthalene	59.1		0.11	0.05	
C2-Naphthalene	115		0.11	0.05	
C3-Naphthalene	58.2		0.11	0.05	
C4-Naphthalene	14.7		0.11	0.05	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0309817-001A

Client: H2M
 Project: KEY-PSS
 Lab ID: HT030930-01
 File ID: 28OCT15.D
 Date Sampled: 9/25/2003
 Date Received: 9/30/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 29 Oct 2003 9:34 am
 Instrument: GC4-MS_59
 Operator: MP

Preparation Method: MET2508
 Cleanup Method(s): N/A
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 1.735 g
 %Solid: 94%
 Extract Volume: 1.8 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: JW030930-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	12.6		0.11	0.05	
C1-Fluorene	10.3		0.11	0.05	
C2-Fluorene	3.98		0.11	0.05	
C3-Fluorene	1.42		0.11	0.05	
C0-Phenanthrene/Anthracene	50.7		0.11	0.05	
C1-Phenanthrene/Anthracene	26.8		0.11	0.05	
C2-Phenanthrene/Anthracene	7.19		0.11	0.05	
C3-Phenanthrene/Anthracene	1.12		0.11	0.05	
C4-Phenanthrene/Anthracene	0.24		0.11	0.05	
C0-Dibenzothiophene	5.02		0.11	0.05	
C1-Dibenzothiophene	4.73		0.11	0.05	
C2-Dibenzothiophene	2.30		0.11	0.05	
C3-Dibenzothiophene	0.85		0.11	0.05	
C0-Fluoranthene/Pyrene	29.7		0.11	0.05	
C1-Fluoranthene/Pyrene	10.0		0.11	0.05	
C2-Fluoranthene/Pyrene	2.78		0.11	0.05	
C3-Fluoranthene/Pyrene	0.80		0.11	0.05	
C0-Benz(a)anthracene/Chrysene	9.22		0.11	0.05	
C1-Benz(a)anthracene/Chrysene	3.43		0.11	0.05	
C2-Benz(a)anthracene/Chrysene	1.08		0.11	0.05	
C3-Benz(a)anthracene/Chrysene	0.22		0.11	0.05	
C4-Benz(a)anthracene/Chrysene	0.17		0.11	0.05	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	94%		50%	150%	
2-Fluorobiphenyl	112%		50%	120%	
5a-Androstane	103%		50%	120%	
Benzo(a)pyrene-d12	136%		50%	120%	
FRACTIONATION SURROGATE COMPOUNDS:					
			50%	150%	
2,5-Dibromotoluene	0%		50%	150%	
2-Bromonaphthalene	2%		50%	150%	
1-Chlorooctadecane	94%		50%	150%	

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: **Soil Blank**

Client: N/A
Project: N/A

Lab ID: JW030930-SB
File ID: 27OCT16.D

Date Sampled: N/A
Date Received: N/A
Date Prepared: 9/30/2003
Date Cleanup: N/A
Date Analyzed: 28 Oct 2003 2:42 am
Instrument: GC4-MS_59
Operator: MP

Preparation Method: MET2508

Cleanup Method(s): N/A

Analysis Method: GC/MS (EPA 8270 Mod.)
Matrix: Soil
Preservation: None
Decanted: No

Sample Size: 2 g
%Solid: 100%
Extract Volume: 1.8 mL
Prep DF: 1
Analysis DF: 1
Injection Volume: 0.001 mL

Batch QC: JW030930-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene	U	0.09	0.05
Toluene	U	0.09	0.05
Ethylbenzene	U	0.09	0.05
m/p-Xylenes	U	0.09	0.05
Styrene	U	0.09	0.05
o-Xylene	U	0.09	0.05
1,2,4-Trimethylbenzene	U	0.09	0.05
Naphthalene	U	0.09	0.05
2-Methylnaphthalene	U	0.09	0.05
1-Methylnaphthalene	U	0.09	0.05
Acenaphthylene	U	0.09	0.05
Acenaphthene	U	0.09	0.05
Dibenzofuran	U	0.09	0.05
Fluorene	U	0.09	0.05
Phenanthrene	U	0.09	0.05
Anthracene	U	0.09	0.05
Fluoranthene	U	0.09	0.05
Pyrene	U	0.09	0.05
Benz[a]anthracene	U	0.09	0.05
Chrysene	U	0.09	0.05
Benzo[b]fluoranthene	U	0.09	0.05
Benzo[k]fluoranthene	U	0.09	0.05
Benzo(e)pyrene	U	0.09	0.05
Benzo[a]pyrene	U	0.09	0.05
Perylene	U	0.09	0.05
Indeno[1,2,3-cd]pyrene	U	0.09	0.05
Dibenz[a,h]anthracene	U	0.09	0.05
Benzo[g,h,i]perylene	U	0.09	0.05

ALKYLATED PAHs:

C0-Benzene	U	0.09	0.05
C1-Benzene	U	0.09	0.05
C2-Benzene	U	0.09	0.05
C3-Benzene	U	0.09	0.05
C4-Benzene	U	0.09	0.05
C5-Benzene	U	0.09	0.05
C0-Naphthalene	U	0.09	0.05
C1-Naphthalene	U	0.09	0.05
C2-Naphthalene	U	0.09	0.05
C3-Naphthalene	U	0.09	0.05
C4-Naphthalene	U	0.09	0.05

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: **Soil Blank**

Client: N/A
 Project: N/A
 Lab ID: JW030930-SB
 File ID: 27OCT16.D
 Date Sampled: N/A
 Date Received: N/A
 Date Prepared: 9/30/2003
 Date Cleanup: N/A
 Date Analyzed: 28 Oct 2003 2:42 am
 Instrument: GC4-MS_59
 Operator: MP

Preparation Method: MET2508
 Cleanup Method(s): N/A
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2 g
 %Solid: 100%
 Extract Volume: 1.8 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: JW030930-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene		U	0.09	0.05	
C1-Fluorene		U	0.09	0.05	
C2-Fluorene		U	0.09	0.05	
C3-Fluorene		U	0.09	0.05	
C0-Phenanthrene/Anthracene		U	0.09	0.05	
C1-Phenanthrene/Anthracene		U	0.09	0.05	
C2-Phenanthrene/Anthracene		U	0.09	0.05	
C3-Phenanthrene/Anthracene		U	0.09	0.05	
C4-Phenanthrene/Anthracene		U	0.09	0.05	
C0-Dibenzothiophene		U	0.09	0.05	
C1-Dibenzothiophene		U	0.09	0.05	
C2-Dibenzothiophene		U	0.09	0.05	
C3-Dibenzothiophene		U	0.09	0.05	
C0-Fluoranthene/Pyrene		U	0.09	0.05	
C1-Fluoranthene/Pyrene		U	0.09	0.05	
C2-Fluoranthene/Pyrene		U	0.09	0.05	
C3-Fluoranthene/Pyrene		U	0.09	0.05	
C0-Benz(a)anthracene/Chrysene		U	0.09	0.05	
C1-Benz(a)anthracene/Chrysene		U	0.09	0.05	
C2-Benz(a)anthracene/Chrysene		U	0.09	0.05	
C3-Benz(a)anthracene/Chrysene		U	0.09	0.05	
C4-Benz(a)anthracene/Chrysene		U	0.09	0.05	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	43%		50%	150%	
2-Fluorobiphenyl	71%		50%	120%	
5a-Androstane	70%		50%	120%	
Benzo(a)pyrene-d12	47%		50%	120%	

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID:	Spike Blank	Preparation Method:	MET2508
		Cleanup Method(s):	N/A
Client:	N/A	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	N/A	Matrix:	Soil
		Preservation:	None
Lab ID:	JW030930-SBS	Decanted:	No
File ID:	27OCT17.D		
Date Sampled:	N/A	Sample Size:	2 g
Date Received:	N/A	%Solid:	100%
Date Prepared:	9/30/2003	Extract Volume:	1.6 mL
Date Cleanup:	N/A	Prep DF:	1
Date Analyzed:	28 Oct 2003 3:55 am	Analysis DF:	1
Instrument:	GC4-MS_59	Injection Volume:	0.001 mL
Operator:	MP	Batch QC:	JW030930-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	13.6		0.08	0.04	54.4%
Toluene	18.3		0.08	0.04	73.2%
Ethylbenzene	21.2		0.08	0.04	84.8%
m/p-Xylenes	22.0		0.08	0.04	88.0%
Styrene	22.2		0.08	0.04	88.8%
o-Xylene	21.7		0.08	0.04	86.8%
1,2,4-Trimethylbenzene	21.8		0.08	0.04	87.2%
Naphthalene	22.9		0.08	0.04	91.6%
2-Methylnaphthalene	24.4		0.08	0.04	97.6%
1-Methylnaphthalene	24.7		0.08	0.04	98.8%
Acenaphthylene	26.1		0.08	0.04	104.4%
Acenaphthene	25.9		0.08	0.04	103.6%
Dibenzofuran	27.1		0.08	0.04	108.4%
Fluorene	26.8		0.08	0.04	107.2%
Phenanthrene	25.9		0.08	0.04	103.6%
Anthracene	22.4		0.08	0.04	89.6%
Fluoranthene	23.2		0.08	0.04	92.8%
Pyrene	23.0		0.08	0.04	92.0%
Benz[a]anthracene	18.4		0.08	0.04	73.6%
Chrysene	18.9		0.08	0.04	75.6%
Benzo[b]fluoranthene	15.5		0.08	0.04	62.0%
Benzo[k]fluoranthene	16.1		0.08	0.04	64.4%
Benzo(e)pyrene		U	0.08	0.04	
Benzo[a]pyrene	15.3		0.08	0.04	61.2%
Perylene		U	0.08	0.04	
Indeno[1,2,3-cd]pyrene	15.4		0.08	0.04	61.6%
Dibenz[a,h]anthracene	15.6		0.08	0.04	62.4%
Benzo[g,h,i]perylene	15.4		0.08	0.04	61.6%

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	55%	50%	150%
2-Fluorobiphenyl	122%	50%	120%
5a-Androstane	104%	50%	120%
Benzo(a)pyrene-d12	73%	50%	120%

Qualifiers:

B Analyte detected in the blank

D Analyte reported from a diluted extract

U Undetected above the detection limit

J Estimated value detected between the reporting and detection limits

E Estimated value detected above calibration range

RL Reporting limit is the sample equivalent of the lowest linear calibration concentration

EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0310103-001A

Client: H2M
 Project: KEY-PSS
 Lab ID: HT031006-01
 File ID: 10NOV18.D
 Date Sampled: 10/3/2003
 Date Received: 10/6/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 11 Nov 2003 10:08 am
 Instrument: GC4-MS_59
 Operator: ecc

Preparation Method: MET2508
 Cleanup Method(s): N/A
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2.169 g
 %Solid: 96%
 Extract Volume: 1.7 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: A1031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene	0.06	J	0.08	0.04	
Toluene	0.70		0.08	0.04	
Ethylbenzene	1.48		0.08	0.04	
m/p-Xylenes	3.71		0.08	0.04	
Styrene	10.1		0.08	0.04	
o-Xylene	2.66		0.08	0.04	
1,2,4-Trimethylbenzene	4.98		0.08	0.04	
Naphthalene	29.2		0.08	0.04	
2-Methylnaphthalene	68.2		0.08	0.04	
1-Methylnaphthalene	55.7		0.08	0.04	
Acenaphthylene	5.75		0.08	0.04	
Acenaphthene	1.84		0.08	0.04	
Dibenzofuran	1.31		0.08	0.04	
Fluorene	5.53		0.08	0.04	
Phenanthrene	17.6		0.08	0.04	
Anthracene	3.83		0.08	0.04	
Fluoranthene	4.47		0.08	0.04	
Pyrene	8.59		0.08	0.04	
Benz[a]anthracene	2.37		0.08	0.04	
Chrysene	2.34		0.08	0.04	
Benzo[b]fluoranthene	0.88		0.08	0.04	
Benzo[k]fluoranthene	1.13		0.08	0.04	
Benzo(e)pyrene	1.34		0.08	0.04	
Benzo[a]pyrene	2.14		0.08	0.04	
Perylene	0.20		0.08	0.04	
Indeno[1,2,3-cd]pyrene	0.71		0.08	0.04	
Dibenz[a,h]anthracene	0.18		0.08	0.04	
Benzo[g,h,i]perylene	1.17		0.08	0.04	

ALKYLATED PAHs:

C0-Benzene	0.06	J	0.08	0.04	
C1-Benzene	0.78		0.08	0.04	
C2-Benzene	8.66		0.08	0.04	
C3-Benzene	38.6		0.08	0.04	
C4-Benzene	40.8		0.08	0.04	
C5-Benzene	4.94		0.08	0.04	
C0-Naphthalene	29.2		0.08	0.04	
C1-Naphthalene	82.2		0.08	0.04	
C2-Naphthalene	48.1		0.08	0.04	
C3-Naphthalene	20.4		0.08	0.04	
C4-Naphthalene	7.13		0.08	0.04	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0310103-001A

Client: H2M
 Project: KEY-PSS
 Lab ID: HT031006-01
 File ID: 10NOV18.D
 Date Sampled: 10/3/2003
 Date Received: 10/6/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 11 Nov 2003 10:08 am
 Instrument: GC4-MS_59
 Operator: ecc

Preparation Method: MET2508
 Cleanup Method(s): N/A
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2.169 g
 %Solid: 96%
 Extract Volume: 1.7 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	5.53		0.08	0.04	
C1-Fluorene	5.38		0.08	0.04	
C2-Fluorene	1.57		0.08	0.04	
C3-Fluorene	0.43		0.08	0.04	
C0-Phenanthrene/Anthracene	22.0		0.08	0.04	
C1-Phenanthrene/Anthracene	11.1		0.08	0.04	
C2-Phenanthrene/Anthracene	2.76		0.08	0.04	
C3-Phenanthrene/Anthracene	0.41		0.08	0.04	
C4-Phenanthrene/Anthracene	0.07	J	0.08	0.04	
C0-Dibenzothiophene	2.14		0.08	0.04	
C1-Dibenzothiophene	1.98		0.08	0.04	
C2-Dibenzothiophene	0.78		0.08	0.04	
C3-Dibenzothiophene	0.45		0.08	0.04	
C0-Fluoranthene/Pyrene	14.6		0.08	0.04	
C1-Fluoranthene/Pyrene	4.94		0.08	0.04	
C2-Fluoranthene/Pyrene	1.25		0.08	0.04	
C3-Fluoranthene/Pyrene	0.29		0.08	0.04	
C0-Benz(a)anthracene/Chrysene	4.92		0.08	0.04	
C1-Benz(a)anthracene/Chrysene	1.92		0.08	0.04	
C2-Benz(a)anthracene/Chrysene	0.58		0.08	0.04	
C3-Benz(a)anthracene/Chrysene	0.14		0.08	0.04	
C4-Benz(a)anthracene/Chrysene	0.12		0.08	0.04	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	78%		50%	150%	
2-Fluorobiphenyl	71%		50%	120%	
5a-Androstane	68%		50%	120%	
Benzo(a)pyrene-d12	80%		50%	120%	

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0310103-002A

 Client: H2M
 Project: KEY-PASS

 Lab ID: HT031006-02
 File ID: 10NOV19.D

 Date Sampled: 10/3/2003
 Date Received: 10/6/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 11 Nov 2003 11:16 am
 Instrument: GC4-MS_59
 Operator: ecc

Preparation Method: MET2508

Cleanup Method(s): N/A

Analysis Method: GC/MS (EPA 8270 Mod.)

Matrix: Soil

Preservation: None

Decanted: No

Sample Size: 1.935 g

%Solid: 96%

Extract Volume: 1.2 mL

Prep DF: 1

Analysis DF: 1

Injection Volume: 0.001 mL

Batch QC: AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene		U	0.06	0.03	
Toluene	0.61		0.06	0.03	
Ethylbenzene	1.84		0.06	0.03	
m/p-Xylenes	6.20		0.06	0.03	
Styrene	8.46		0.06	0.03	
o-Xylene	4.49		0.06	0.03	
1,2,4-Trimethylbenzene	4.02		0.06	0.03	
Naphthalene	185	D	0.06	0.03	
2-Methylnaphthalene	135	D	0.06	0.03	
1-Methylnaphthalene	85.1	D	0.06	0.03	
Acenaphthylene	34.0		0.06	0.03	
Acenaphthene	5.14		0.06	0.03	
Dibenzofuran	4.46		0.06	0.03	
Fluorene	19.9		0.06	0.03	
Phenanthrene	91.5	D	0.06	0.03	
Anthracene	19.8		0.06	0.03	
Fluoranthene	16.7		0.06	0.03	
Pyrene	32.6		0.06	0.03	
Benz[a]anthracene	9.66		0.06	0.03	
Chrysene	8.60		0.06	0.03	
Benzo[b]fluoranthene	3.01		0.06	0.03	
Benzo[k]fluoranthene	3.54		0.06	0.03	
Benzo(e)pyrene	4.31		0.06	0.03	
Benzo[a]pyrene	7.92		0.06	0.03	
Perylene	0.87		0.06	0.03	
Indeno[1,2,3-cd]pyrene	2.08		0.06	0.03	
Dibenz[a,h]anthracene	0.62		0.06	0.03	
Benzo[g,h,i]perylene	3.11		0.06	0.03	

ALKYLATED PAHs:

C0-Benzene		U	0.06	0.03	
C1-Benzene	0.69		0.06	0.03	
C2-Benzene	13.0		0.06	0.03	
C3-Benzene	29.8		0.06	0.03	
C4-Benzene	21.0		0.06	0.03	
C5-Benzene	3.05		0.06	0.03	
C0-Naphthalene	185	D	0.06	0.03	
C1-Naphthalene	144	D	0.06	0.03	
C2-Naphthalene	103		0.06	0.03	
C3-Naphthalene	33.3		0.06	0.03	
C4-Naphthalene	8.33		0.06	0.03	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0310103-002A

Preparation Method: MET2508

Cleanup Method(s): N/A

 Client: H2M
 Project: KEY-PASS

Analysis Method: GC/MS (EPA 8270 Mod.)

Matrix: Soil

Preservation: None

Decanted: No

Lab ID: HT031006-02

File ID: 10NOV19.D

 Date Sampled: 10/3/2003
 Date Received: 10/6/2003
 Date Prepared: 10/8/2003
 Date Cleanup: N/A
 Date Analyzed: 11 Nov 2003 11:16 am
 Instrument: GC4-MS_59
 Operator: ecc

 Sample Size: 1.935 g
 %Solid: 96%
 Extract Volume: 1.2 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0-Fluorene	19.9		0.06	0.03	
C1-Fluorene	20.9		0.06	0.03	
C2-Fluorene	5.76		0.06	0.03	
C3-Fluorene	1.25		0.06	0.03	
C0-Phenanthrene/Anthracene	118	D	0.06	0.03	
C1-Phenanthrene/Anthracene	52.1		0.06	0.03	
C2-Phenanthrene/Anthracene	13.1		0.06	0.03	
C3-Phenanthrene/Anthracene	1.74		0.06	0.03	
C4-Phenanthrene/Anthracene	0.30		0.06	0.03	
C0-Dibenzothiophene	9.46		0.06	0.03	
C1-Dibenzothiophene	7.87		0.06	0.03	
C2-Dibenzothiophene	3.00		0.06	0.03	
C3-Dibenzothiophene	1.13		0.06	0.03	
C0-Fluoranthene/Pyrene	58.3		0.06	0.03	
C1-Fluoranthene/Pyrene	22.5		0.06	0.03	
C2-Fluoranthene/Pyrene	4.96		0.06	0.03	
C3-Fluoranthene/Pyrene	1.05		0.06	0.03	
C0-Benz(a)anthracene/Chrysene	19.1		0.06	0.03	
C1-Benz(a)anthracene/Chrysene	7.46		0.06	0.03	
C2-Benz(a)anthracene/Chrysene	2.18		0.06	0.03	
C3-Benz(a)anthracene/Chrysene	0.52		0.06	0.03	
C4-Benz(a)anthracene/Chrysene	0.27		0.06	0.03	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	74%		50%	150%	
2-Fluorobiphenyl	76%		50%	120%	
5 α -Androstane	78%		50%	120%	
Benzo(a)pyrene-d12	92%		50%	120%	

Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client: N/A
 Project: N/A
 Lab ID: AI031008-SB
 File ID: 06NOV14.D
 Date Sampled:
 Date Received:
 Date Prepared: 10/8/2003
 Date Cleanup:
 Date Analyzed: 7 Nov 2003 1:19 pm
 Instrument: GC2-MS_59
 Operator: ECC

Preparation Method: EPA 3570
 Cleanup Method(s):
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2 g
 %Solid: 100%
 Extract Volume: 1.7 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
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PAH COMPOUNDS:

Benzene	U	0.09	0.04
Toluene	U	0.09	0.04
Ethylbenzene	U	0.09	0.04
m/p-Xylenes	U	0.09	0.04
Styrene	U	0.09	0.04
o-Xylene	U	0.09	0.04
1,2,4-Trimethylbenzene	U	0.09	0.04
Naphthalene	U	0.09	0.04
2-Methylnaphthalene	U	0.09	0.04
1-Methylnaphthalene	U	0.09	0.04
Acenaphthylene	U	0.09	0.04
Acenaphthene	U	0.09	0.04
Dibenzofuran	U	0.09	0.04
Fluorene	U	0.09	0.04
Phenanthrene	U	0.09	0.04
Anthracene	U	0.09	0.04
Fluoranthene	U	0.09	0.04
Pyrene	U	0.09	0.04
Benz[a]anthracene	U	0.09	0.04
Chrysene	U	0.09	0.04
Benzo[b]fluoranthene	U	0.09	0.04
Benzo[k]fluoranthene	U	0.09	0.04
Benzo(e)pyrene	U	0.09	0.04
Benzo[a]pyrene	U	0.09	0.04
Perylene	U	0.09	0.04
Indeno[1,2,3-cd]pyrene	U	0.09	0.04
Dibenz[a,h]anthracene	U	0.09	0.04
Benzo[g,h,i]perylene	U	0.09	0.04

ALKYLATED PAHs:

C0 - Benzene	U	0.09	0.04
C1 - Benzene	U	0.09	0.04
C2 - Benzene	U	0.09	0.04
C3 - Benzene	U	0.09	0.04
C4 - Benzene	U	0.09	0.04
C5 - Benzene	U	0.09	0.04
C0 - Naphthalene	U	0.09	0.04
C1 - Naphthalene	U	0.09	0.04
C2 - Naphthalene	U	0.09	0.04
C3 - Naphthalene	U	0.09	0.04
C4 - Naphthalene	U	0.09	0.04

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID:	Soil Blank	Preparation Method:	EPA 3570
		Cleanup Method(s):	
Client:	N/A	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	N/A	Matrix:	Soil
		Preservation:	None
Lab ID:	AI031008-SB	Decanted:	No
File ID:	06NOV14.D		
Date Sampled:		Sample Size:	2 g
Date Received:		%Solid:	100%
Date Prepared:	10/8/2003	Extract Volume:	1.7 mL
Date Cleanup:		Prep DF:	1
Date Analyzed:	7 Nov 2003 1:19 pm	Analysis DF:	1
Instrument:	GC2-MS_59	Injection Volume:	0.001 mL
Operator:	ECC	Batch QC:	AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0 - Fluorene		U	0.09	0.04	
C1 - Fluorene		U	0.09	0.04	
C2 - Fluorene		U	0.09	0.04	
C3 - Fluorene		U	0.09	0.04	
C0 - Phenanthrene/Anthracene		U	0.09	0.04	
C1 - Phenanthrene/Anthracene		U	0.09	0.04	
C2 - Phenanthrene/Anthracene		U	0.09	0.04	
C3 - Phenanthrene/Anthracene		U	0.09	0.04	
C4 - Phenanthrene/Anthracene		U	0.09	0.04	
C0 - Dibenzothiophene		U	0.09	0.04	
C1 - Dibenzothiophene		U	0.09	0.04	
C2 - Dibenzothiophene		U	0.09	0.04	
C3 - Dibenzothiophene		U	0.09	0.04	
C0 - Fluoranthene/Pyrene		U	0.09	0.04	
C1 - Fluoranthene/Pyrene		U	0.09	0.04	
C2 - Fluoranthene/Pyrene		U	0.09	0.04	
C3 - Fluoranthene/Pyrene		U	0.09	0.04	
C0 - Benz(a)anthracene/Chrysene		U	0.09	0.04	
C1 - Benz(a)anthracene/Chrysene		U	0.09	0.04	
C2 - Benz(a)anthracene/Chrysene		U	0.09	0.04	
C3 - Benz(a)anthracene/Chrysene		U	0.09	0.04	
C4 - Benz(a)anthracene/Chrysene		U	0.09	0.04	
EXTRACTION SURROGATE COMPOUNDS:	%R		Min	Max	
Fluorobenzene	69%		50%	150%	
2-Fluorobiphenyl	92%		50%	120%	
5a-Androstane	94%		50%	120%	
Benzo(a)pyrene-d12	102%		50%	120%	

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID:	Spike Blank	Preparation Method:	MET2508
		Cleanup Method(s):	N/A
Client:	N/A	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	N/A	Matrix:	Soil
		Preservation:	None
Lab ID:	AI031008-SBS	Decanted:	No
File ID:	27OCT19.D		
Date Sampled:	N/A	Sample Size:	2 g
Date Received:	N/A	%Solid:	100%
Date Prepared:	10/8/2003	Extract Volume:	1.7 mL
Date Cleanup:	N/A	Prep DF:	1
Date Analyzed:	28 Oct 2003 6:20 am	Analysis DF:	1
Instrument:	GC4-MS_59	Injection Volume:	0.001 mL
Operator:	MP	Batch QC:	AI031008-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	9.89		0.09	0.04	39.6%
Toluene	12.6		0.09	0.04	50.4%
Ethylbenzene	14.4		0.09	0.04	57.6%
m/p-Xylenes	15.0		0.09	0.04	60.0%
Styrene	15.1		0.09	0.04	60.4%
o-Xylene	14.8		0.09	0.04	59.2%
1,2,4-Trimethylbenzene	15.5		0.09	0.04	62.0%
Naphthalene	16.4		0.09	0.04	65.6%
2-Methylnaphthalene	17.8		0.09	0.04	71.2%
1-Methylnaphthalene	18.0		0.09	0.04	72.0%
Acenaphthylene	19.4		0.09	0.04	77.6%
Acenaphthene	19.3		0.09	0.04	77.2%
Dibenzofuran	20.1		0.09	0.04	80.4%
Fluorene	20.1		0.09	0.04	80.4%
Phenanthrene	19.4		0.09	0.04	77.6%
Anthracene	20.4		0.09	0.04	81.6%
Fluoranthene	17.8		0.09	0.04	71.2%
Pyrene	17.6		0.09	0.04	70.4%
Benz[a]anthracene	14.0		0.09	0.04	56.0%
Chrysene	14.5		0.09	0.04	58.0%
Benzo[b]fluoranthene	11.4		0.09	0.04	45.6%
Benzo[k]fluoranthene	12.1		0.09	0.04	48.4%
Benzo(e)pyrene		U	0.09	0.04	
Benzo[a]pyrene	11.4		0.09	0.04	45.6%
Perylene		U	0.09	0.04	
Indeno[1,2,3-cd]pyrene	11.3		0.09	0.04	45.2%
Dibenz[a,h]anthracene	11.4		0.09	0.04	45.6%
Benzo[g,h,i]perylene	11.3		0.09	0.04	45.2%

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	38%	50%	150%
2-Fluorobiphenyl	80%	50%	120%
5a-Androstane	77%	50%	120%
Benzo(a)pyrene-d12	46%	50%	120%

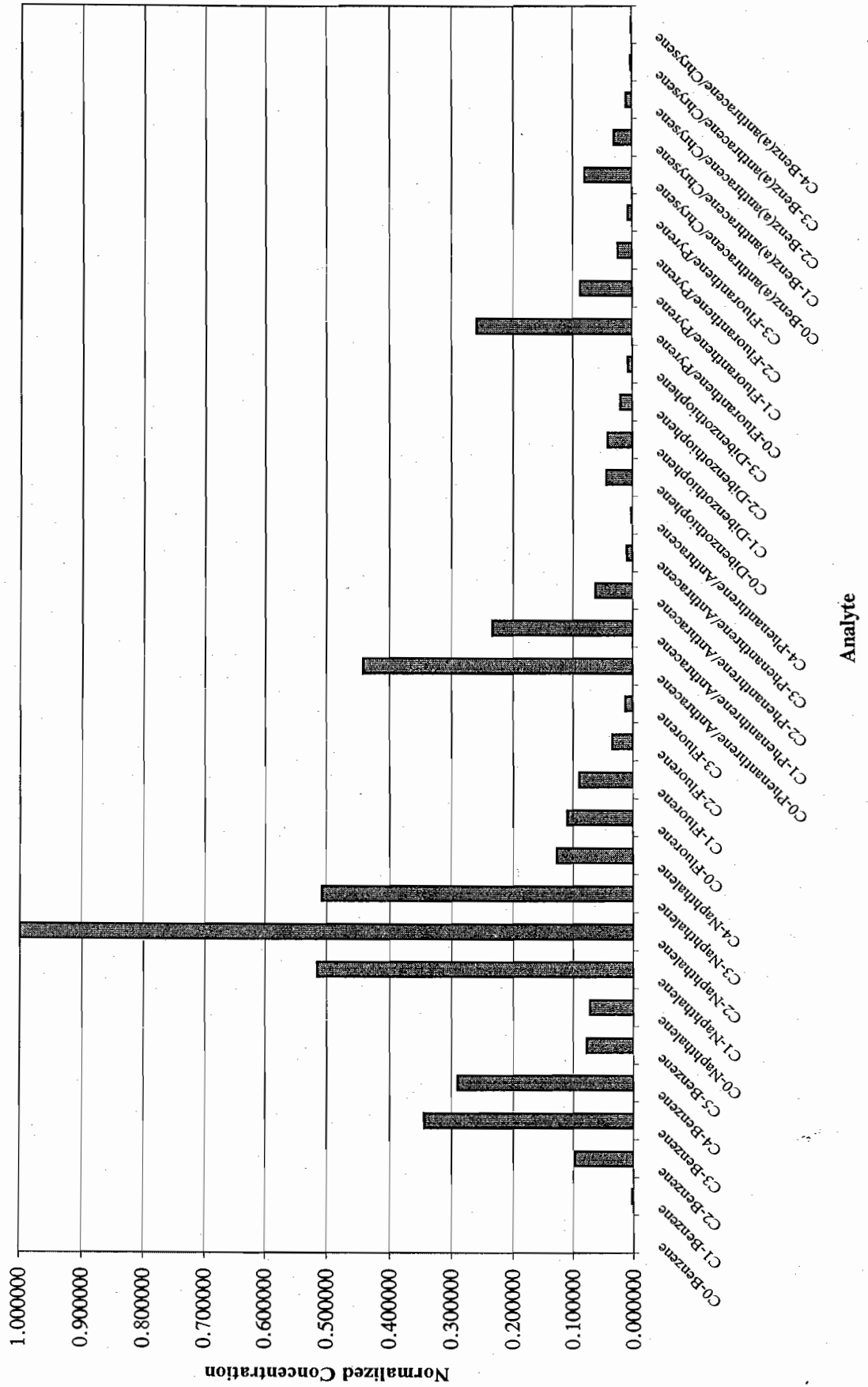
Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

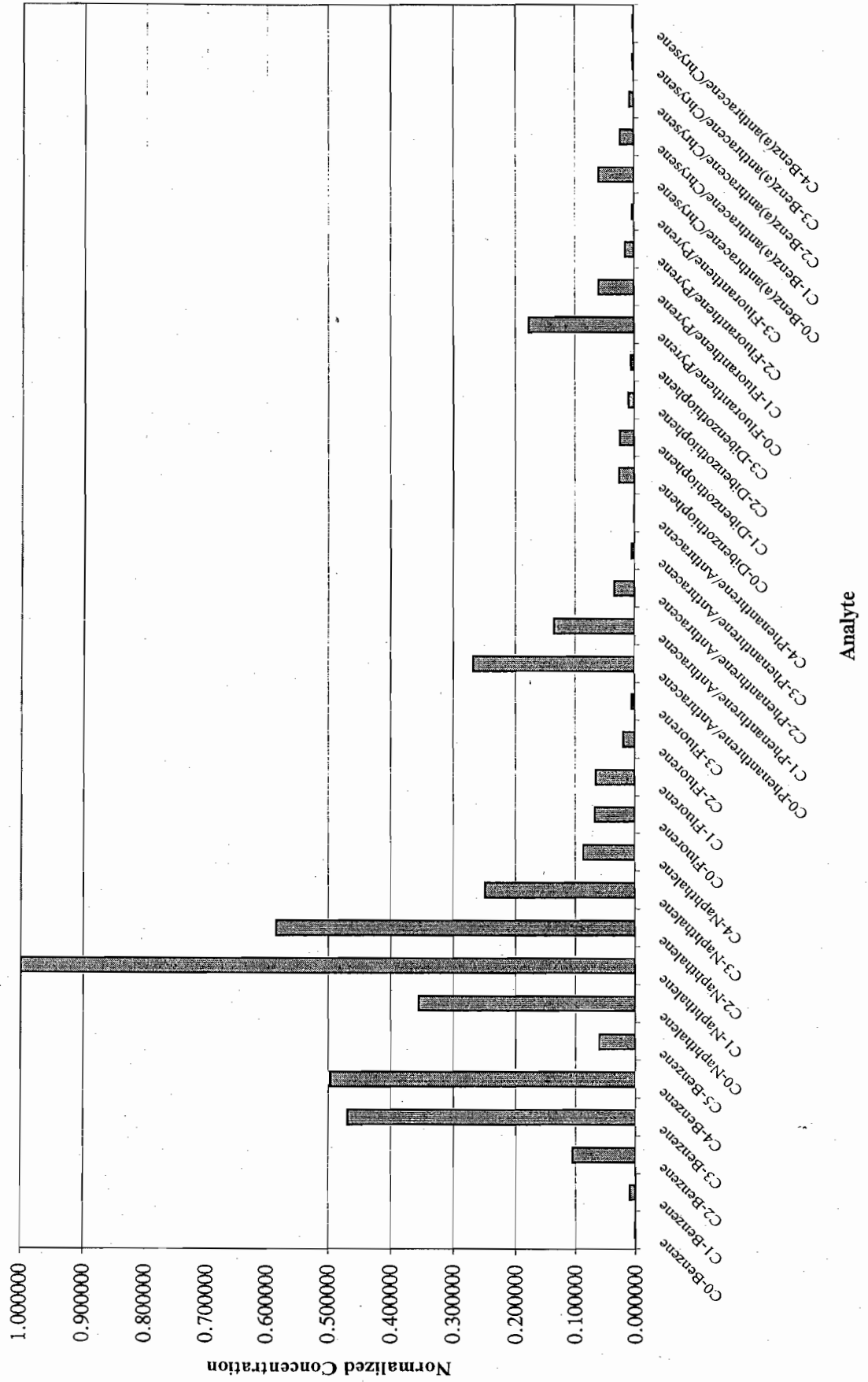
Appendix D

Extended PAH Profiles – Bar Graphs

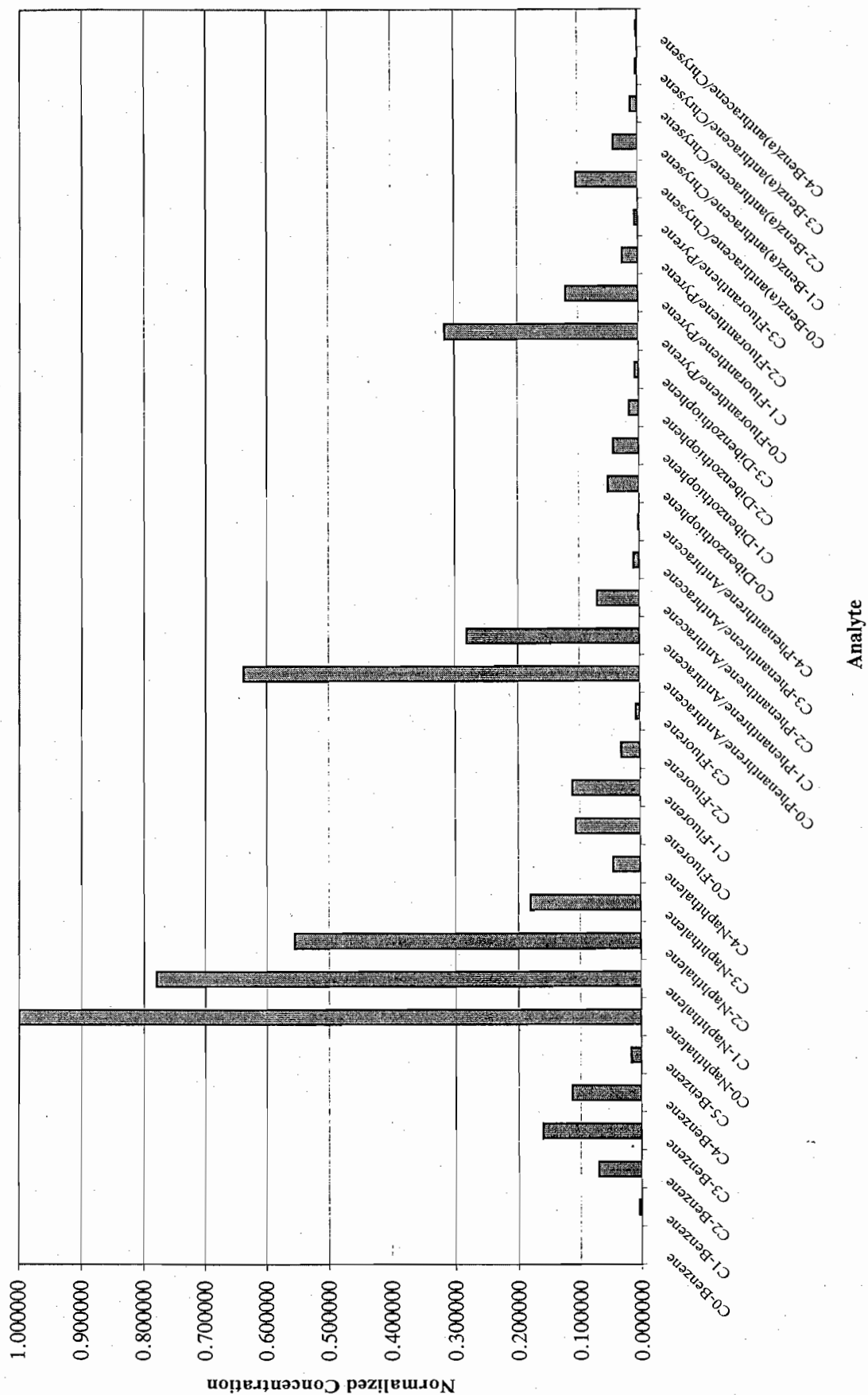
0309817-001A



0310103-001A



0310103-002A



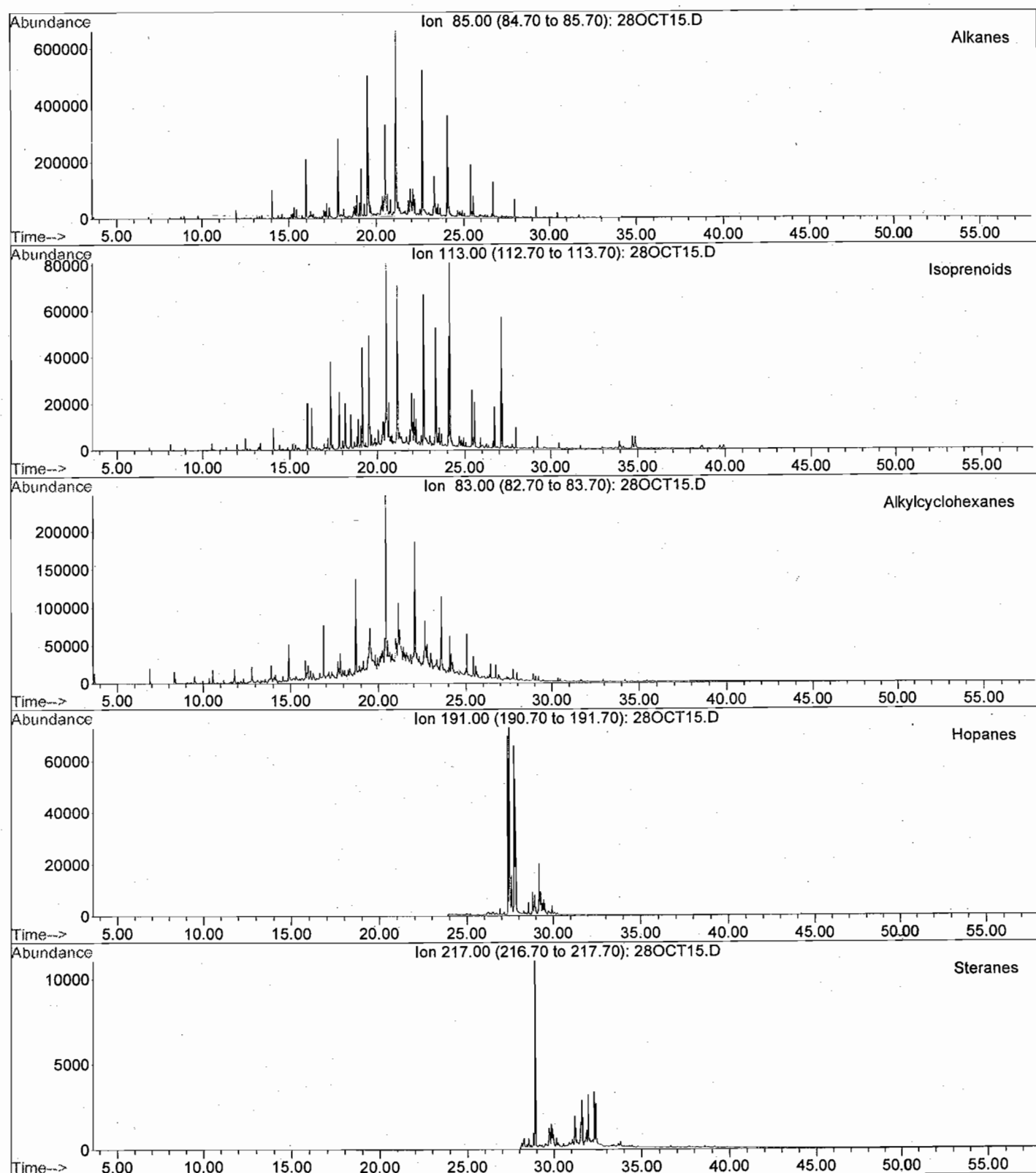
Appendix E

Extracted Ion Current Profiles (EICs)

Primary Ions for Target Compounds and Compound Groups

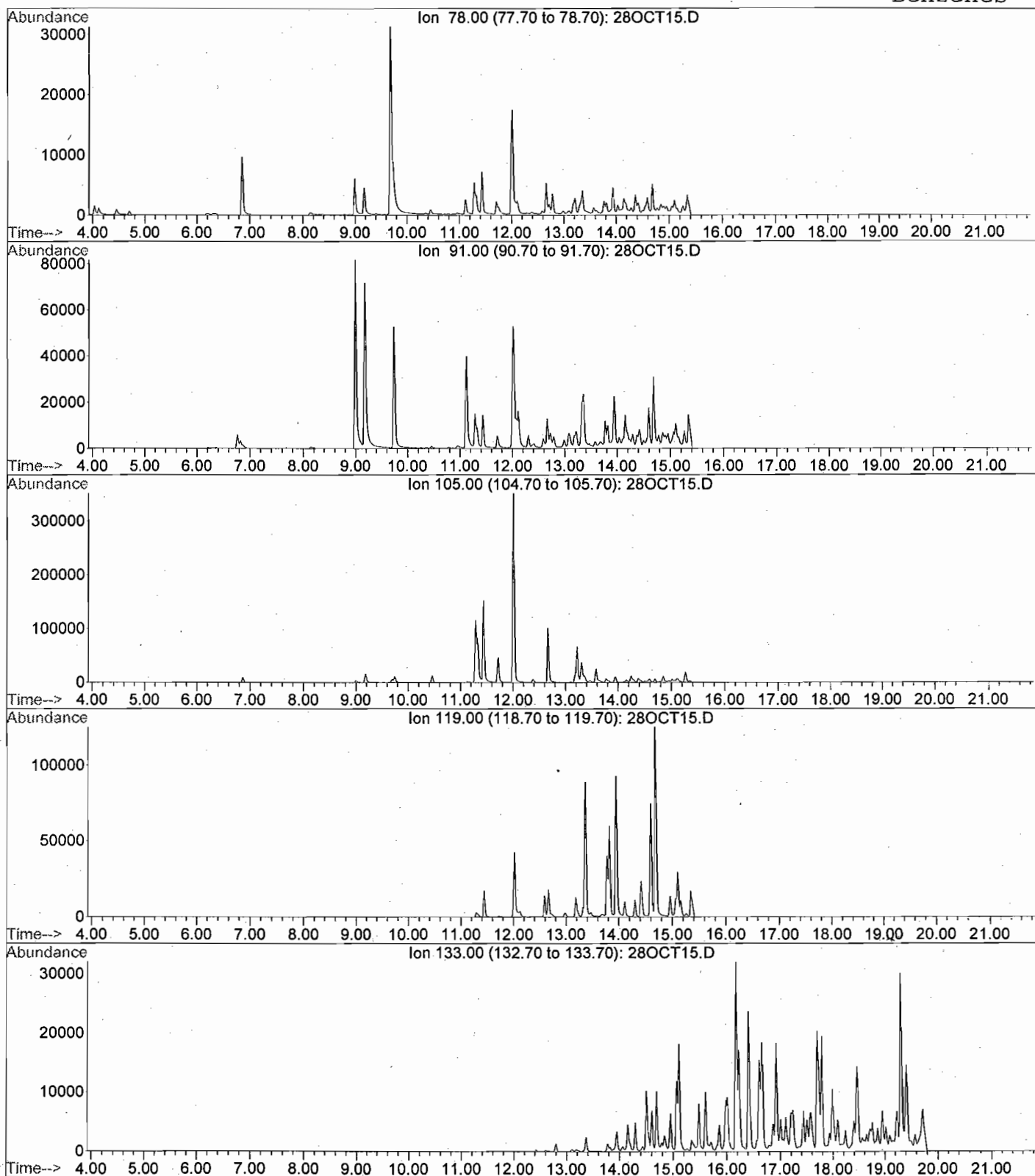
Target Compound or Group	Abbreviation	Ion
Alkylated cyclohexanes		83
Normal alkanes, pristane, phytane		85
Isoprenoid hydrocarbons, pristane, phytane		113
Olefins		115
Hopanes		191
Steranes		217
Benzene	B	78
Monoalkylbenzenes	C1B	91
Dialkylbenzenes	C2B	91
Trialkylbenzenes	C3B	105
Tetraalkylbenzenes	C4B	119
Pentaalkylbenzenes	C5B	133
Naphthalene	N	128
Monoalkylnaphthalenes	C1N	142
Dialkylnaphthalenes	C2N	156
Trialkylnaphthalenes	C3N	170
Tetraalkylnaphthalenes	C4N	184
Fluorene	F	166
Monoalkylfluorenes	C1F	180
Dialkylfluorenes	C2F	194
Trialkylfluorenes	C3F	208
Phenanthrene, anthracene	PA	178
Monoalkylphenanthrenes and anthracenes	C1PA	192
Dialkylphenanthrenes and anthracenes	C2PA	206
Trialkylphenanthrenes and anthracenes	C3PA	220
Tetraalkylphenanthrenes and anthracenes	C4PA	234
Dibenzothiophene	D	184
Monoalkyldibenzothiophenes	C1D	198
Dialkyldibenzothiophenes	C2D	212
Trialkyldibenzothiophenes	C3D	226
Fluoranthene, pyrene	FP	202
Monoalkylfluoranthenes and pyrenes	C1FP	216
Dialkylfluoranthenes and pyrenes	C2FP	230
Trialkylfluoranthenes and pyrenes	C3FP	244
Benz(a)anthracene, chrysene	BC	228
Monoalkylbenz(a)anthracenes and chrysenes	C1BC	242
Dialkylbenz(a)anthracenes and chrysenes	C2BC	256
Trialkylbenz(a)anthracenes and chrysenes	C3BC	270
Tetraalkylbenz(a)anthracenes and chrysenes	C4BC	284

Field ID: 0309817-001A
Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP



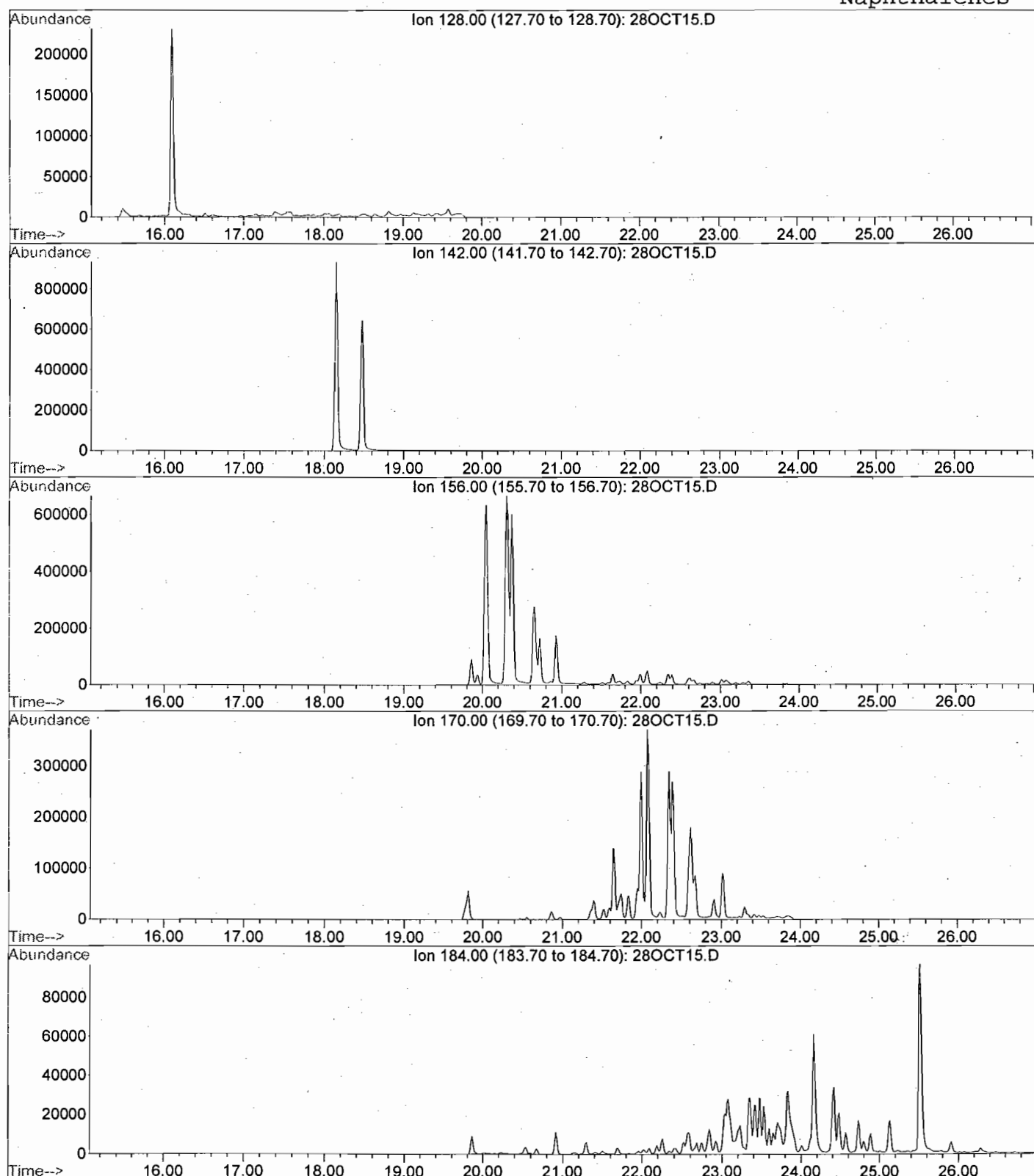
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Lab ID: HT030930-01
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Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Benzenes



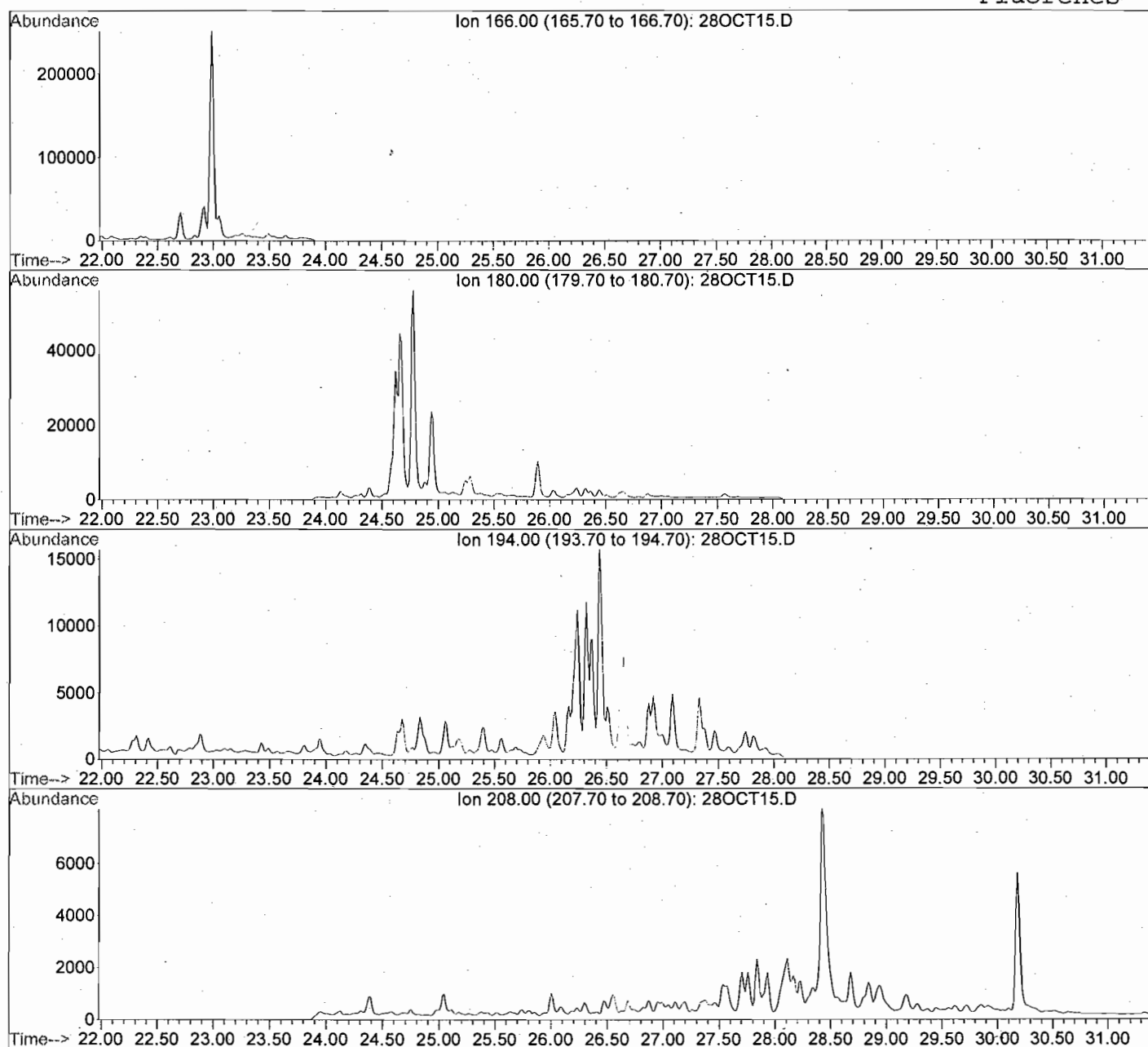
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Lab ID: HT030930-01
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Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Naphthalenes



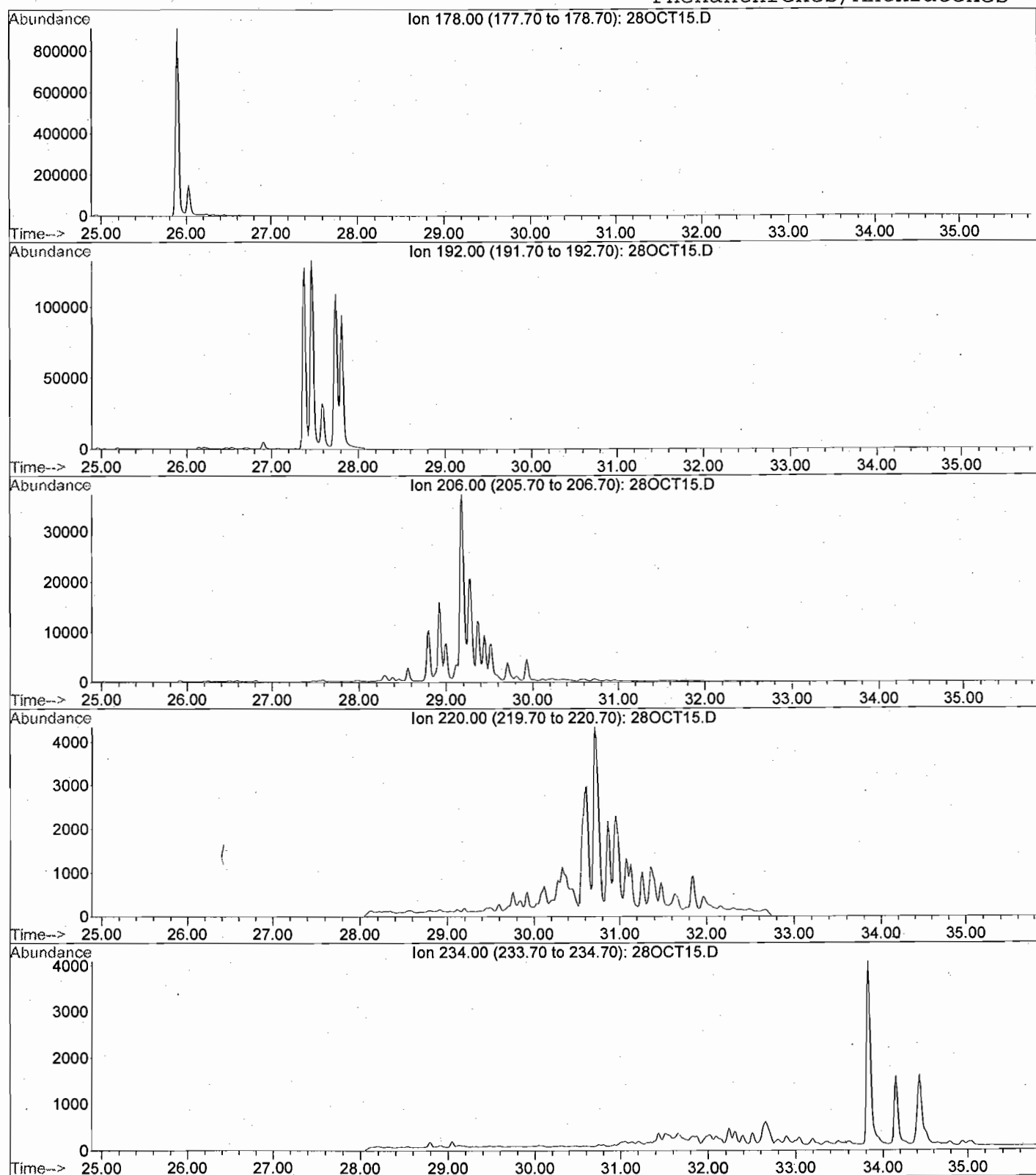
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Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluorenes



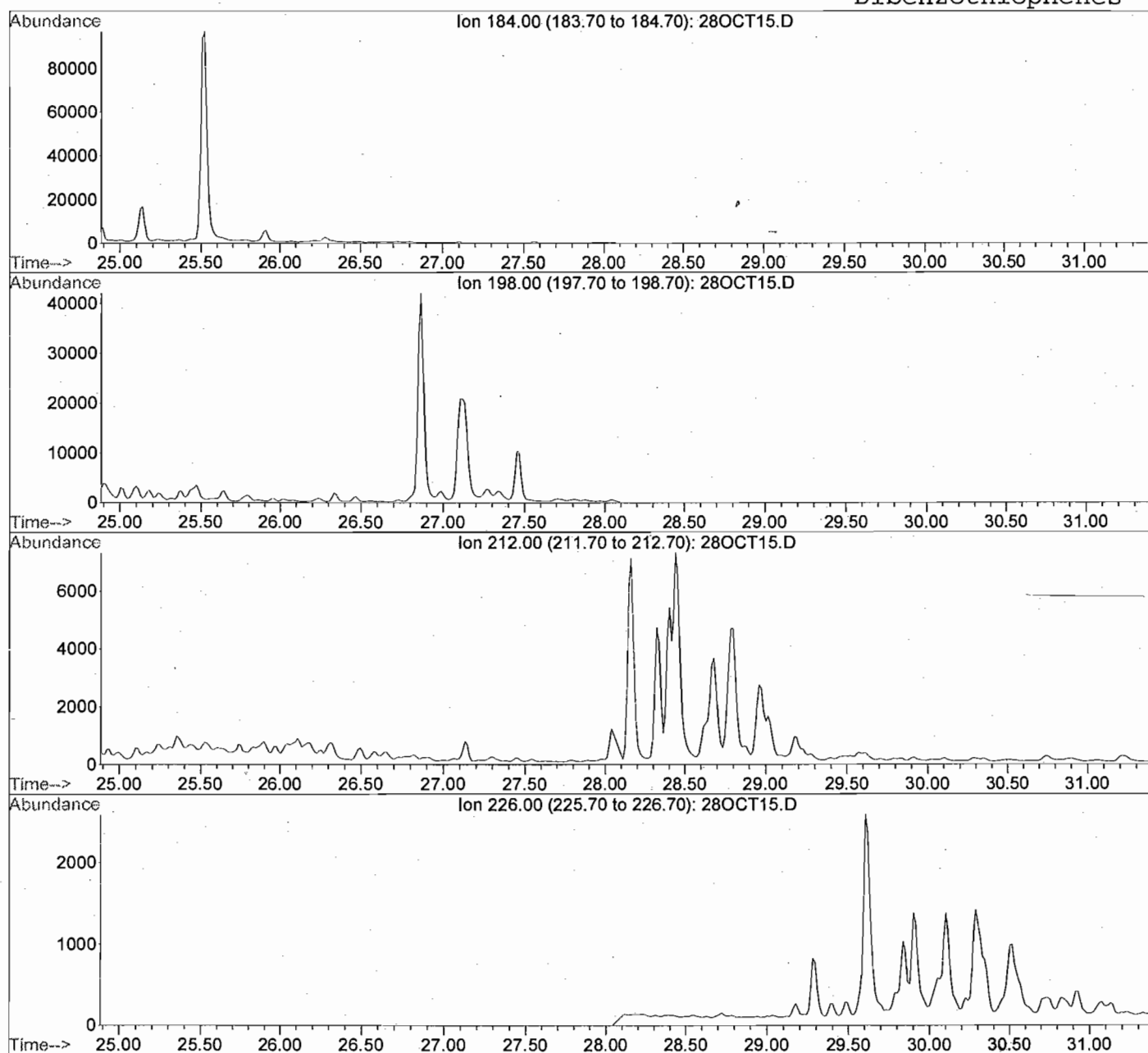
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Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Phenanthrenes/Anthracenes



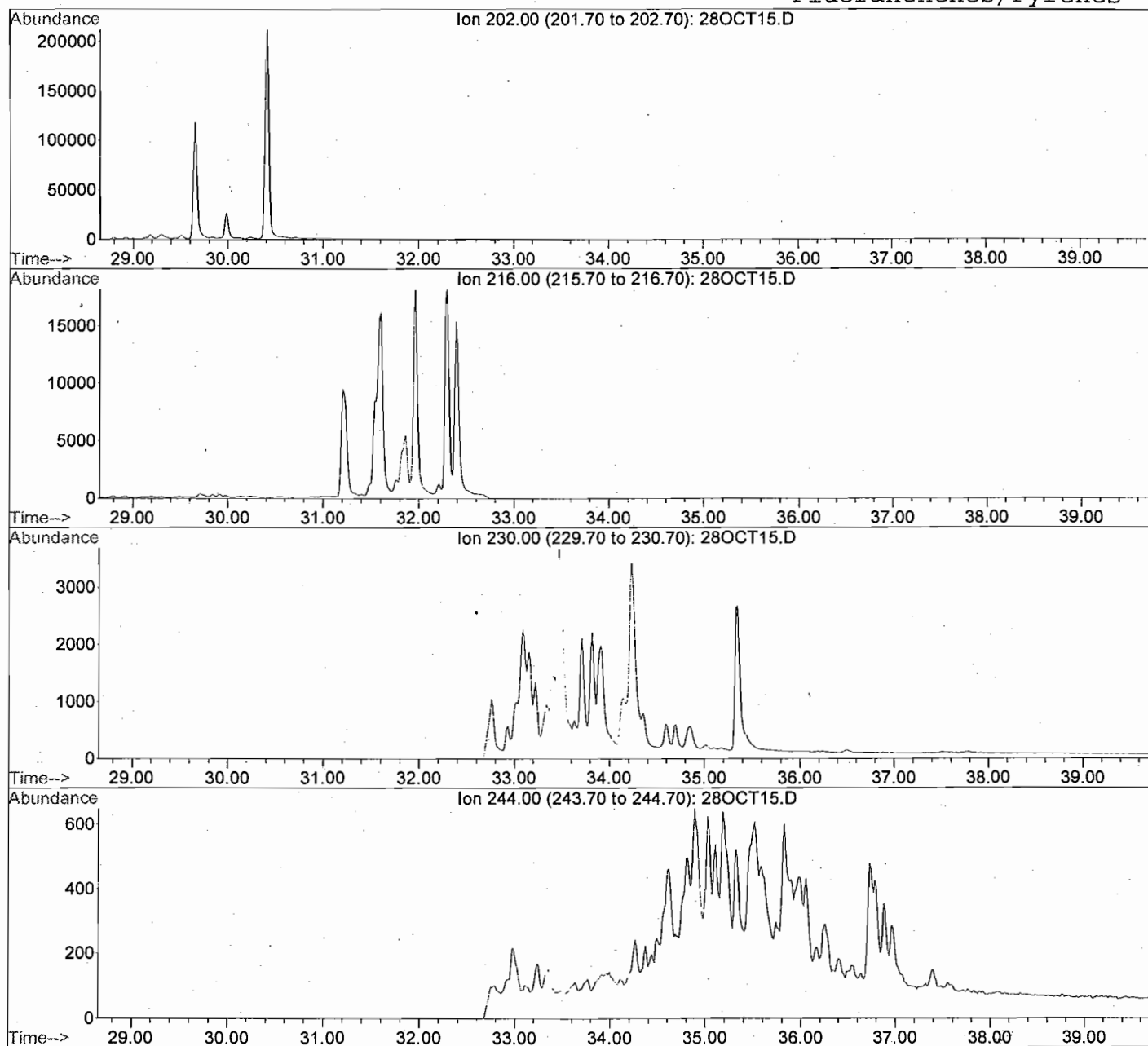
Field ID: 0309817-001A
Lab ID: HT030930-01
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Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Dibenzothiophenes



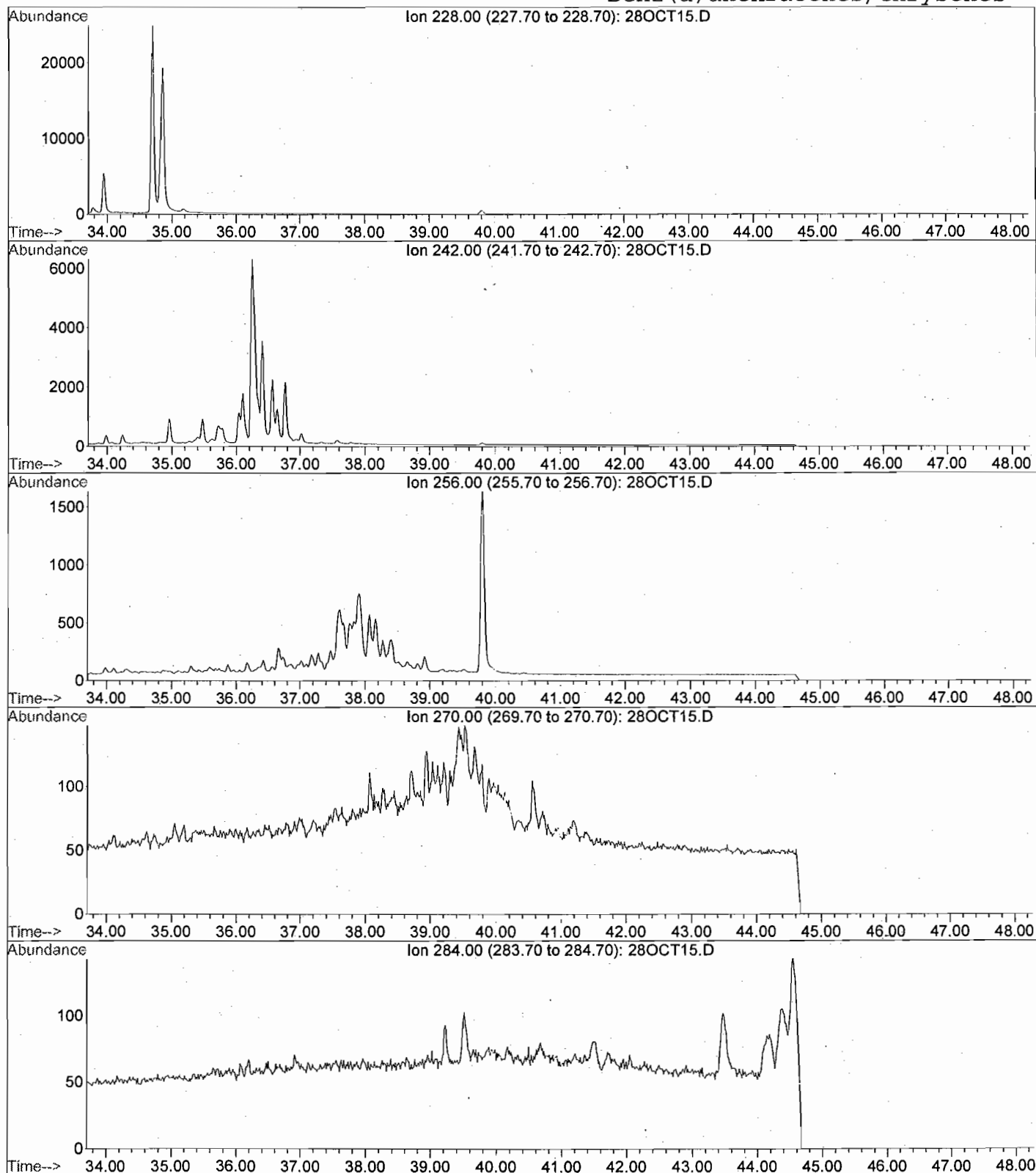
Field ID: 0309817-001A
Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluoranthenes/Pyrenes

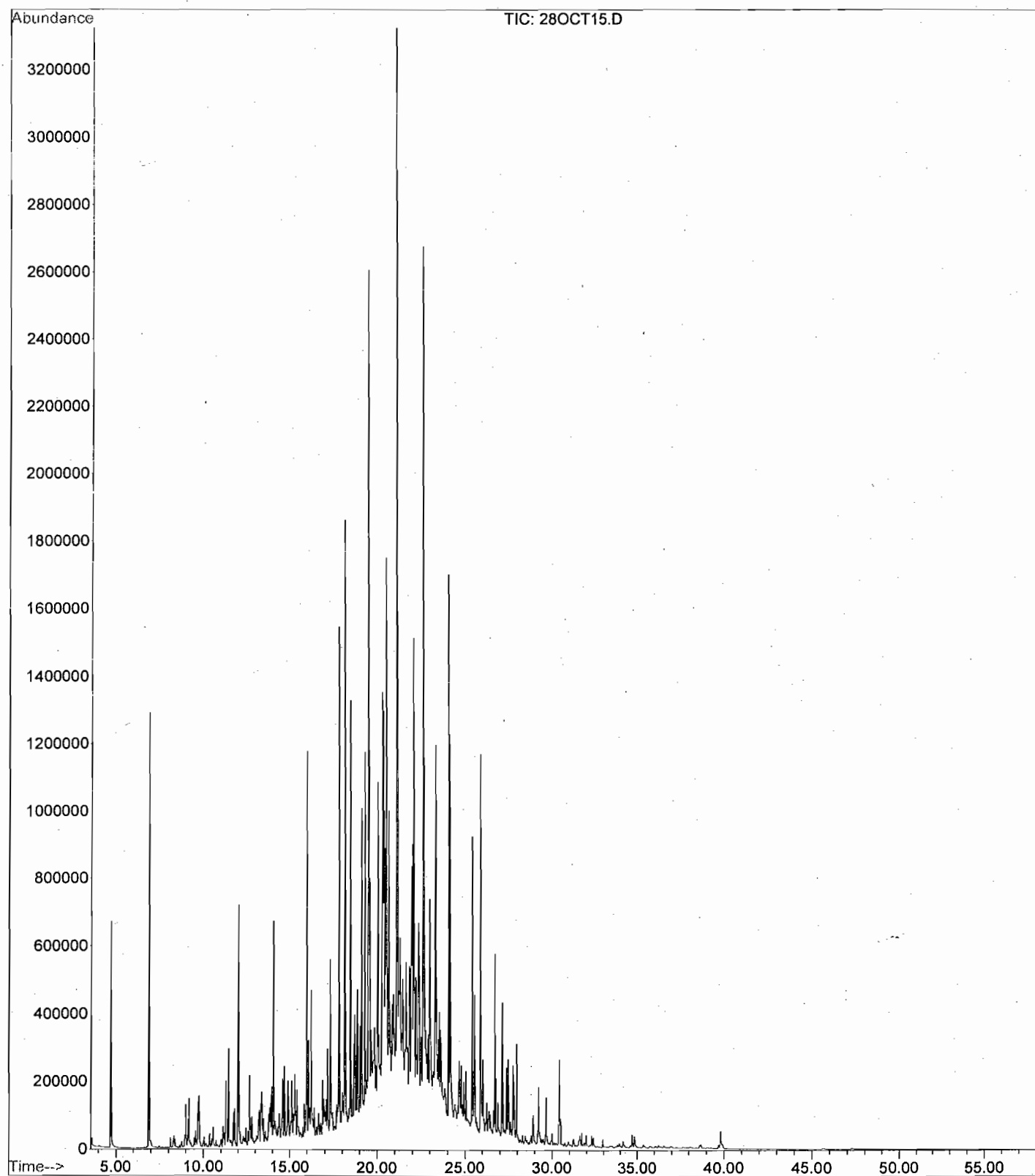


Field ID: 0309817-001A
Lab ID: HT030930-01
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Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

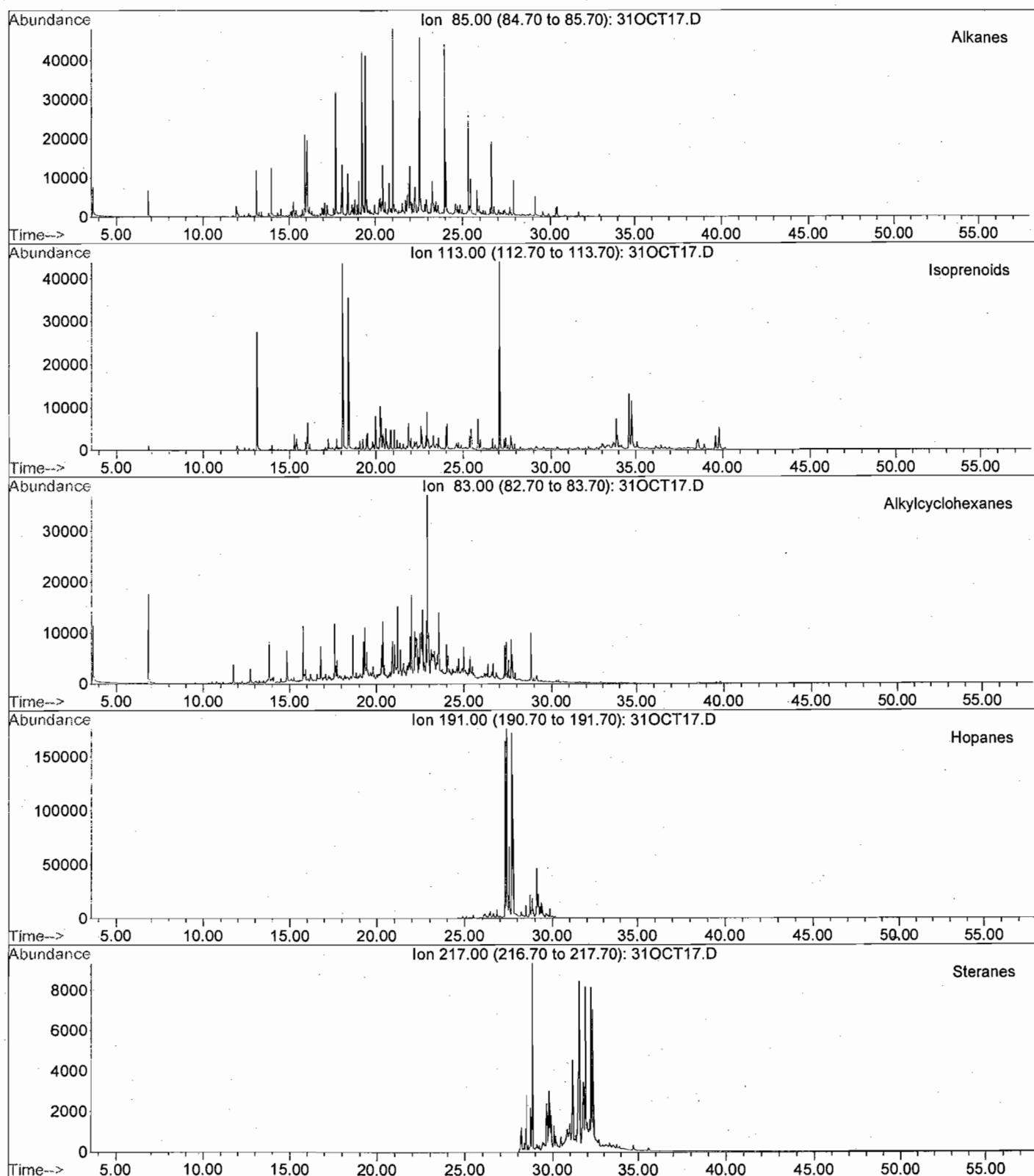
Benz (a) anthracenes/Chrysenes



Field ID: 0309817-001A
Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

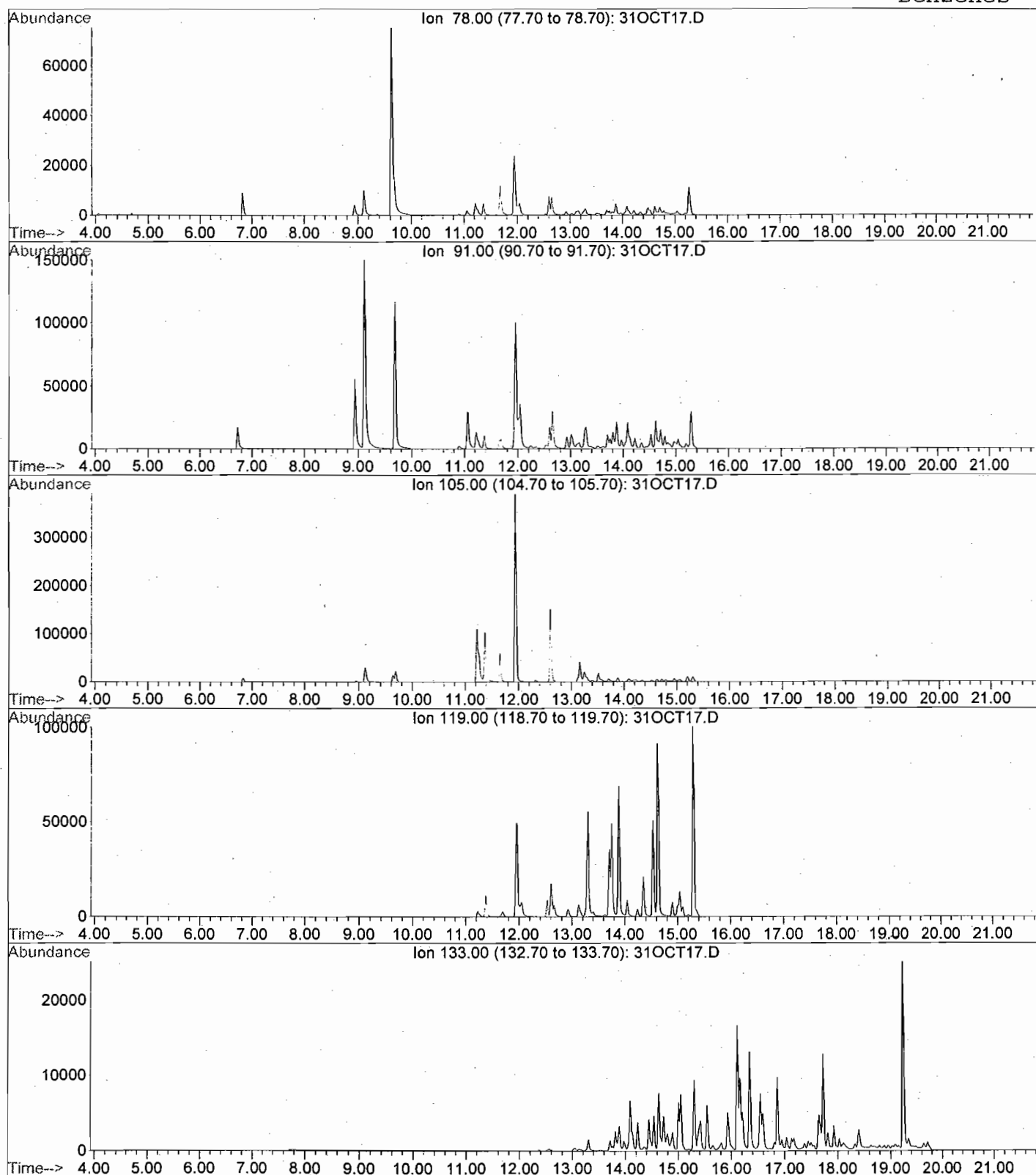


Field ID: 0310103-001A
Lab ID: HT031006-01
File: I:\4\DATA\031031\31OCT17.D
Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP



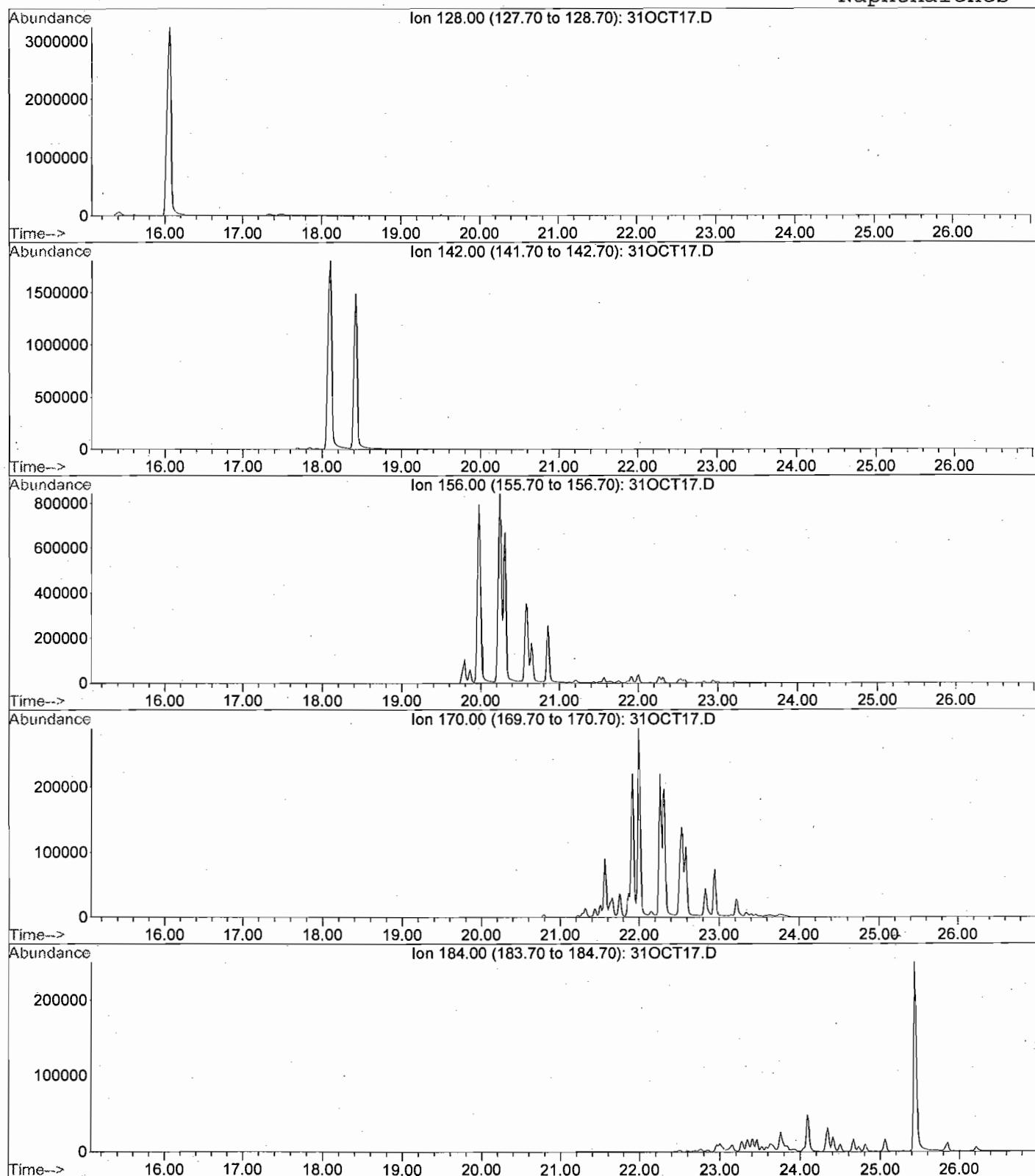
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Lab ID: HT031006-01
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Instrument: GC4-MS_59 Operator: MP

Benzenes



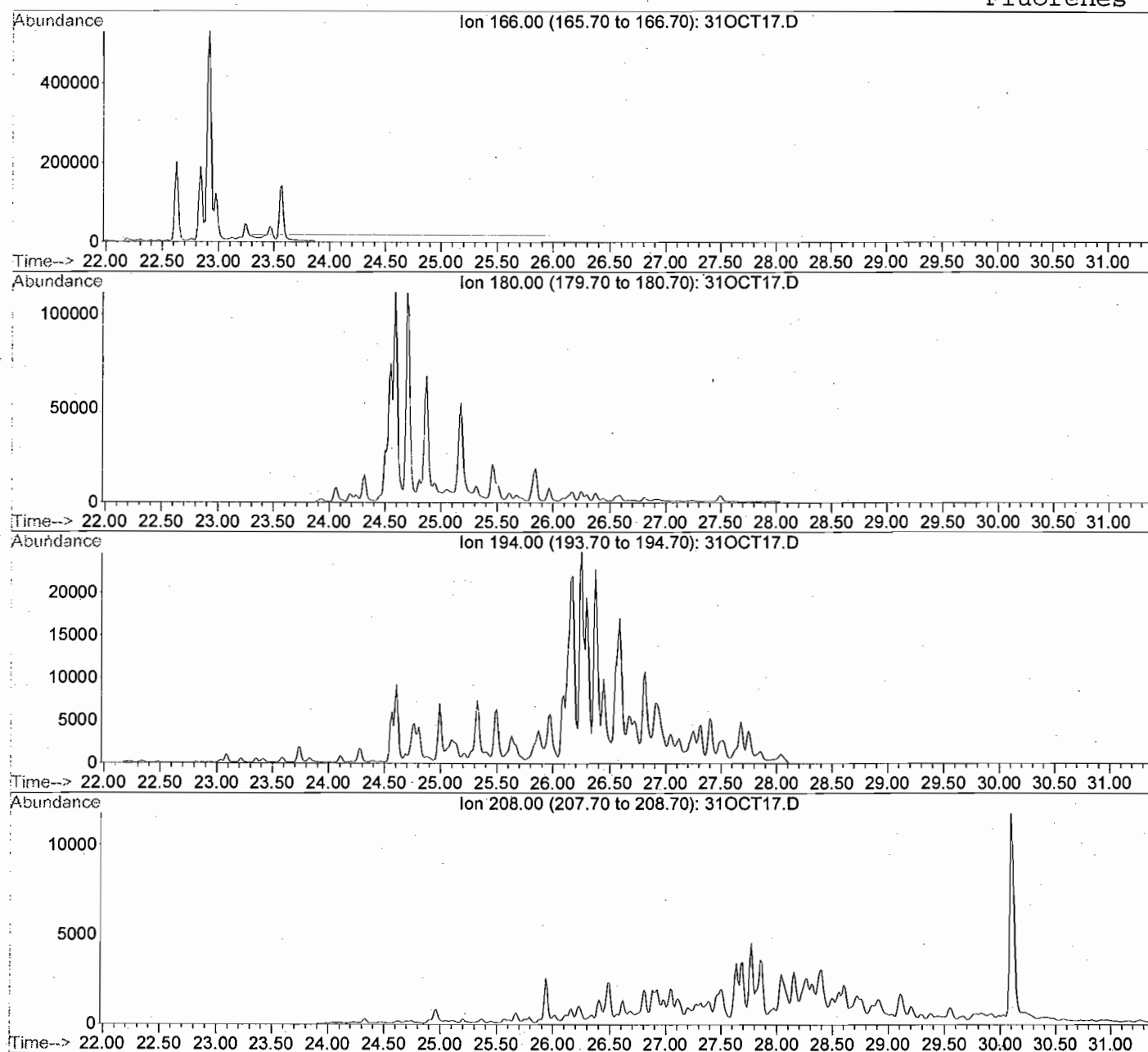
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Lab ID: HT031006-01
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Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Naphthalenes



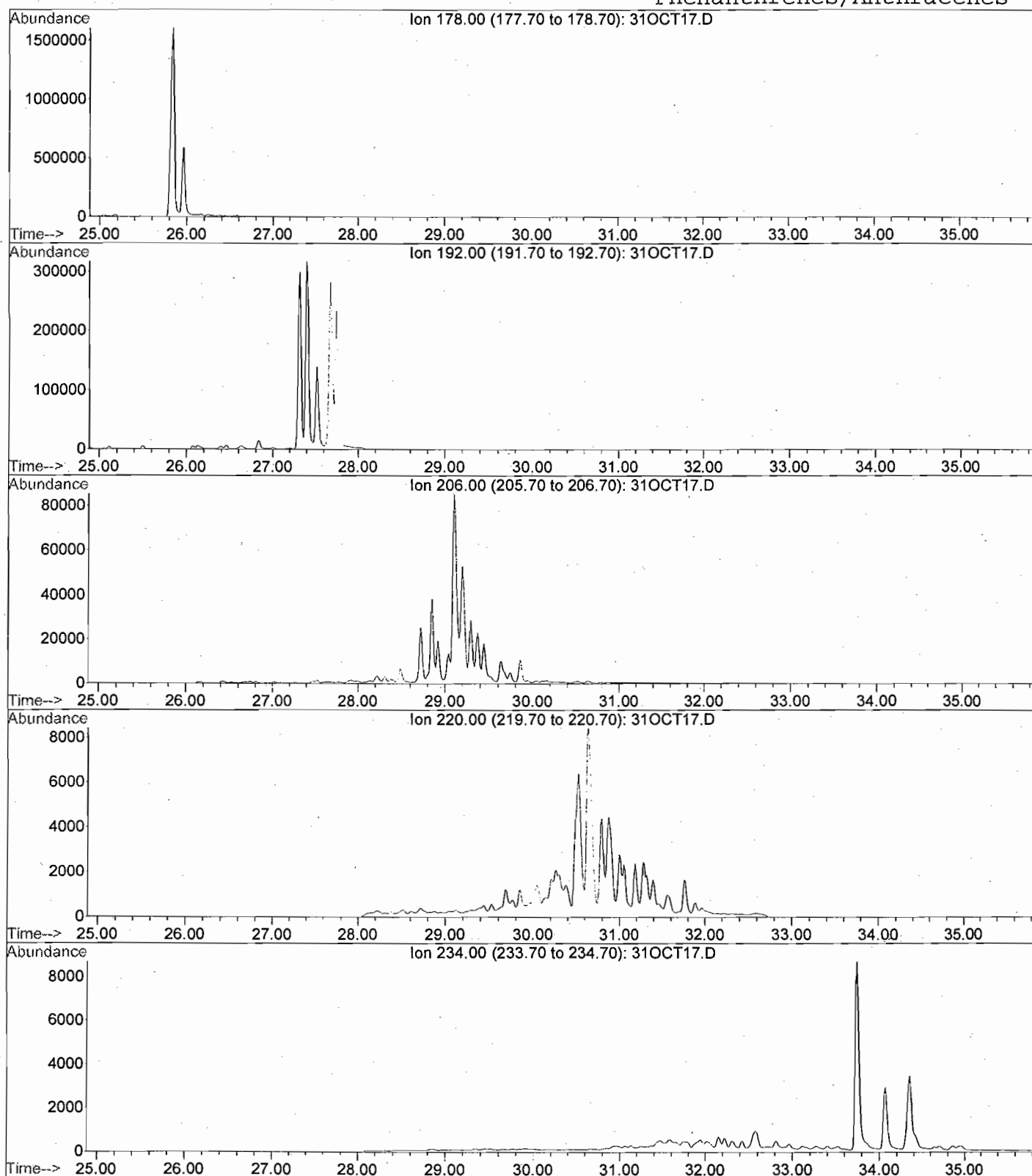
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Lab ID: HT031006-01
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Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluorenes



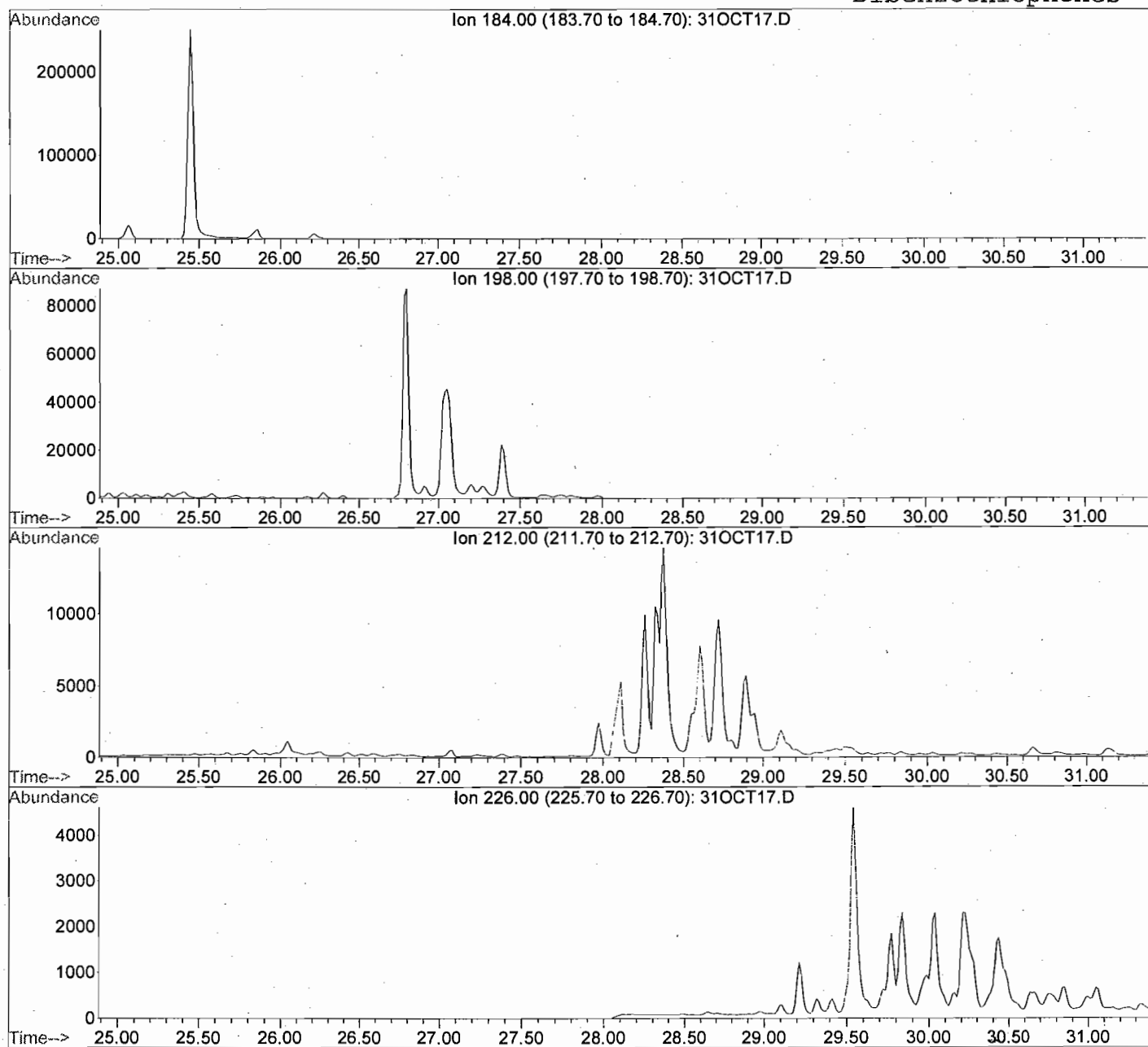
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Lab ID: HT031006-01
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Instrument: GC4-MS_59 Operator: MP

Phenanthrenes/Anthracenes



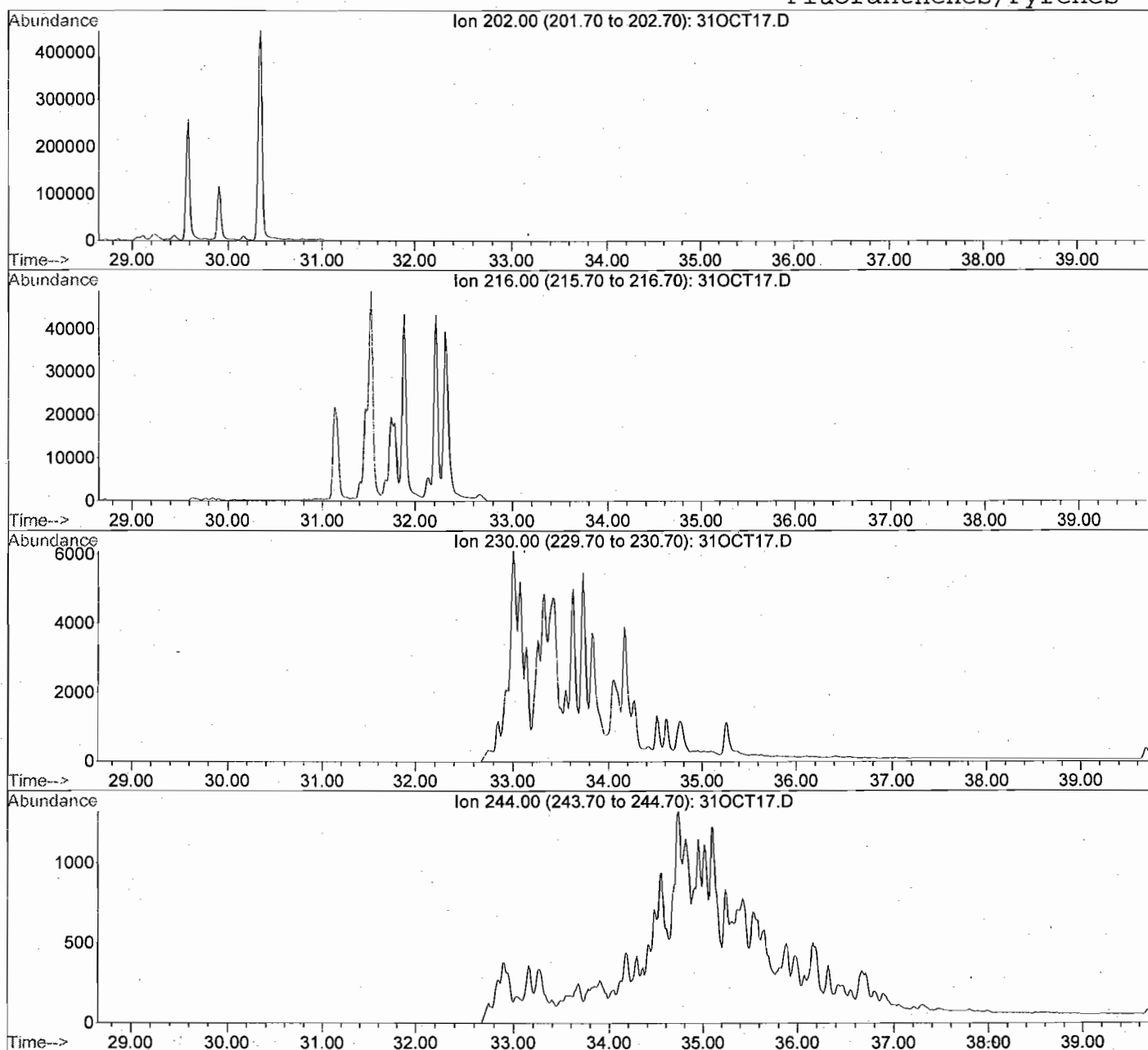
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Lab ID: HT031006-01
File: I:\4\DATA\031031\31OCT17.D
Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Dibenzothiophenes



Field ID: 0310103-001A
Lab ID: HT031006-01
File: I:\4\DATA\031031\31OCT17.D
Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluoranthenes/Pyrenes



Field ID: 0310103-001A

Lab ID: HT031006-01

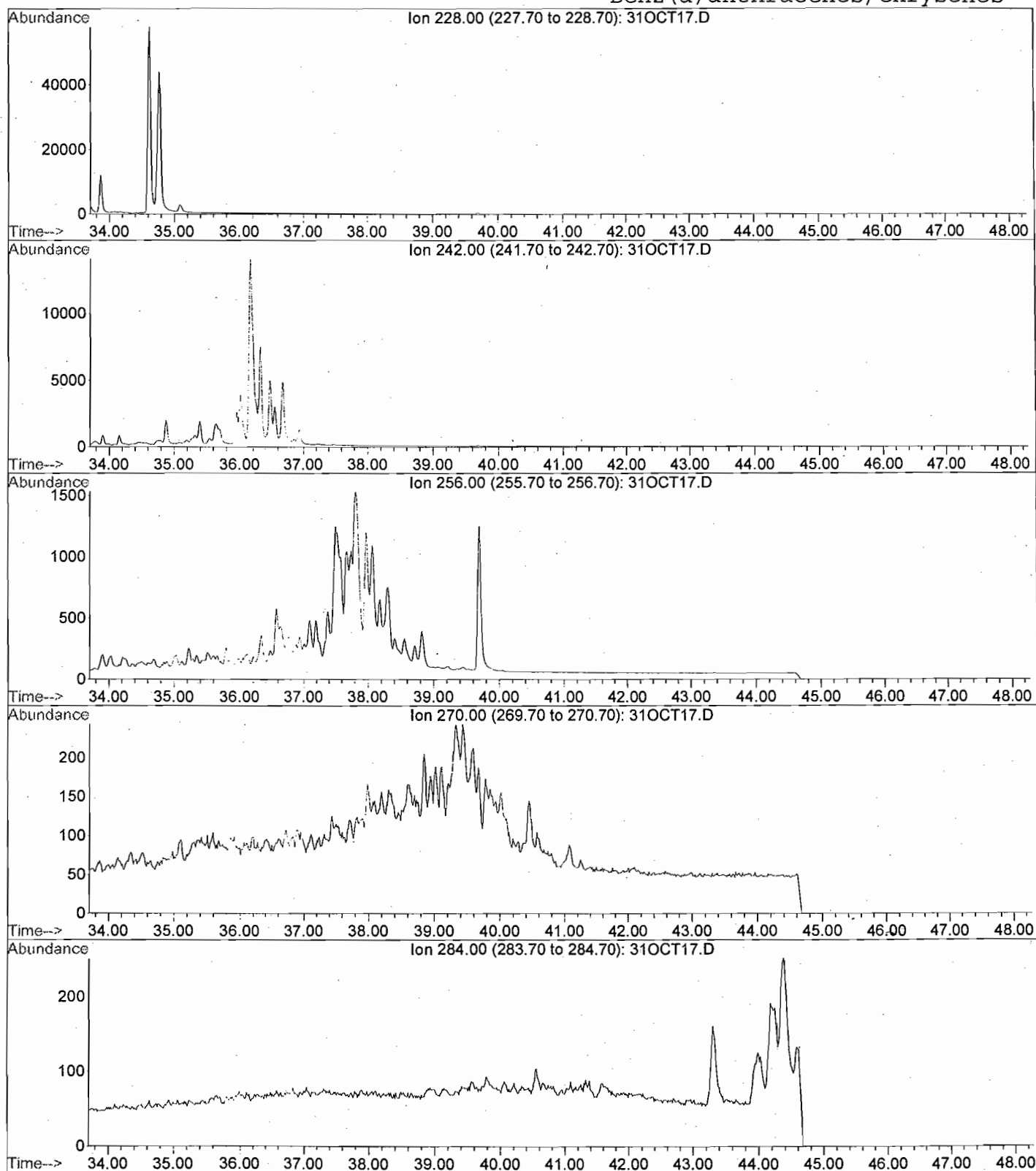
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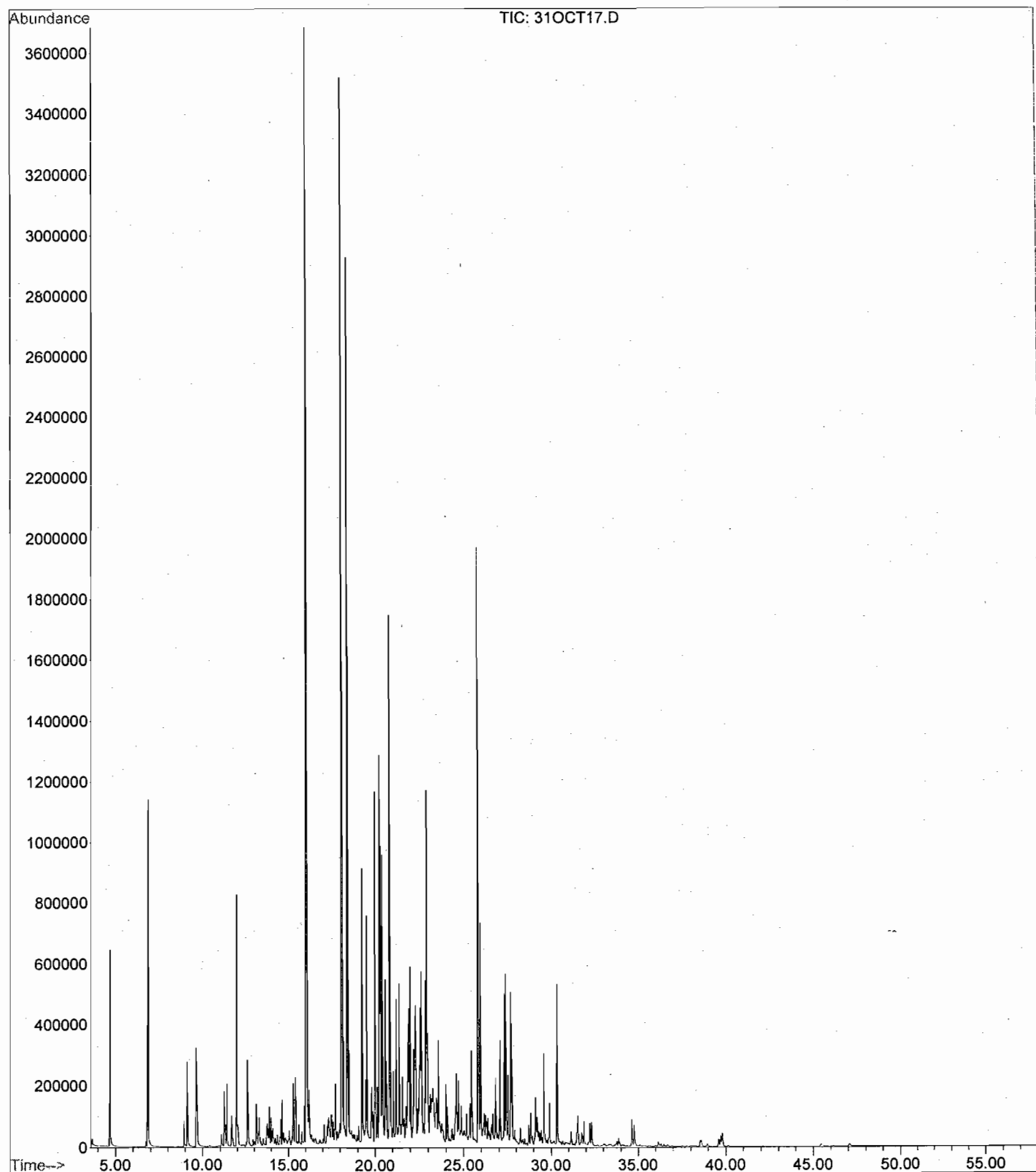
Instrument: GC4-MS_59

Operator: MP

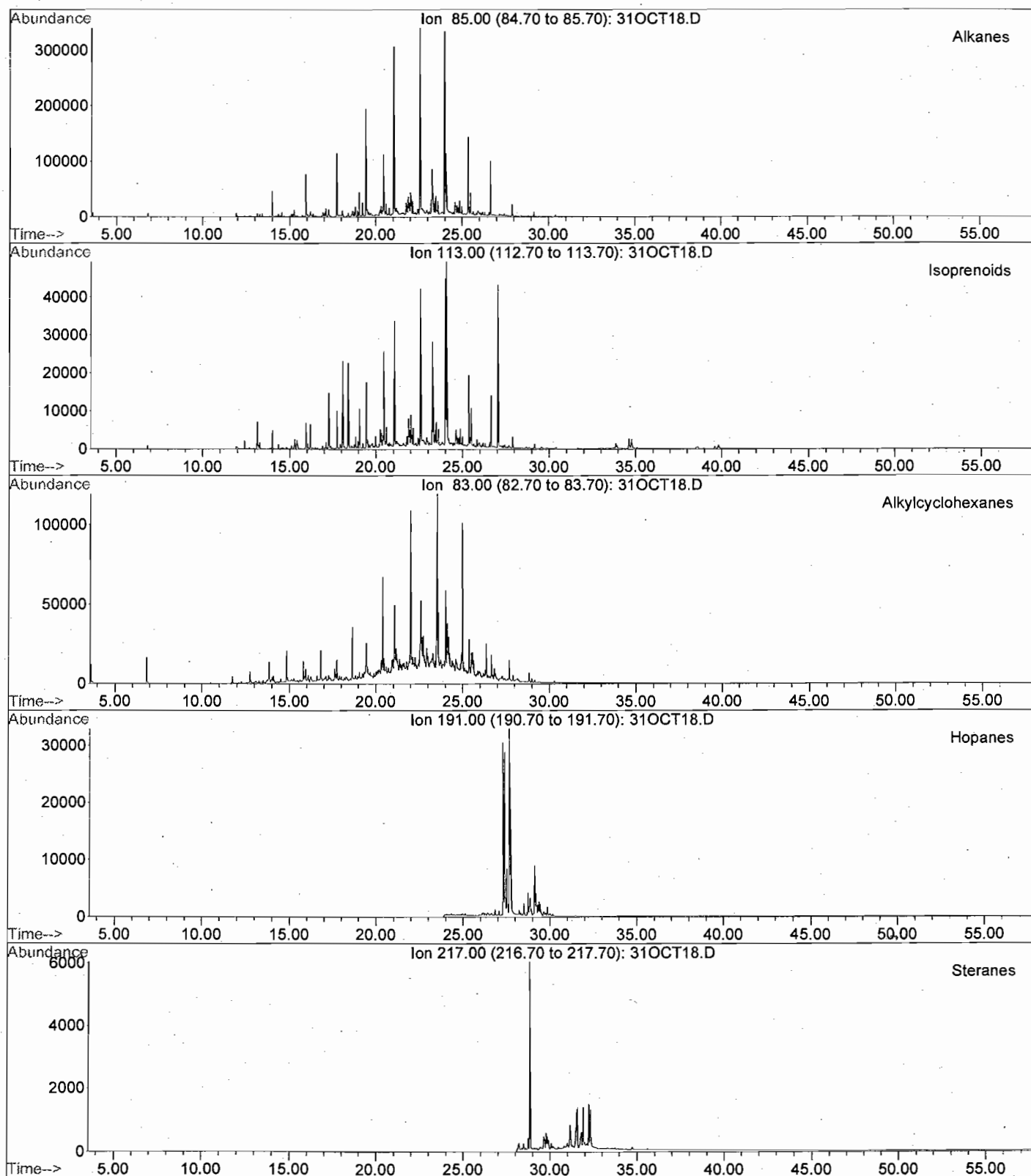
Benz (a) anthracenes/Chrysenes



Field ID: 0310103-001A
Lab ID: HT031006-01
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Instrument: GC4-MS_59 Operator: MP

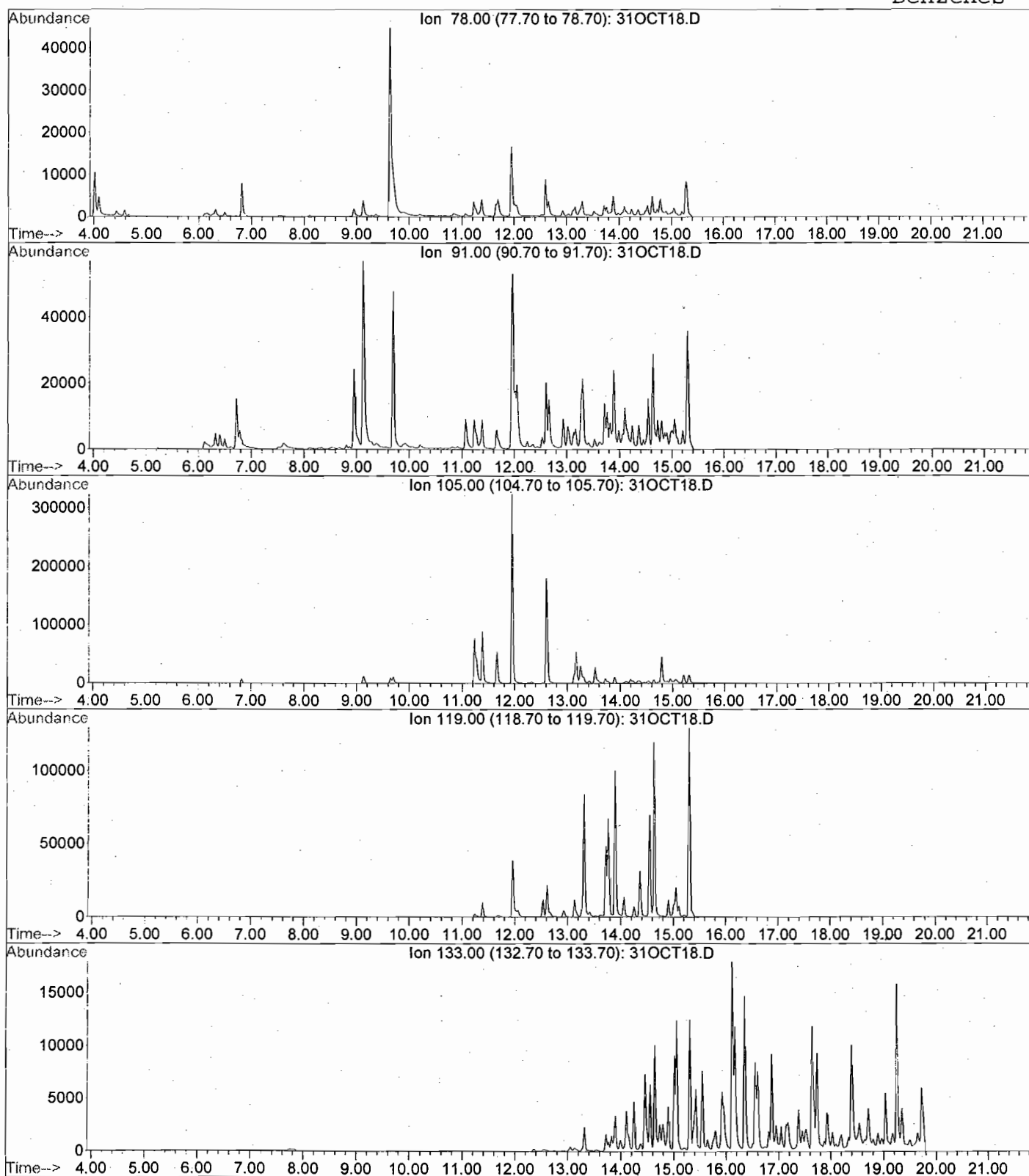


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Lab ID: HT031006-02
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Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP



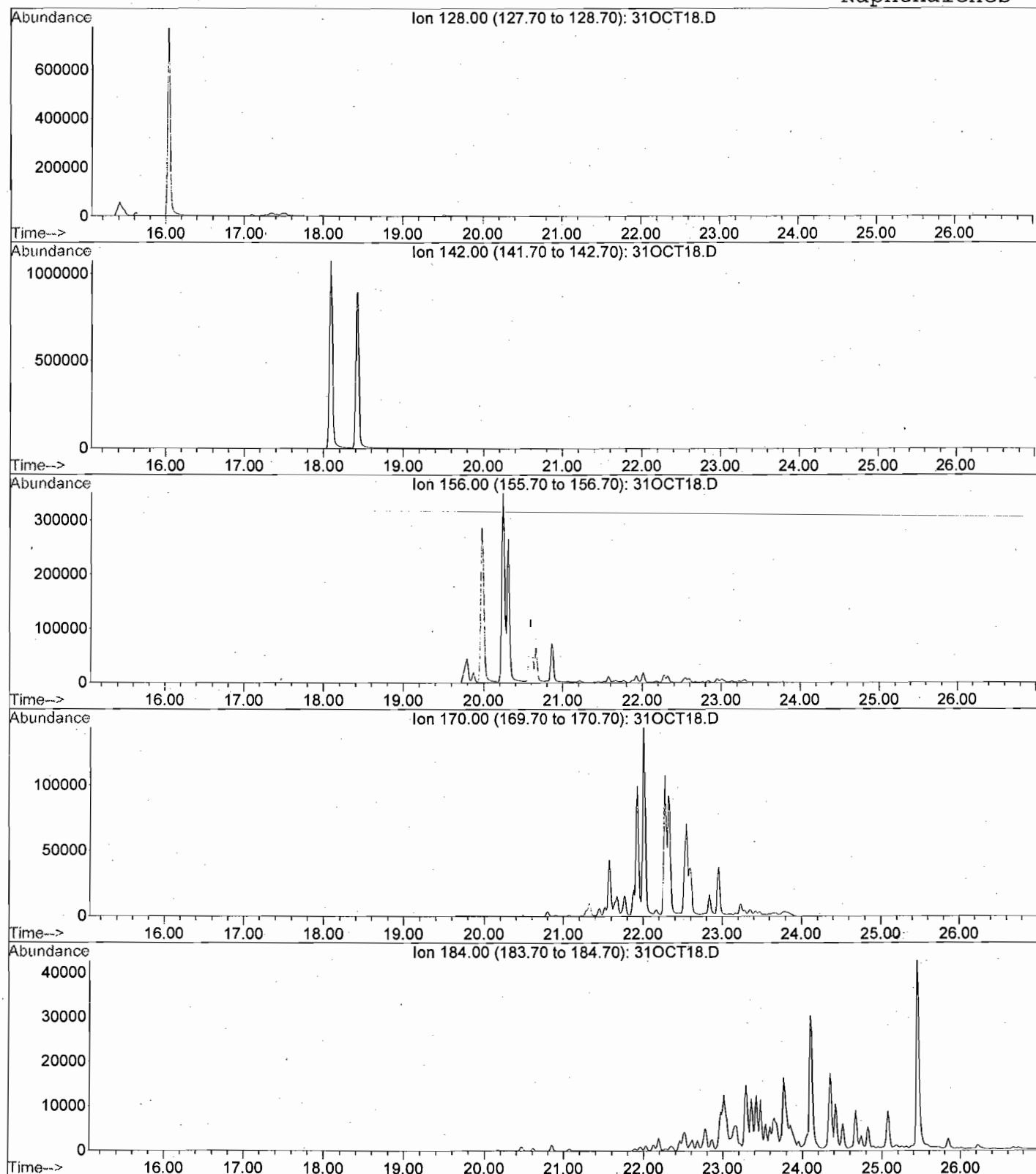
Field ID: 0310103-002A
Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Benzenes



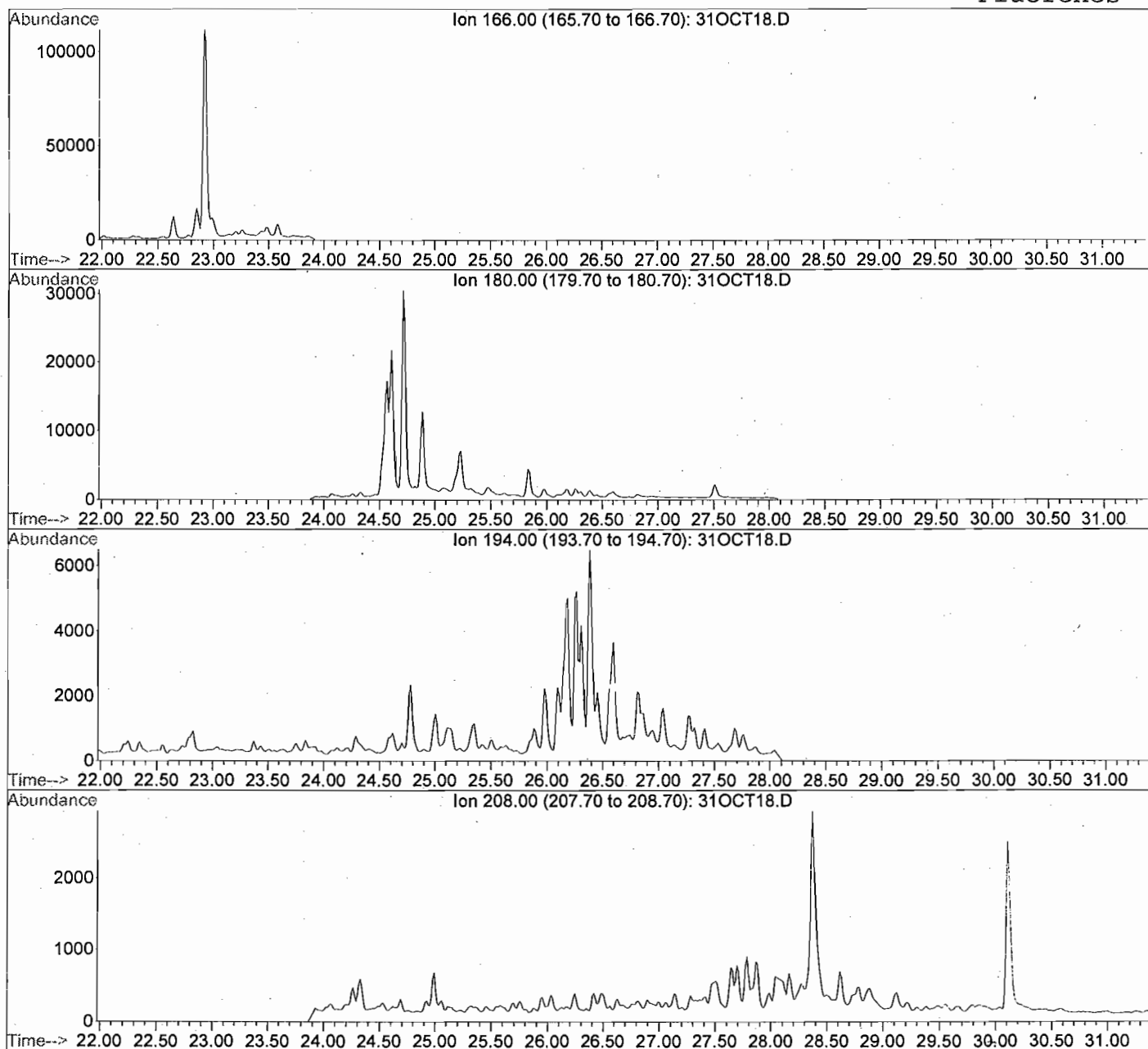
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Lab ID: HT031006-02
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Instrument: GC4-MS_59 Operator: MP

Naphthalenes



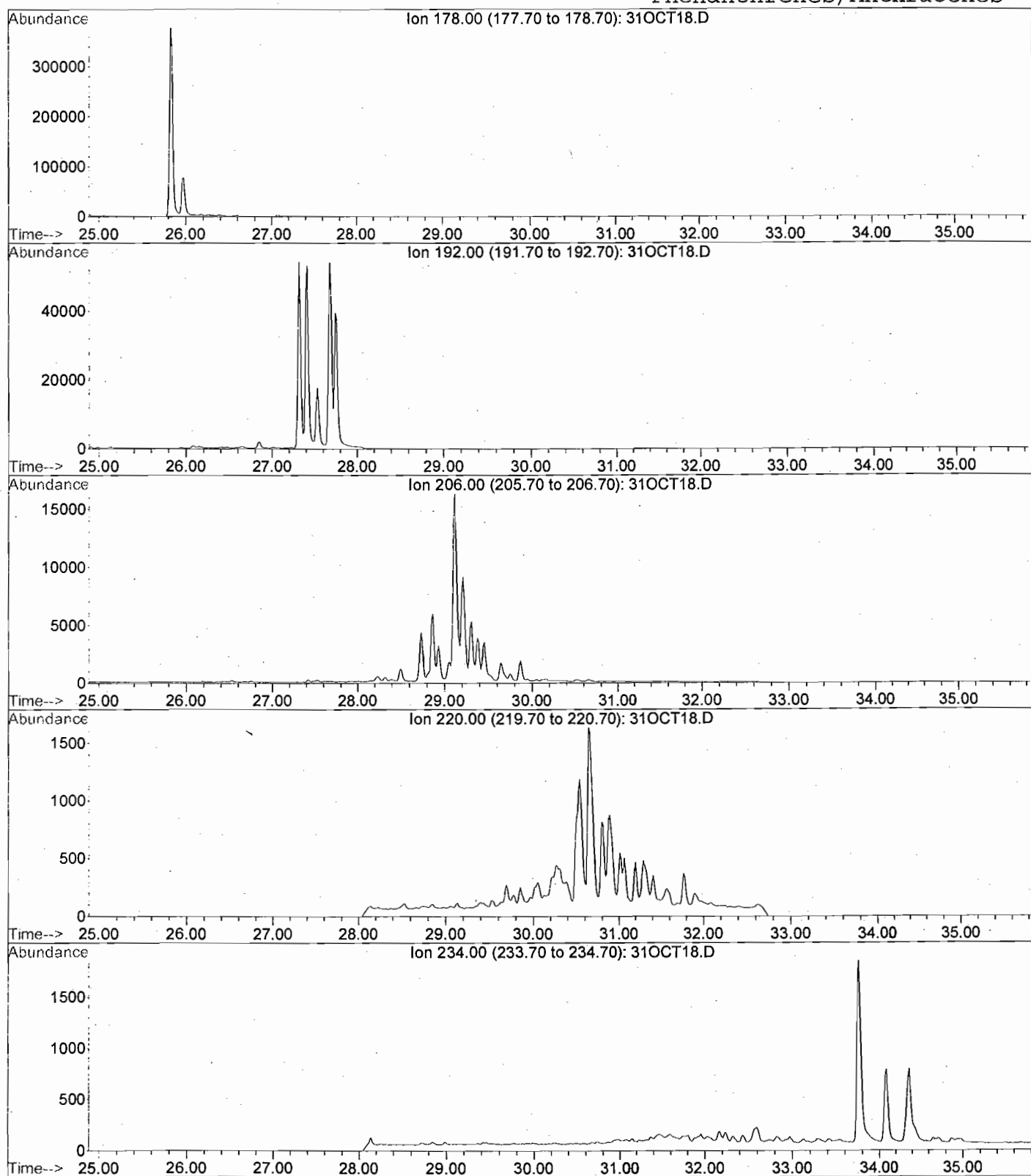
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Lab ID: HT031006-02
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Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluorenes



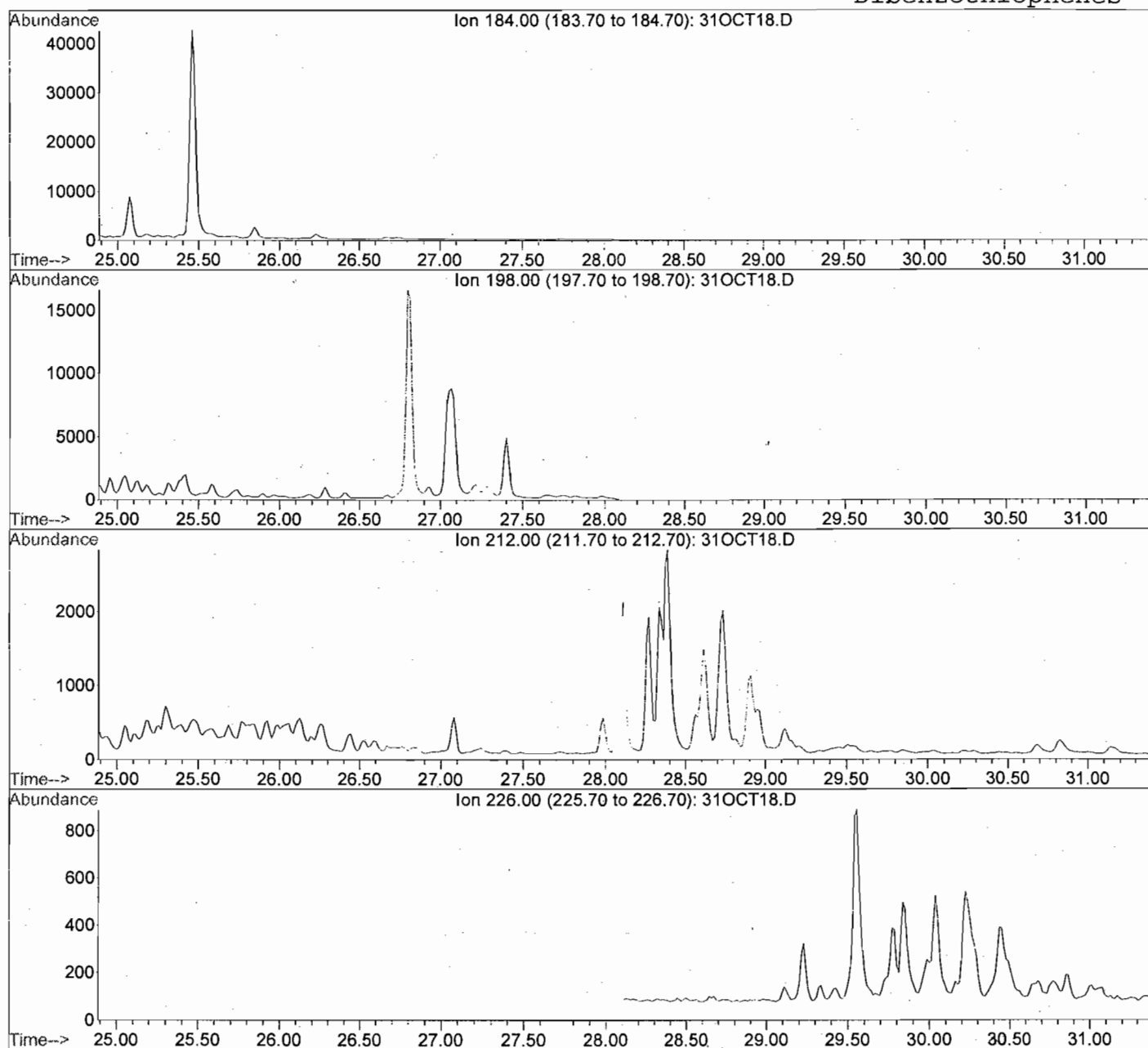
Field ID: 0310103-002A
Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Phenanthrenes/Anthracenes



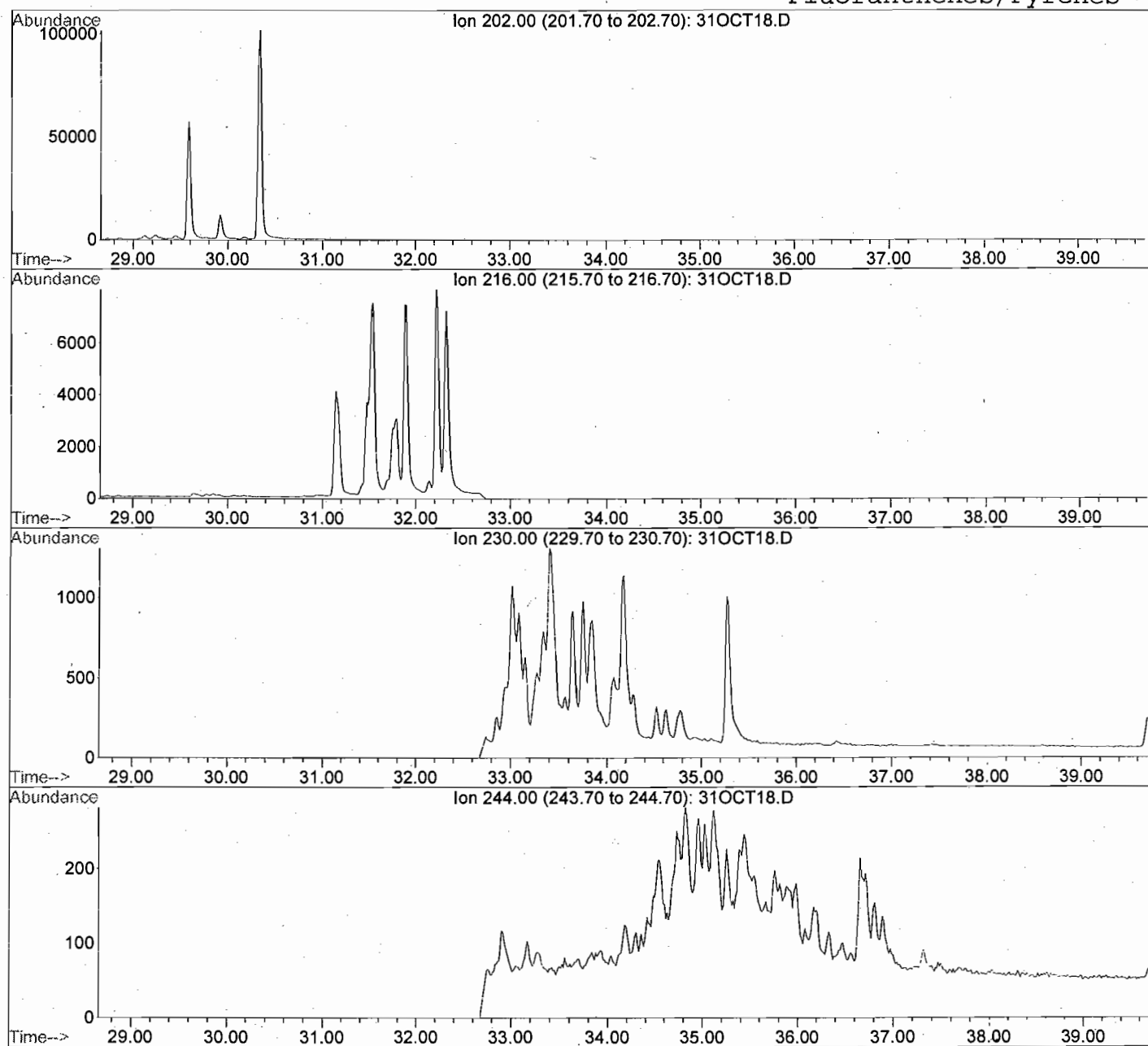
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Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Dibenzothiophenes



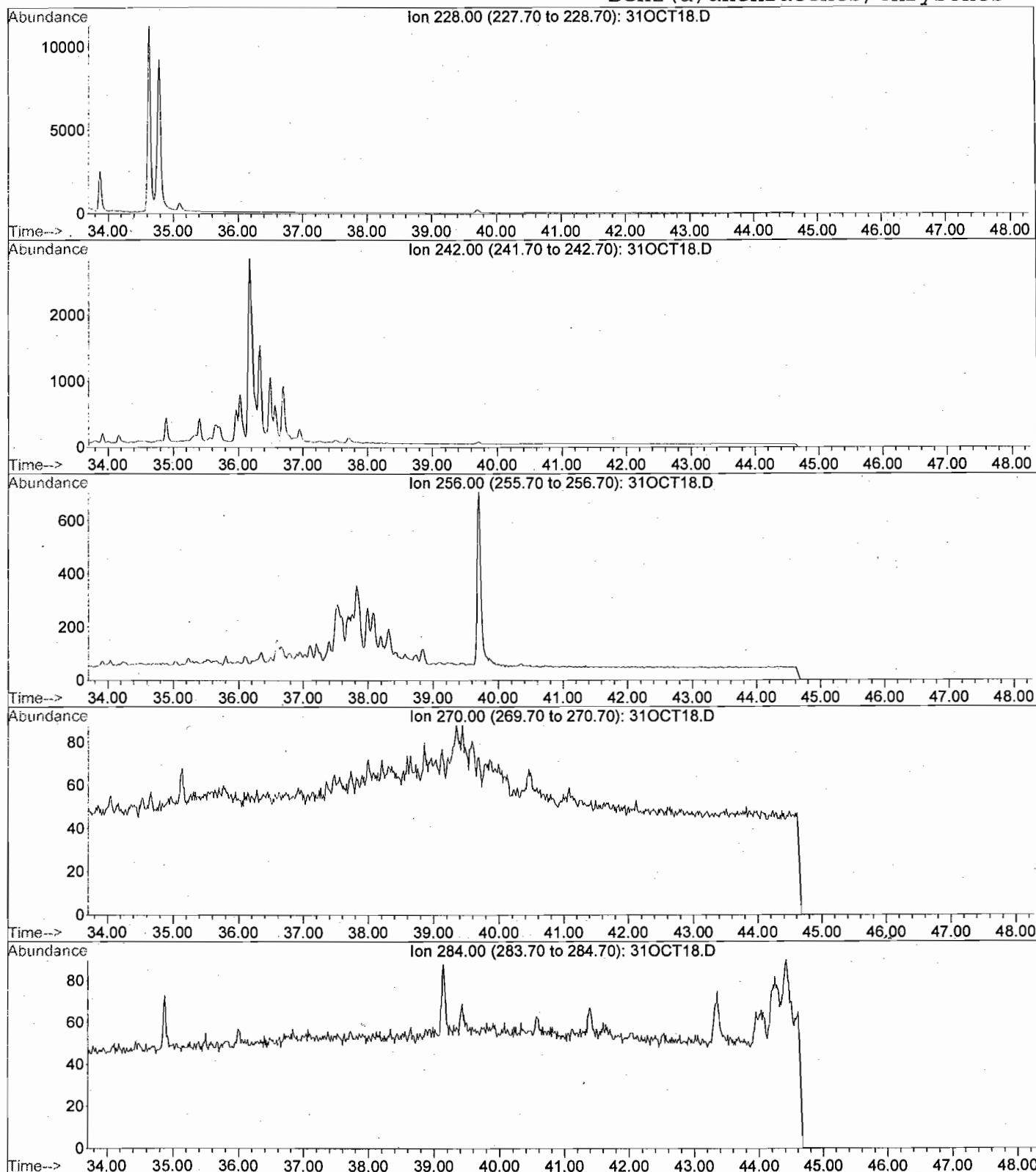
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Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Fluoranthenes/Pyrenes



Field ID: 0310103-002A
Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

Benz (a) anthracenes/Chrysenes

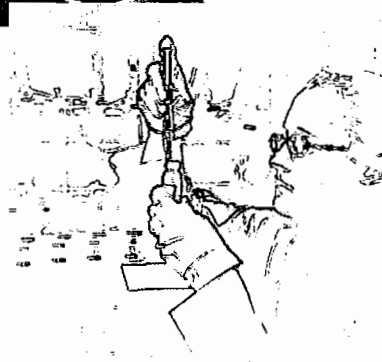
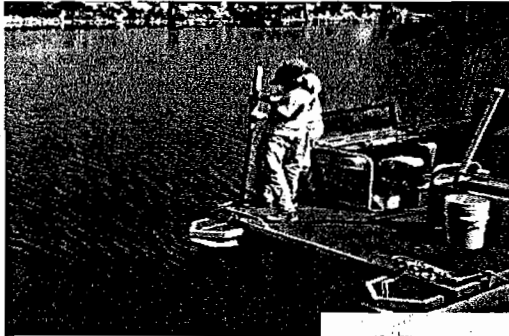


Appendix L
META Environmental Forensic Report
April 5, 2004

Environmental Forensic Report

Key-PSS

SDG: HT040308

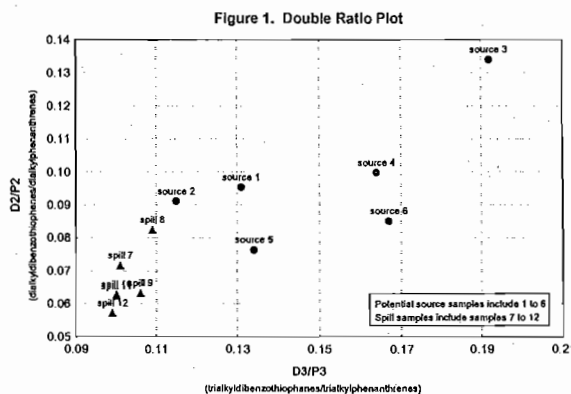


Report To:
H2M Labs
575 Broad Hollow Road
Melville, NY 11747

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

April 5, 2004



Identifying and allocating sources of pollutants in complex environments.

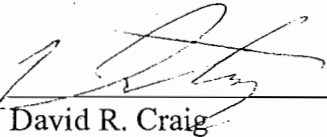
Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

Phone: 617-923-4662
Fax: 617-923-4610
e-Mail: meta@metaenv.com

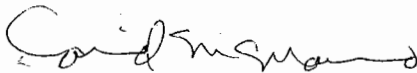
Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Director and Quality Assurance Officer, as verified by the following signatures.



David R. Craig
Laboratory Director, META Environmental, Inc.

4/5/04
Date



David M. Mauro
Quality Assurance Officer, META Environmental, Inc.

4/5/04
Date

Sample Delivery Group Narrative

Project: Key-PSS

Client: H2M Labs, Inc.
575 Broad Hollow Road
Melville, NY 11747-5076

Report Contact: Jennifer Aracri

Date of Receipt: 3/8/04

Sample Summary:

The samples received for this project are summarized in the attached sample login forms.

META Project Number: H09002-60

Chain of Custody

Samples were received in good condition. The internal temperatures of the shipment containers were as follows:

Sample received 3/8/2004 12.0°C

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page.

The disposal of samples and extracts will be authorized 1 month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100 mod.) and GC/MS (EPA 8270 mod.).

Results

Sample results were presented in summary forms (CLP Form 1 equivalent) which follow this narrative.

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." No value was reported above the calibration range. Undetected analytes were flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The samples were extracted 5 days after collection. All samples and extracts were stored at 4°C \pm 2°C prior to extraction and analysis. All extracts were analyzed within 40 days of sample preparation.

Blanks

No target analytes were found above the detection limits in the blanks.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards.

Surrogate Standards

Extraction surrogates were added to each sample prior to extraction. Surrogate recoveries were reported with the sample data. All surrogate compounds were recovered within acceptable QC limits (50%-120%).

Interpretation

Sample 0403256-001A

This sample contained pyrogenic and petrogenic substances (see definitions). The pyrogenic material is evidenced by the pattern of unsubstituted PAHs. The reduced concentrations of 1- and 2-ring aromatics indicates that this material has been subject to moderate weathering.

The petroleum eluted as an unresolved complex mixture (UCM or "hump") which eluted from approximately nonane (C9 - 9 minutes) to hexatriacontane (C36 - 41 minutes). Common products with these features include wide range distillates such as gas oil and some blended products such as #6 fuel oils. The lack of a normal alkane pattern and the alkane/isoprenoid ratios indicate that this material has been subject to severe weathering. These types of mixed materials are sometimes seen at MGP sites, but could have arisen from separate sources.

Sample 0403256-002A

This sample also contained pyrogenic and petrogenic substances. The presence of MAHs and the high concentration of naphthalene relative to other PAHs indicate that the pyrogenic material in this sample is relatively unweathered.

The petroleum eluted as a UCM similar in range and shape to that found in sample 0403256-001A.

Discussion

Both samples contained pyrogenic PAHs. The concentrations and ratios of PAHs in samples 0403256-001A and -002A are similar to some carburetted water gas (CWG) MGP tars in our archive and indicate that these samples contain tar from a relatively low temperature process. The variations in the diagnostic ratios (Table 1) between these samples may be indicative of separate sources, or could be related to variations in process conditions over time.

Similarly, the petrogenic portions of the two samples appear to be the same material as indicated by the C3D/C3PA ratios.

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

- 1 "Chemical Source Attribution at Former MGP Sites," EPRI Report 1000728, December 2000.

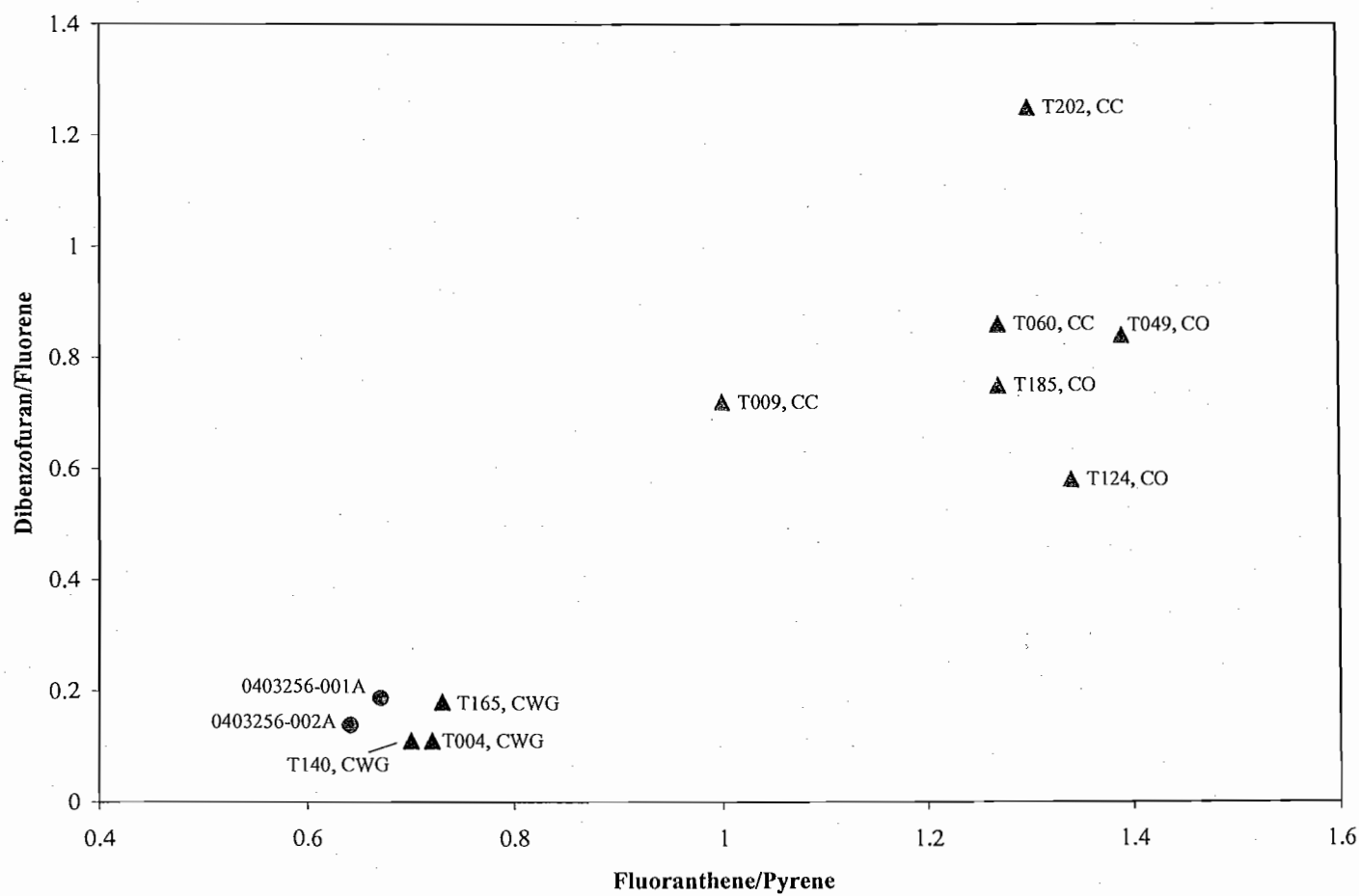
Table 1
Source and Weathering Ratios

Sample	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA
0403256-001A	0.67	0.19	0.03	0.07	1.86	0.67	0.42
0403256-002A	0.64	0.14	0.04	0.11	2.20	0.61	0.36

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	septadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes

Figure 1
Selected Source Ratios



TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CWG Carburetted Water Gas Tar
 ● Site Sample

Appendix A

Chains of Custody

META ENVIRONMENTAL SAMPLE RECEIPT

Lab ID	Field ID	Matrix	Analysis	Date Sampled	Date Received	Client/Project	Container/Storage	Comments/Logger
HT040308-01a,b	0403256-001A	Soil	4008	3/4/2004	3/8/2004	H09002-60	2 x4 oz. jars	
HT040308-02a,b	0403256-002A	Soil	4008	3/4/2004	3/8/2004	H09002-60	2 x4 oz. jars	

 Logger: B. Hyn

 Date: 03/08/04

 Review: [Signature]

 Date: 3/9/04

H2M LABS, INC.

575 Broad Hollow Road
Melville, NY 11747-5076
(631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
49 Clarendon Street

H2M Client : KEY-PSS

TEL: (617) 923-4662
FAX:

Watertown, Massachusetts 02472

Acct #:

05-Mar-04

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests
0403256-001A	Soil	3/4/2004 2:48:00 PM	4-OZJAR	
0403256-002A	Soil	3/4/2004 12:11:00 PM	4-OZJAR	

HT0403256-002A

8 LBS.

Priority
went out
3/5/04

Comments:

PLEASE ANALYZE FOR GC/FID FINGERPRINT WITH GC/MS FINGERPRINT CATEGORIZATION. \$675.00 PER SAMPLE. IF YOU HAVE ANY QUESTIONS PLEASE CALL SARAH BENVENUTO AT EXTENSION 1268. PLEASE RETURN COOLER AT YOUR EARLIEST CONVENIENCE. THANKS!

Relinquished by:

LS

Date/Time

3/5/04 1800

Received by:

in Hgn

Date/Time

03/05/04 11:30 C 12°C

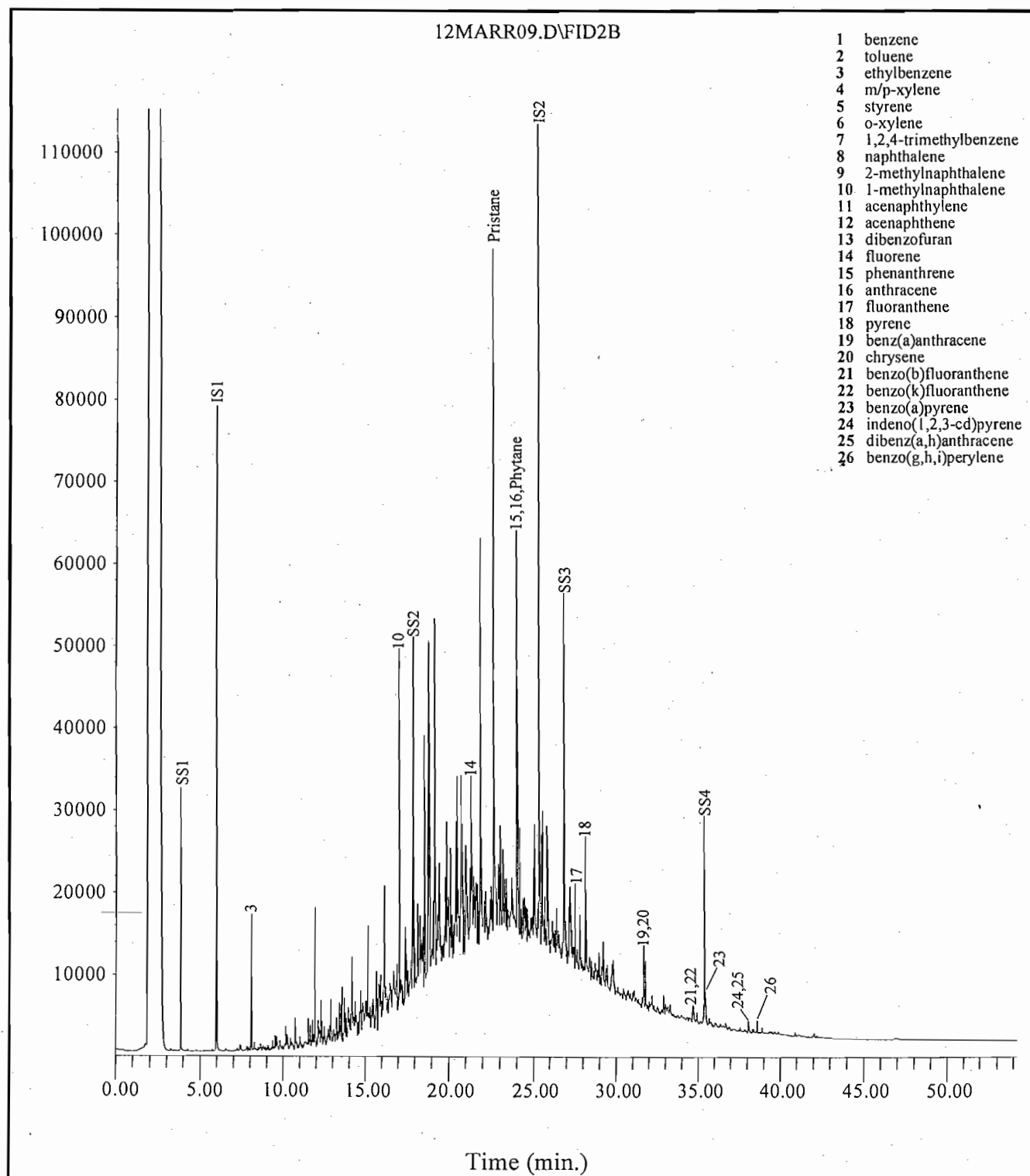
Relinquished by:

Received by:

Appendix B

GC/FID Fingerprints

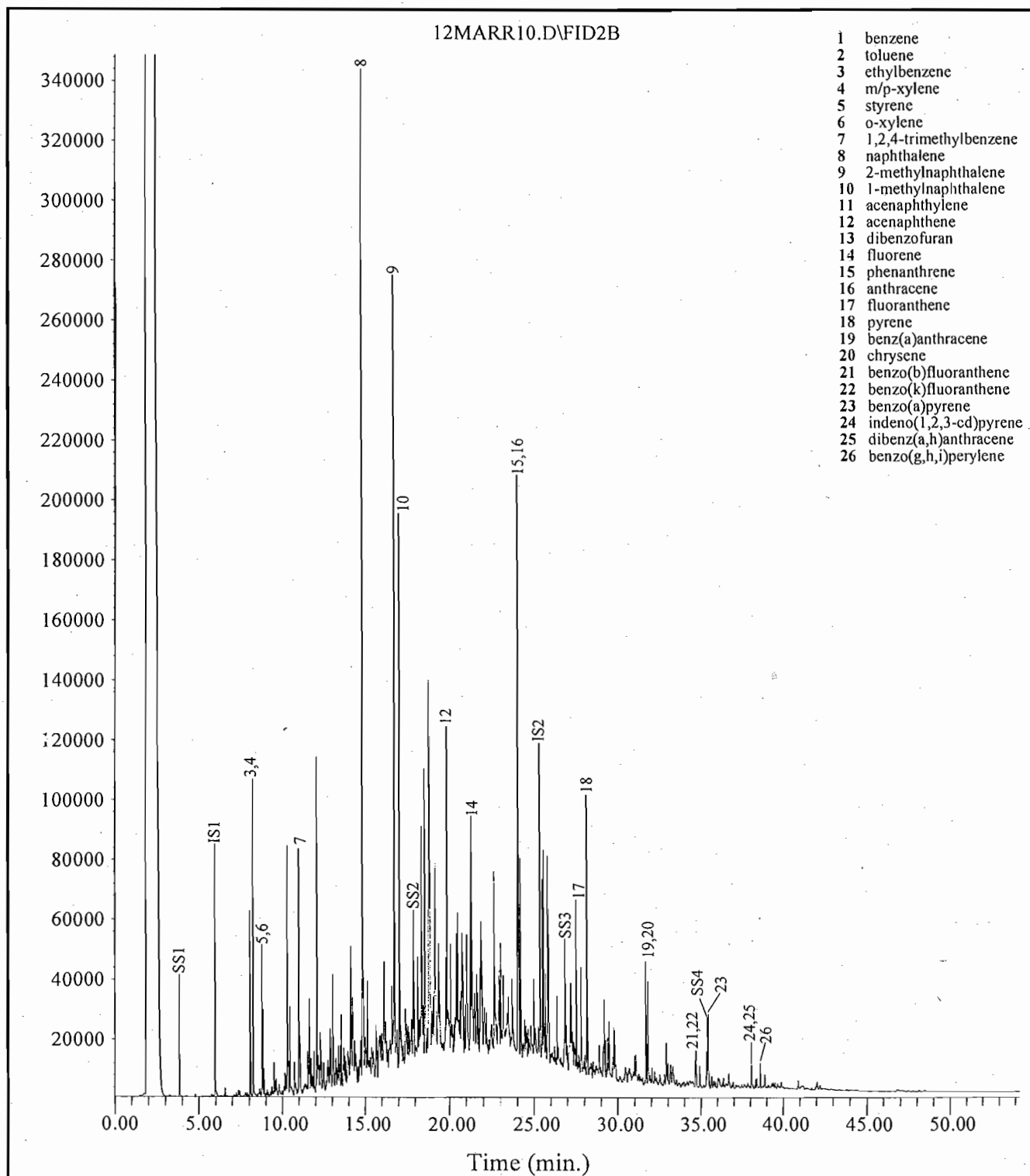
GC/FID Fingerprint



IS1 - 2,4-difluorotoluene
 IS2 - o-terphenyl
 SS1 - fluorobenzene
 SS2 - 2-fluorobiphenyl
 SS3 - 5 α -androstane
 SS4 - benzo(a)pyrene-d12

Field ID: 0403256-001A
 Laboratory ID: HT040308-01
 Method: METR4007P

GC/FID Fingerprint



IS1 - 2,4-difluorotoluene

IS2 - o-terphenyl

SS1 - fluorobenzene

SS2 - 2-fluorobiphenyl

SS3 - 5 α -androstane

SS4 - benzo(a)pyrene-d12

Field ID: 0403256-002A

Laboratory ID: HT040308-02

Method: METR4007P

Appendix C

Chemical Concentrations

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID:	0403256-001A	Preparation Method:	EPA3570
		Cleanup Method(s):	
Client:	H2M Labs	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	KEY-PSS	Matrix:	Soil
		Preservation:	None
Lab ID:	HT040308-01	Decanted:	No
File ID:	23MAR15.D		
Date Sampled:	3/4/2004	Sample Size:	1.995 g
Date Received:	3/8/2004	%Solid:	95%
Date Prepared:	3/9/2004	Extract Volume:	1.8 mL
Date Cleanup:		Prep DF:	1
Date Analyzed:	24 Mar 2004 1:32 am	Analysis DF:	1
Instrument:	GC2-MS_59	Injection Volume:	0.001 mL
Operator:	DB	Batch QC:	HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
----------	------------------------	---	-------------	--------------	----------

PAH COMPOUNDS:

Benzene		U	0.10	0.05	
Toluene		U	0.10	0.05	
Ethylbenzene	8.25		0.10	0.05	
m/p-Xylenes		U	0.10	0.05	
Styrene	0.31		0.10	0.05	
o-Xylene	0.10		0.10	0.05	
1,2,4-Trimethylbenzene	0.37		0.10	0.05	
Naphthalene	0.41		0.10	0.05	
2-Methylnaphthalene	0.13		0.10	0.05	
1-Methylnaphthalene	17.7		0.10	0.05	
Acenaphthylene	1.45		0.10	0.05	
Acenaphthene	5.40		0.10	0.05	
Dibenzofuran	1.06		0.10	0.05	
Fluorene	5.68		0.10	0.05	
Phenanthrene	15.7		0.10	0.05	
Anthracene	4.73		0.10	0.05	
Fluoranthene	4.39		0.10	0.05	
Pyrene	6.55		0.10	0.05	
Benz[a]anthracene	2.79		0.10	0.05	
Chrysene	2.95		0.10	0.05	
Benzo[b]fluoranthene	0.68		0.10	0.05	
Benzo[k]fluoranthene	1.07		0.10	0.05	
Benzo(e)pyrene	0.97		0.10	0.05	
Benzo[a]pyrene	1.71		0.10	0.05	
Perylene	0.26		0.10	0.05	
Indeno[1,2,3-cd]pyrene	0.46		0.10	0.05	
Dibenz[a,h]anthracene	0.16		0.10	0.05	
Benzo[g,h,i]perylene	0.69		0.10	0.05	

ALKYLATED PAHs:

C0 - Benzene		U	0.10	0.05	
C1 - Benzene	0.05	J	0.10	0.05	
C2 - Benzene	15.4		0.10	0.05	
C3 - Benzene	5.24		0.10	0.05	
C4 - Benzene	16.9		0.10	0.05	
C5 - Benzene	9.69		0.10	0.05	
C0 - Naphthalene	0.41		0.10	0.05	
C1 - Naphthalene	11.5		0.10	0.05	
C2 - Naphthalene	30.8		0.10	0.05	
C3 - Naphthalene	21.6		0.10	0.05	
C4 - Naphthalene	9.59		0.10	0.05	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID:	0403256-001A	Preparation Method:	EPA3570
		Cleanup Method(s):	
Client:	H2M Labs	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	KEY-PSS	Matrix:	Soil
		Preservation:	None
Lab ID:	HT040308-01	Decanted:	No
File ID:	23MAR15.D		
Date Sampled:	3/4/2004	Sample Size:	1.995 g
Date Received:	3/8/2004	%Solid:	95%
Date Prepared:	3/9/2004	Extract Volume:	1.8 mL
Date Cleanup:		Prep DF:	1
Date Analyzed:	24 Mar 2004 1:32 am	Analysis DF:	1
Instrument:	GC2-MS_59	Injection Volume:	0.001 mL
Operator:	DB	Batch QC:	HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0 - Fluorene	5.68		0.10	0.05	
C1 - Fluorene	7.38		0.10	0.05	
C2 - Fluorene	4.58		0.10	0.05	
C3 - Fluorene	2.47		0.10	0.05	
C0 - Phenanthrene/Anthracene	20.5		0.10	0.05	
C1 - Phenanthrene/Anthracene	15.9		0.10	0.05	
C2 - Phenanthrene/Anthracene	7.52		0.10	0.05	
C3 - Phenanthrene/Anthracene	2.42		0.10	0.05	
C4 - Phenanthrene/Anthracene	0.55		0.10	0.05	
C0 - Dibenzo(ghi)perylene	2.09		0.10	0.05	
C1 - Dibenzo(ghi)perylene	3.20		0.10	0.05	
C2 - Dibenzo(ghi)perylene	3.16		0.10	0.05	
C3 - Dibenzo(ghi)perylene	1.61		0.10	0.05	
C0 - Fluoranthene/Pyrene	13.3		0.10	0.05	
C1 - Fluoranthene/Pyrene	6.16		0.10	0.05	
C2 - Fluoranthene/Pyrene	2.07		0.10	0.05	
C3 - Fluoranthene/Pyrene	0.58		0.10	0.05	
C0 - Benz(a)anthracene/Chrysene	5.63		0.10	0.05	
C1 - Benz(a)anthracene/Chrysene	2.07		0.10	0.05	
C2 - Benz(a)anthracene/Chrysene	0.66		0.10	0.05	
C3 - Benz(a)anthracene/Chrysene	0.16		0.10	0.05	
C4 - Benz(a)anthracene/Chrysene	0.10		0.10	0.05	

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	72%	50%	150%
2-Fluorobiphenyl	101%	50%	120%
5 α -Androstane	99%	50%	120%
Benzo(a)pyrene-d12	71%	50%	120%

Qualifiers:

B Analyte detected in the blank

D Analyte reported from a diluted extract

U Undetected above the detection limit

J Estimated value detected between the reporting and detection limits

E Estimated value detected above calibration range

RL Reporting limit is the sample equivalent of the lowest linear calibration concentration

EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0403256-002A

Preparation Method: EPA3570

Cleanup Method(s):

 Client: H2M Labs
 Project: KEY-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

Matrix: Soil

Preservation: None

Decanted: No

 Lab ID: HT040308-02
 File ID: 23MAR18.D

 Date Sampled: 3/4/2004
 Date Received: 3/8/2004
 Date Prepared: 3/9/2004
 Date Cleanup:
 Date Analyzed: 24 Mar 2004 5:05 am
 Instrument: GC2-MS_59
 Operator: DB

 Sample Size: 2.086 g
 %Solid: 90%
 Extract Volume: 1.8 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL

Batch QC: HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene		U	0.10	0.05	
Toluene	0.18		0.10	0.05	
Ethylbenzene	24.8		0.10	0.05	
m/p-Xylenes	44.1		0.10	0.05	
Styrene	1.65		0.10	0.05	
o-Xylene	21.0		0.10	0.05	
1,2,4-Trimethylbenzene	28.3		0.10	0.05	
Naphthalene	131	D	0.10	0.05	
2-Methylnaphthalene	105	D	0.10	0.05	
1-Methylnaphthalene	65.3		0.10	0.05	
Acenaphthylene	6.06		0.10	0.05	
Acenaphthene	33.0		0.10	0.05	
Dibenzofuran	3.25		0.10	0.05	
Fluorene	23.5		0.10	0.05	
Phenanthrene	68.9		0.10	0.05	
Anthracene	22.0		0.10	0.05	
Fluoranthene	23.6		0.10	0.05	
Pyrene	36.8		0.10	0.05	
Benz[a]anthracene	17.1		0.10	0.05	
Chrysene	17.8		0.10	0.05	
Benzo[b]fluoranthene	4.13		0.10	0.05	
Benzo[k]fluoranthene	6.77		0.10	0.05	
Benzo(e)pyrene	5.79		0.10	0.05	
Benzo[a]pyrene	11.1		0.10	0.05	
Perylene	1.53		0.10	0.05	
Indeno[1,2,3-cd]pyrene	3.03		0.10	0.05	
Dibenz[a,h]anthracene	1.26		0.10	0.05	
Benzo[g,h,i]perylene	4.33		0.10	0.05	

ALKYLATED PAHs:

C0 - Benzene		U	0.10	0.05	
C1 - Benzene	0.25		0.10	0.05	
C2 - Benzene	142		0.10	0.05	
C3 - Benzene	170		0.10	0.05	
C4 - Benzene	71.3		0.10	0.05	
C5 - Benzene	24.9		0.10	0.05	
C0 - Naphthalene	131	D	0.10	0.05	
C1 - Naphthalene	113	D	0.10	0.05	
C2 - Naphthalene	94.7		0.10	0.05	
C3 - Naphthalene	42.4		0.10	0.05	
C4 - Naphthalene	14.9		0.10	0.05	

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: 0403256-002A

Preparation Method: EPA3570

Cleanup Method(s):

Client: H2M Labs
Project: KEY-PSS

Analysis Method: GC/MS (EPA 8270 Mod.)

Matrix: Soil

Preservation: None

Decanted: No

Lab ID: HT040308-02

File ID: 23MAR18.D

Date Sampled: 3/4/2004

Sample Size: 2.086 g

Date Received: 3/8/2004

%Solid: 90%

Date Prepared: 3/9/2004

Extract Volume: 1.8 mL

Date Cleanup:

Prep DF: 1

Date Analyzed: 24 Mar 2004 5:05 am

Analysis DF: 1

Instrument: GC2-MS_59

Injection Volume: 0.001 mL

Operator: DB

Batch QC: HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0 - Fluorene	23.5		0.10	0.05	
C1 - Fluorene	32.1		0.10	0.05	
C2 - Fluorene	12.3		0.10	0.05	
C3 - Fluorene	4.29		0.10	0.05	
C0 - Phenanthrene/Anthracene	91.7		0.10	0.05	
C1 - Phenanthrene/Anthracene	67.4		0.10	0.05	
C2 - Phenanthrene/Anthracene	25.4		0.10	0.05	
C3 - Phenanthrene/Anthracene	5.79		0.10	0.05	
C4 - Phenanthrene/Anthracene	1.05		0.10	0.05	
C0 - Dibenzothiophene	8.97		0.10	0.05	
C1 - Dibenzothiophene	11.7		0.10	0.05	
C2 - Dibenzothiophene	9.13		0.10	0.05	
C3 - Dibenzothiophene	3.51		0.10	0.05	
C0 - Fluoranthene/Pyrene	76.5		0.10	0.05	
C1 - Fluoranthene/Pyrene	41.3		0.10	0.05	
C2 - Fluoranthene/Pyrene	12.2		0.10	0.05	
C3 - Fluoranthene/Pyrene	2.48		0.10	0.05	
C0 - Benz(a)anthracene/Chrysene	33.9		0.10	0.05	
C1 - Benz(a)anthracene/Chrysene	13.4		0.10	0.05	
C2 - Benz(a)anthracene/Chrysene	3.68		0.10	0.05	
C3 - Benz(a)anthracene/Chrysene	0.70		0.10	0.05	
C4 - Benz(a)anthracene/Chrysene	0.20		0.10	0.05	
EXTRACTION SURROGATE COMPOUNDS:					
	%R		Min	Max	
Fluorobenzene	78%		50%	150%	
2-Fluorobiphenyl	81%		50%	120%	
5a-Androstane	87%		50%	120%	
Benzo(a)pyrene-d12	70%		50%	120%	

Qualifiers:

B	Analyte detected in the blank
D	Analyte reported from a diluted extract
U	Undetected above the detection limit
J	Estimated value detected between the reporting and detection limits
E	Estimated value detected above calibration range
RL	Reporting limit is the sample equivalent of the lowest linear calibration concentration
EDL	Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID:	Soil Blank	Preparation Method:	EPA3570
		Cleanup Method(s):	
Client:	H2M Labs	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	KEY-PSS	Matrix:	Soil
		Preservation:	None
Lab ID:	HT040309-SB	Decanted:	No
File ID:	23MAR05.D		
Date Sampled:		Sample Size:	2 g
Date Received:		%Solid:	100%
Date Prepared:	3/9/2004	Extract Volume:	1.3 mL
Date Cleanup:		Prep DF:	1
Date Analyzed:	23 Mar 2004 2:45 pm	Analysis DF:	1
Instrument:	GC2-MS_59	Injection Volume:	0.001 mL
Operator:	DB	Batch QC:	HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
----------	------------------------	---	-------------	--------------	----------

PAH COMPOUNDS:

Benzene	U	0.07	0.03
Toluene	U	0.07	0.03
Ethylbenzene	U	0.07	0.03
m/p-Xylenes	U	0.07	0.03
Styrene	U	0.07	0.03
o-Xylene	U	0.07	0.03
1,2,4-Trimethylbenzene	U	0.07	0.03
Naphthalene	U	0.07	0.03
2-Methylnaphthalene	U	0.07	0.03
1-Methylnaphthalene	U	0.07	0.03
Acenaphthylene	U	0.07	0.03
Acenaphthene	U	0.07	0.03
Dibenzofuran	U	0.07	0.03
Fluorene	U	0.07	0.03
Phenanthrene	U	0.07	0.03
Anthracene	U	0.07	0.03
Fluoranthene	U	0.07	0.03
Pyrene	U	0.07	0.03
Benz[a]anthracene	U	0.07	0.03
Chrysene	U	0.07	0.03
Benzo[b]fluoranthene	U	0.07	0.03
Benzo[k]fluoranthene	U	0.07	0.03
Benzo(e)pyrene	U	0.07	0.03
Benzo[a]pyrene	U	0.07	0.03
Perylene	U	0.07	0.03
Indeno[1,2,3-cd]pyrene	U	0.07	0.03
Dibenz[a,h]anthracene	U	0.07	0.03
Benzo[g,h,i]perylene	U	0.07	0.03

ALKYLATED PAHs:

C0 - Benzene	U	0.07	0.03
C1 - Benzene	U	0.07	0.03
C2 - Benzene	U	0.07	0.03
C3 - Benzene	U	0.07	0.03
C4 - Benzene	U	0.07	0.03
C5 - Benzene	U	0.07	0.03
C0 - Naphthalene	U	0.07	0.03
C1 - Naphthalene	U	0.07	0.03
C2 - Naphthalene	U	0.07	0.03
C3 - Naphthalene	U	0.07	0.03
C4 - Naphthalene	U	0.07	0.03

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID:	Soil Blank	Preparation Method:	EPA3570
		Cleanup Method(s):	
Client:	H2M Labs	Analysis Method:	GC/MS (EPA 8270 Mod.)
Project:	KEY-PSS	Matrix:	Soil
		Preservation:	None
Lab ID:	HT040309-SB	Decanted:	No
File ID:	23MAR05.D		
Date Sampled:		Sample Size:	2 g
Date Received:		%Solid:	100%
Date Prepared:	3/9/2004	Extract Volume:	1.3 mL
Date Cleanup:		Prep DF:	1
Date Analyzed:	23 Mar 2004 2:45 pm	Analysis DF:	1
Instrument:	GC2-MS_59	Injection Volume:	0.001 mL
Operator:	DB	Batch QC:	HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
C0 - Fluorene		U	0.07	0.03	
C1 - Fluorene		U	0.07	0.03	
C2 - Fluorene		U	0.07	0.03	
C3 - Fluorene		U	0.07	0.03	
C0 - Phenanthrene/Anthracene		U	0.07	0.03	
C1 - Phenanthrene/Anthracene		U	0.07	0.03	
C2 - Phenanthrene/Anthracene		U	0.07	0.03	
C3 - Phenanthrene/Anthracene		U	0.07	0.03	
C4 - Phenanthrene/Anthracene		U	0.07	0.03	
C0 - Dibenzothiophene		U	0.07	0.03	
C1 - Dibenzothiophene		U	0.07	0.03	
C2 - Dibenzothiophene		U	0.07	0.03	
C3 - Dibenzothiophene		U	0.07	0.03	
C0 - Fluoranthene/Pyrene		U	0.07	0.03	
C1 - Fluoranthene/Pyrene		U	0.07	0.03	
C2 - Fluoranthene/Pyrene		U	0.07	0.03	
C3 - Fluoranthene/Pyrene		U	0.07	0.03	
C0 - Benz(a)anthracene/Chrysene		U	0.07	0.03	
C1 - Benz(a)anthracene/Chrysene		U	0.07	0.03	
C2 - Benz(a)anthracene/Chrysene		U	0.07	0.03	
C3 - Benz(a)anthracene/Chrysene		U	0.07	0.03	
C4 - Benz(a)anthracene/Chrysene		U	0.07	0.03	

EXTRACTION SURROGATE COMPOUNDS:	%R	Min	Max
Fluorobenzene	72%	50%	150%
2-Fluorobiphenyl	97%	50%	120%
5 α -Androstane	100%	50%	120%
Benzo(a)pyrene-d12	94%	50%	120%

Qualifiers:

B Analyte detected in the blank

D Analyte reported from a diluted extract

U Undetected above the detection limit

J Estimated value detected between the reporting and detection limits

E Estimated value detected above calibration range

RL Reporting limit is the sample equivalent of the lowest linear calibration concentration

EDL Estimated detection limit is 50% of the RL

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client: H2M Labs
 Project: KEY-PSS
 Lab ID: HT040309-SBS
 File ID: 23MAR06.D
 Date Sampled:
 Date Received:
 Date Prepared: 3/9/2004
 Date Cleanup:
 Date Analyzed: 23 Mar 2004 3:55 pm
 Instrument: GC2-MS_59
 Operator: DB

Preparation Method: EPA3570
 Cleanup Method(s):
 Analysis Method: GC/MS (EPA 8270 Mod.)
 Matrix: Soil
 Preservation: None
 Decanted: No
 Sample Size: 2 g
 %Solid: 100%
 Extract Volume: 1.7 mL
 Prep DF: 1
 Analysis DF: 1
 Injection Volume: 0.001 mL
 Batch QC: HT040309-SB

Analyte:	Concentration mg/kg	Q	RL mg/kg	EDL mg/kg	Comments
PAH COMPOUNDS:					
Benzene	23.7		0.09	0.04	85.8%
Toluene	22.9		0.09	0.04	93.2%
Ethylbenzene	22.6		0.09	0.04	93.7%
m/p-Xylenes	21.8		0.09	0.04	94.2%
Styrene	21.7		0.09	0.04	96.9%
o-Xylene	21.4		0.09	0.04	93.2%
1,2,4-Trimethylbenzene	19.0		0.09	0.04	93.7%
Naphthalene	19.7		0.09	0.04	94.4%
2-Methylnaphthalene	19.2		0.09	0.04	94.3%
1-Methylnaphthalene	19.2		0.09	0.04	93.5%
Acenaphthylene	17.3		0.09	0.04	90.9%
Acenaphthene	17.2		0.09	0.04	91.0%
Dibenzofuran	19.2		0.09	0.04	90.6%
Fluorene	18.4		0.09	0.04	89.2%
Phenanthrene	17.5		0.09	0.04	83.8%
Anthracene	15.1		0.09	0.04	84.6%
Fluoranthene	20.6		0.09	0.04	78.7%
Pyrene	20.9		0.09	0.04	77.7%
Benz[a]anthracene	25.1		0.09	0.04	77.0%
Chrysene	24.9		0.09	0.04	74.9%
Benzo[b]fluoranthene	24.0		0.09	0.04	78.0%
Benzo[k]fluoranthene	24.7		0.09	0.04	75.9%
Benzo[e]pyrene		U	0.09	0.04	
Benzo[a]pyrene	24.1		0.09	0.04	79.0%
Perylene		U	0.09	0.04	
Indeno[1,2,3-cd]pyrene	21.4		0.09	0.04	78.4%
Dibenz[a,h]anthracene	19.6		0.09	0.04	79.9%
Benzo[g,h,i]perylene	19.7		0.09	0.04	80.1%

EXTRACTION SURROGATE COMPOUNDS:

	%R	Min	Max
Fluorobenzene	95%	50%	150%
2-Fluorobiphenyl	107%	50%	120%
5a-Androstane	98%	50%	120%
Benzo(a)pyrene-d12	86%	50%	120%

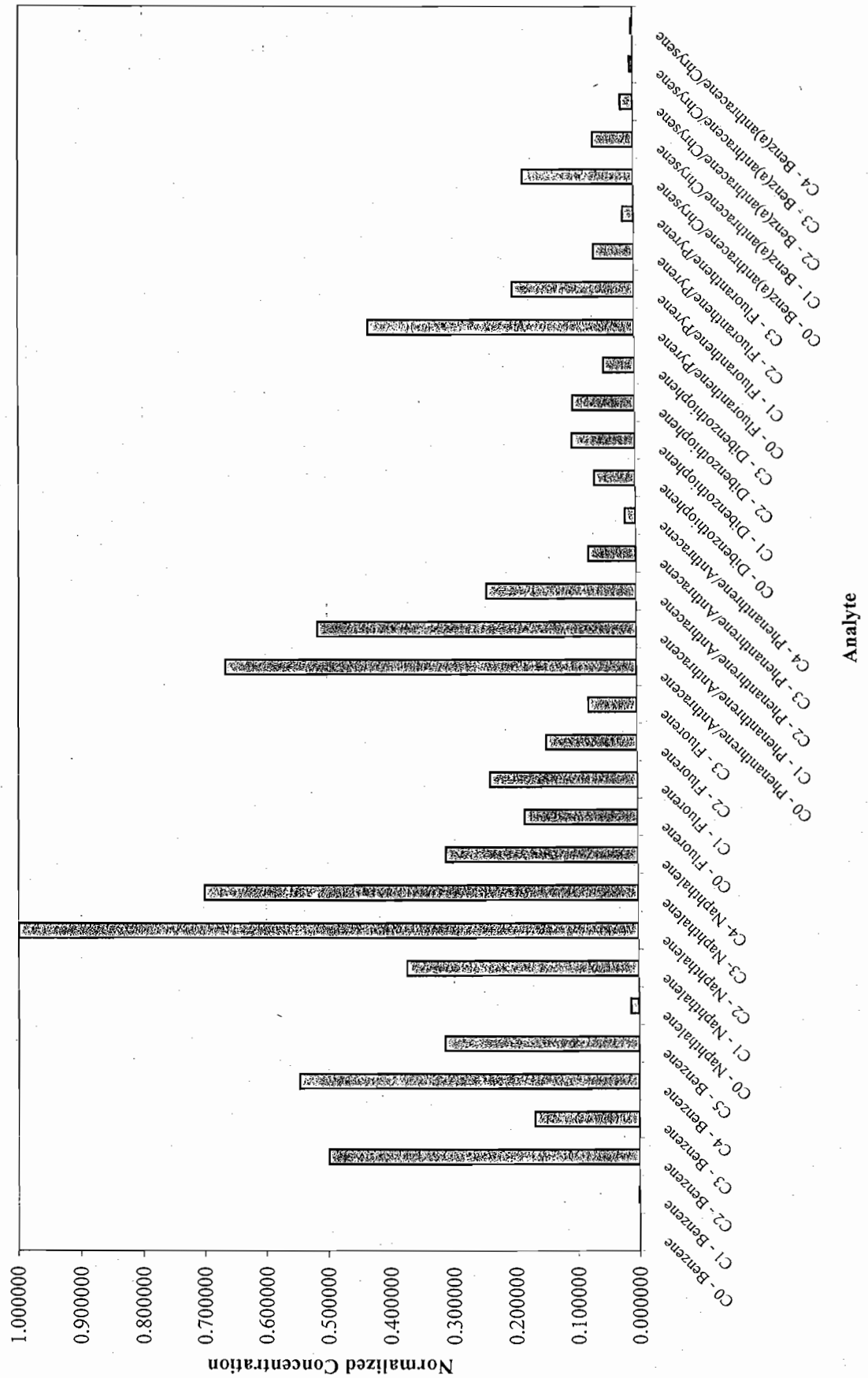
Qualifiers:

B Analyte detected in the blank
 D Analyte reported from a diluted extract
 U Undetected above the detection limit
 J Estimated value detected between the reporting and detection limits
 E Estimated value detected above calibration range
 RL Reporting limit is the sample equivalent of the lowest linear calibration concentration
 EDL Estimated detection limit is 50% of the RL

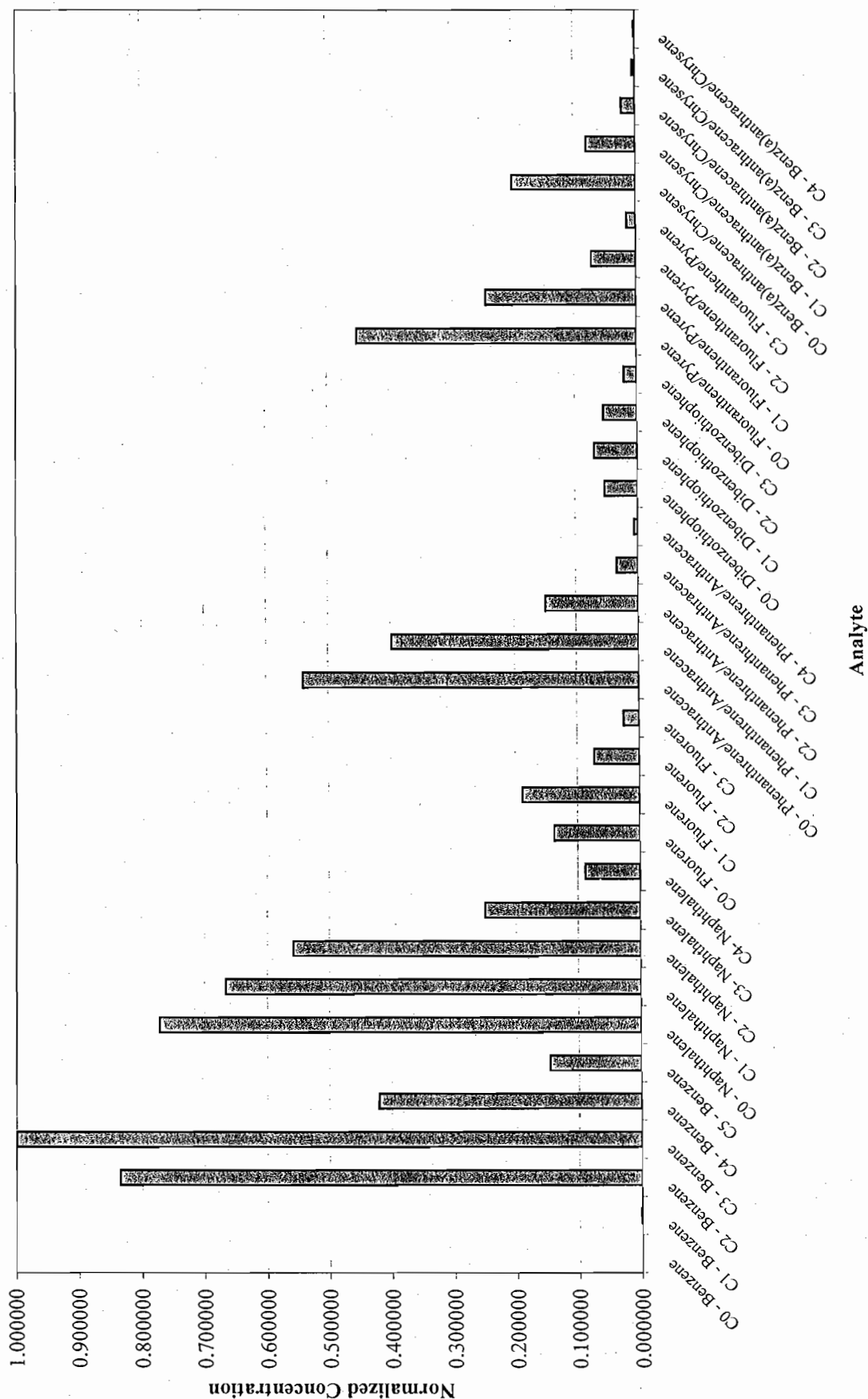
Appendix D

Extended PAH Profiles – Bar Graphs

0403256-001A



0403256-002A



Appendix E

Extracted Ion Current Profiles (EICs)

Primary Ions for Target Compounds and Compound Groups

Target Compound or Group	Abbreviation	Ion
Alkylated cyclohexanes		83
Normal alkanes, pristane, phytane		85
Isoprenoid hydrocarbons, pristane, phytane		113
Olefins		115
Hopanes		191
Steranes		217
Benzene	B	78
Monoalkylbenzenes	C1B	91
Dialkylbenzenes	C2B	91
Trialkylbenzenes	C3B	105
Tetraalkylbenzenes	C4B	119
Pentaalkylbenzenes	C5B	133
Naphthalene	N	128
Monoalkylnaphthalenes	C1N	142
Dialkylnaphthalenes	C2N	156
Trialkylnaphthalenes	C3N	170
Tetraalkylnaphthalenes	C4N	184
Fluorene	F	166
Monoalkylfluorenes	C1F	180
Dialkylfluorenes	C2F	194
Trialkylfluorenes	C3F	208
Phenanthrene, anthracene	PA	178
Monoalkylphenanthrenes and anthracenes	C1PA	192
Dialkylphenanthrenes and anthracenes	C2PA	206
Trialkylphenanthrenes and anthracenes	C3PA	220
Tetraalkylphenanthrenes and anthracenes	C4PA	234
Dibenzothiophene	D	184
Monoalkyldibenzothiophenes	C1D	198
Dialkyldibenzothiophenes	C2D	212
Trialkyldibenzothiophenes	C3D	226
Fluoranthene, pyrene	FP	202
Monoalkylfluoranthenes and pyrenes	C1FP	216
Dialkylfluoranthenes and pyrenes	C2FP	230
Trialkylfluoranthenes and pyrenes	C3FP	244
Benz(a)anthracene, chrysene	BC	228
Monoalkylbenz(a)anthracenes and chrysenes	C1BC	242
Dialkylbenz(a)anthracenes and chrysenes	C2BC	256
Trialkylbenz(a)anthracenes and chrysenes	C3BC	270
Tetraalkylbenz(a)anthracenes and chrysenes	C4BC	284

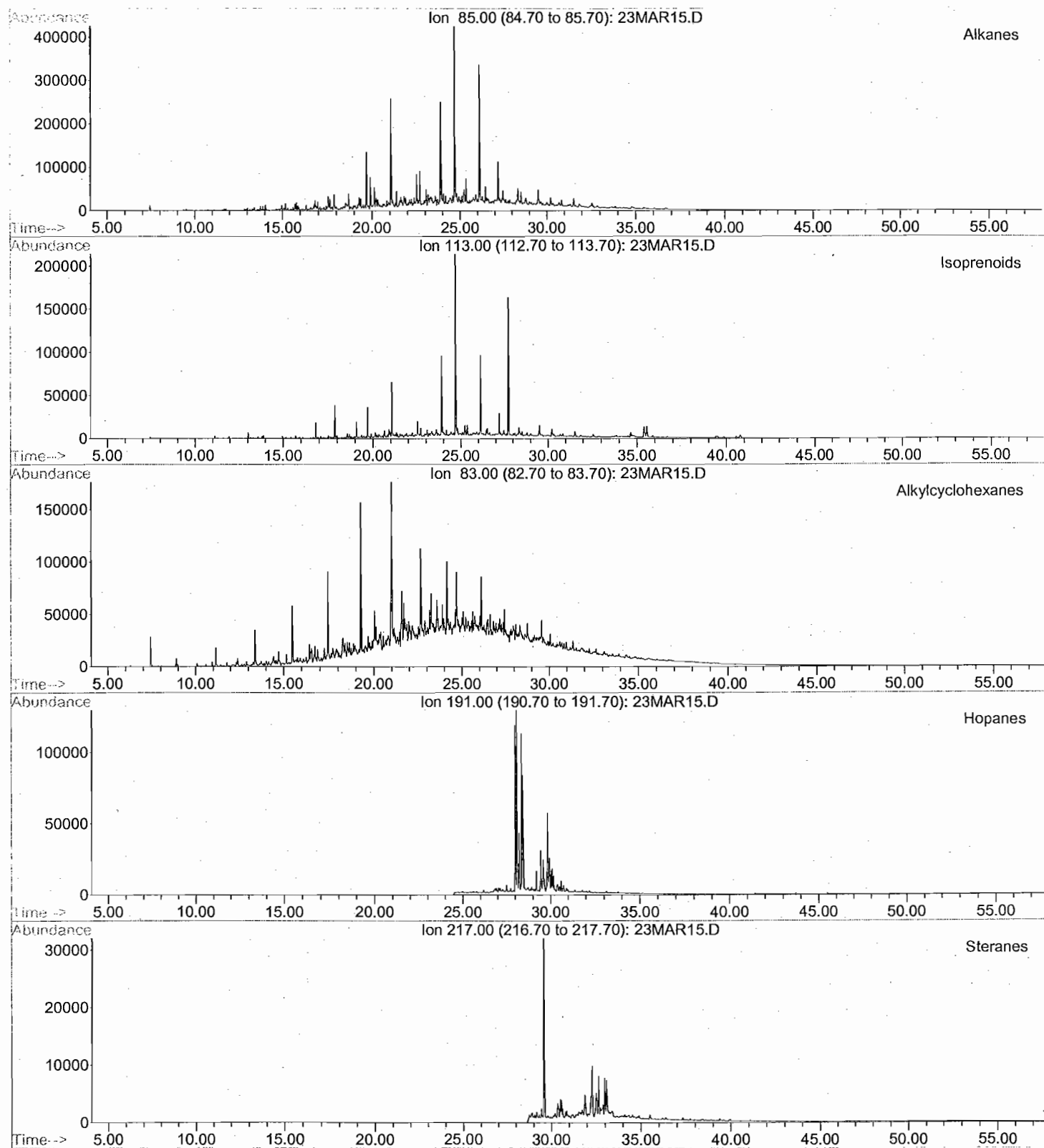
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Lab ID: HT040308-01

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Acquired: 24 Mar 2004 1:32 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB



Field ID: 0403256-001A

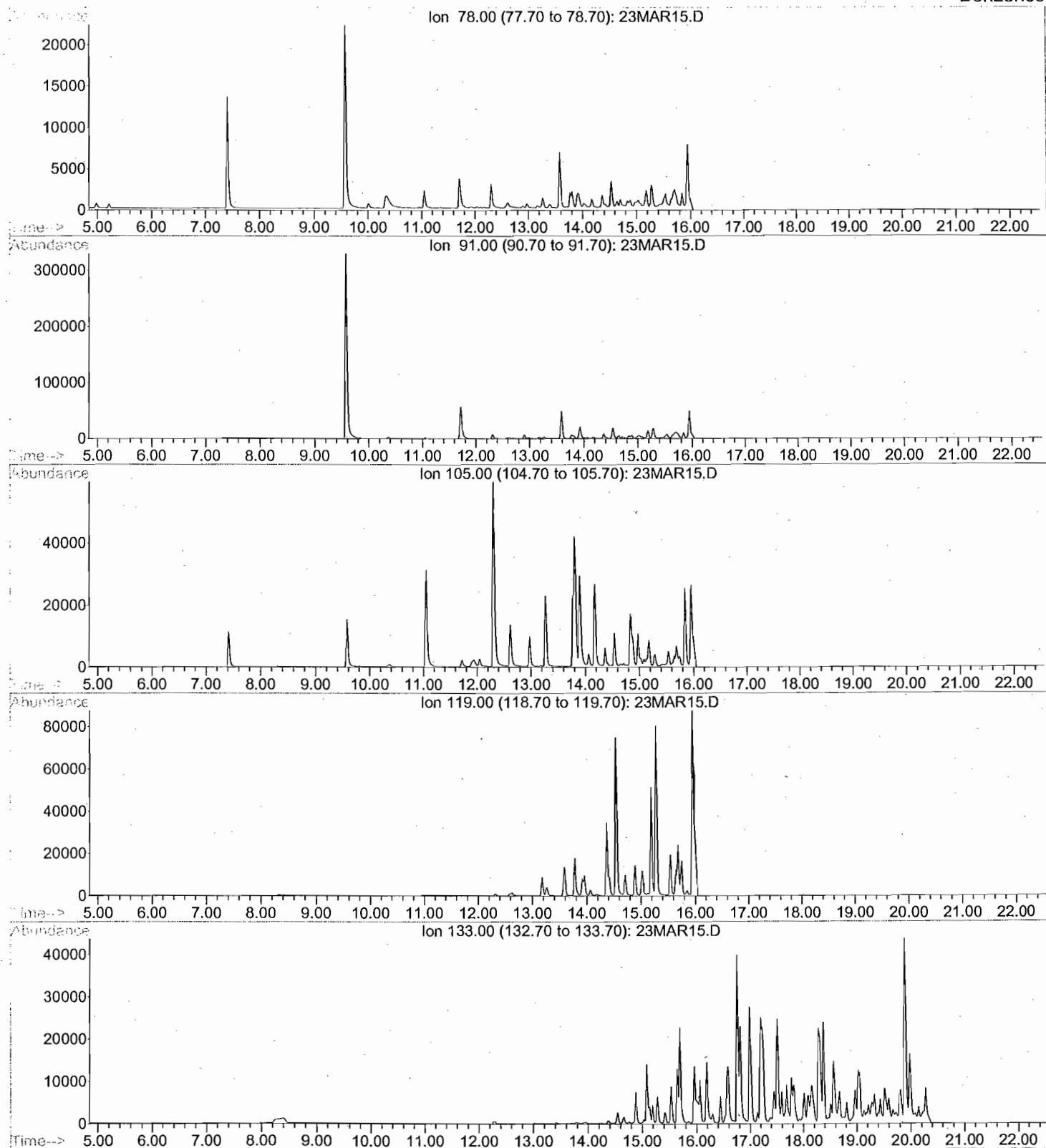
Lab ID: HT040308-01

File: I:\2\DATA\040323\23MAR15.D

Acquired: 24 Mar 2004 1:32 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Benzenes



Field ID: 0403256-001A

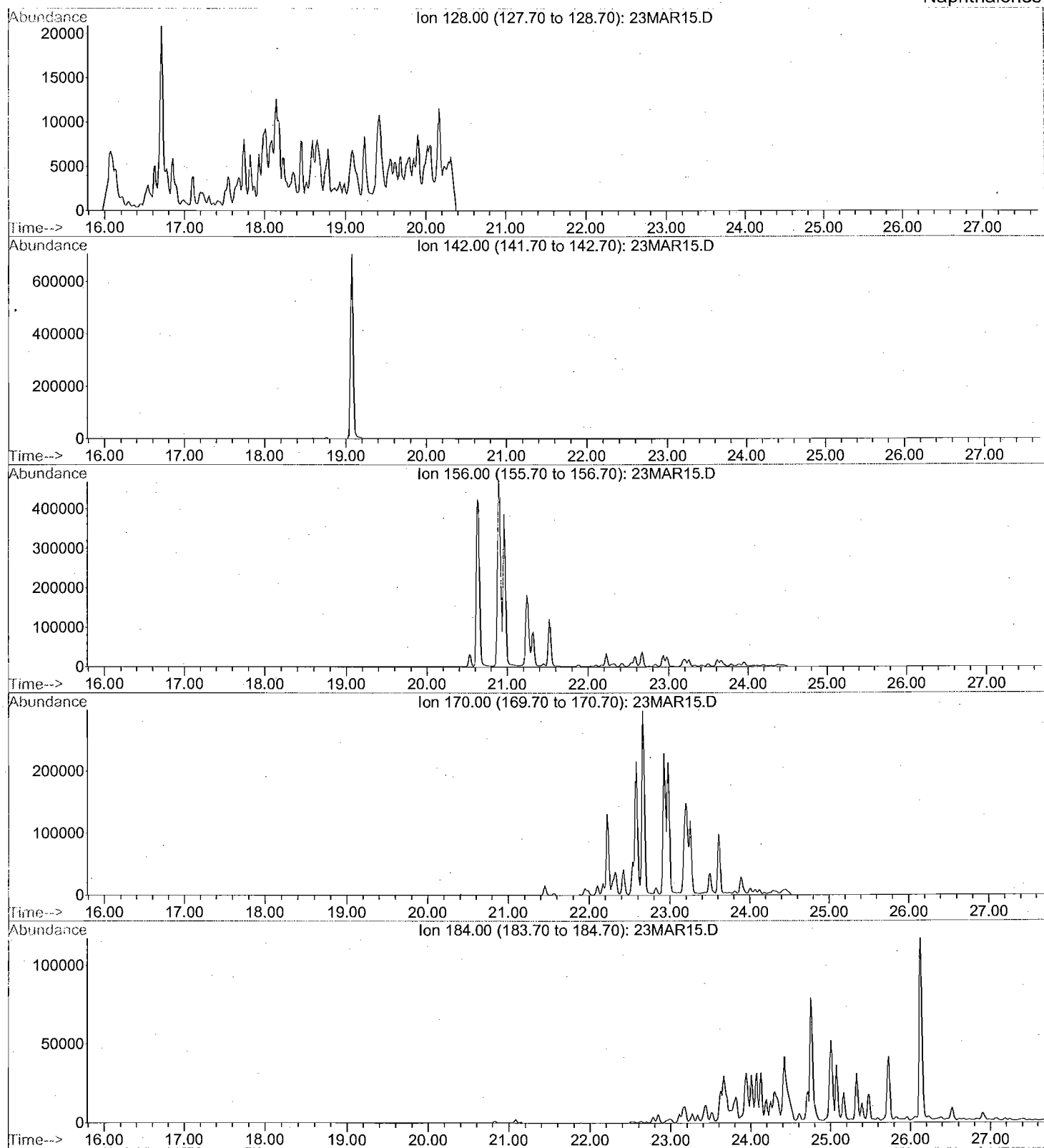
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File: I:\2\DATA\040323\23MAR15.D

Acquired: 24 Mar 2004 1:32 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Naphthalenes



Field ID: 0403256-001A

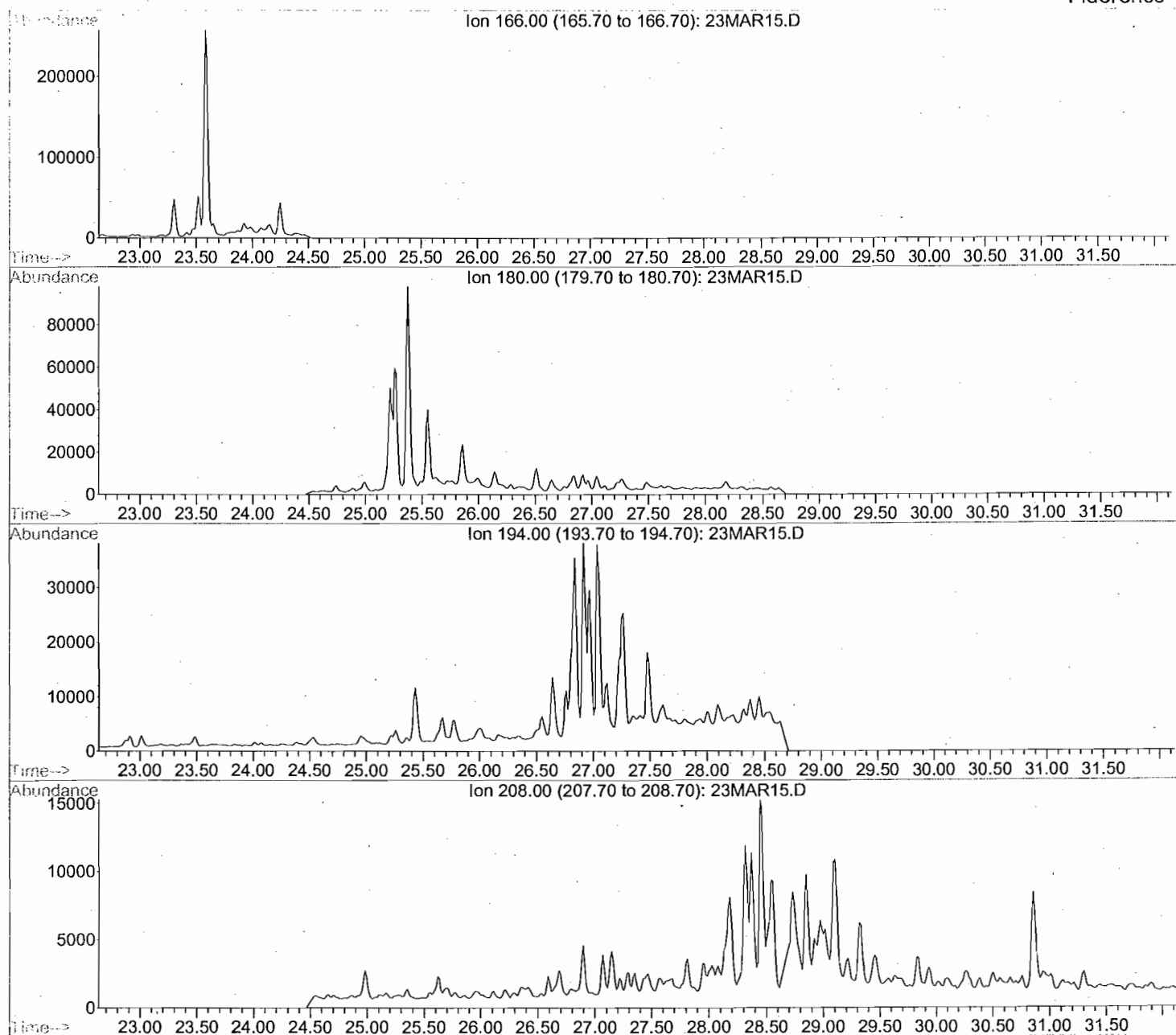
Lab ID: HT040308-01

File: I:\2\DATA\040323\23MAR15.D

Acquired: 24 Mar 2004 1:32 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Fluorenes



Field ID: 0403256-001A

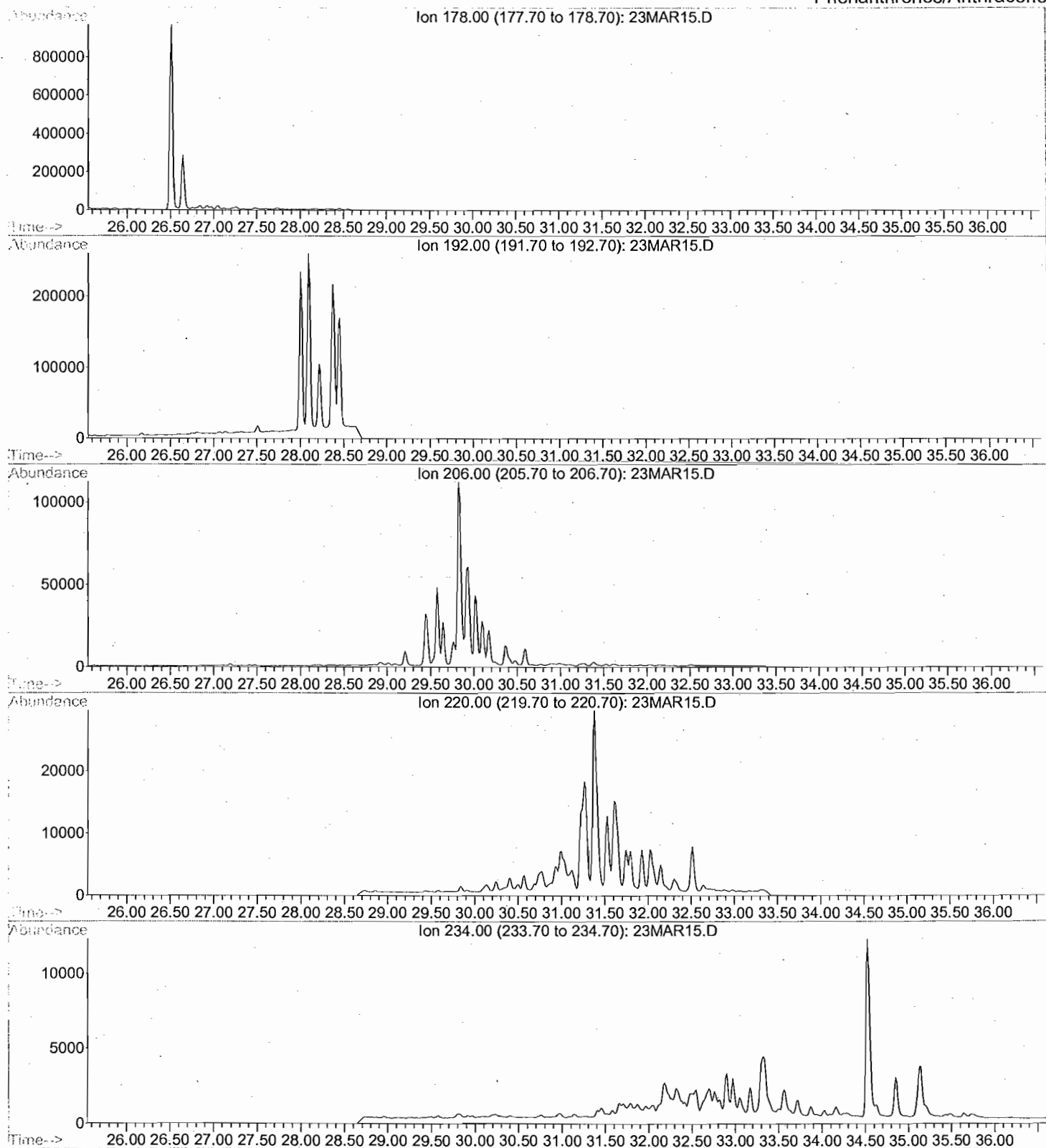
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Instrument: GC2-MS_59 Operator: DB

Phenanthrenes/Anthracenes



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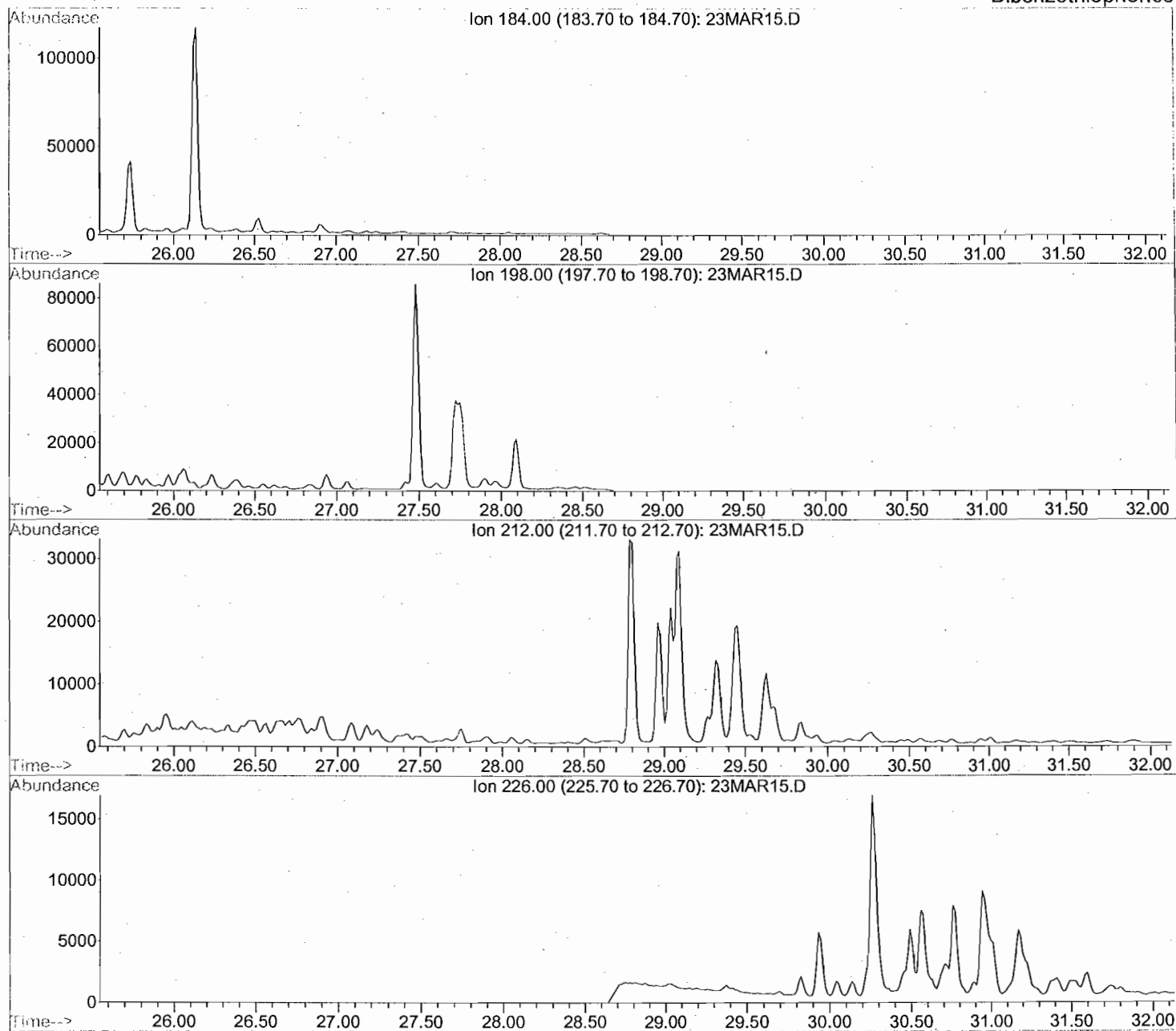
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Instrument: GC2-MS_59 Operator: DB

Dibenzothiophenes



Field ID: 0403256-001A

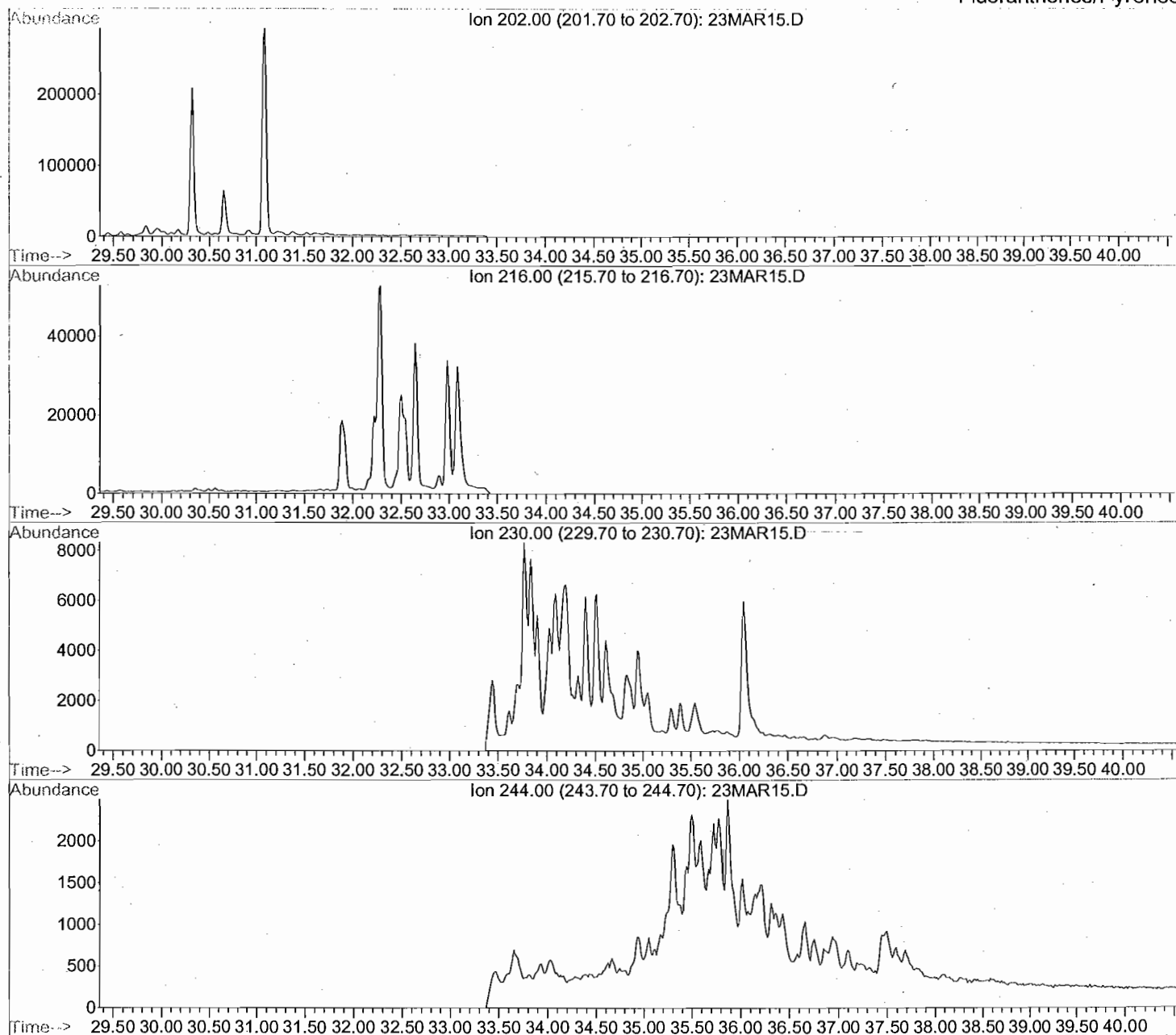
Lab ID: HT040308-01

File: I:\2\DATA\040323\23MAR15.D

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Instrument: GC2-MS_59 Operator: DB

Fluoranthenes/Pyrenes



Field ID: 0403256-001A

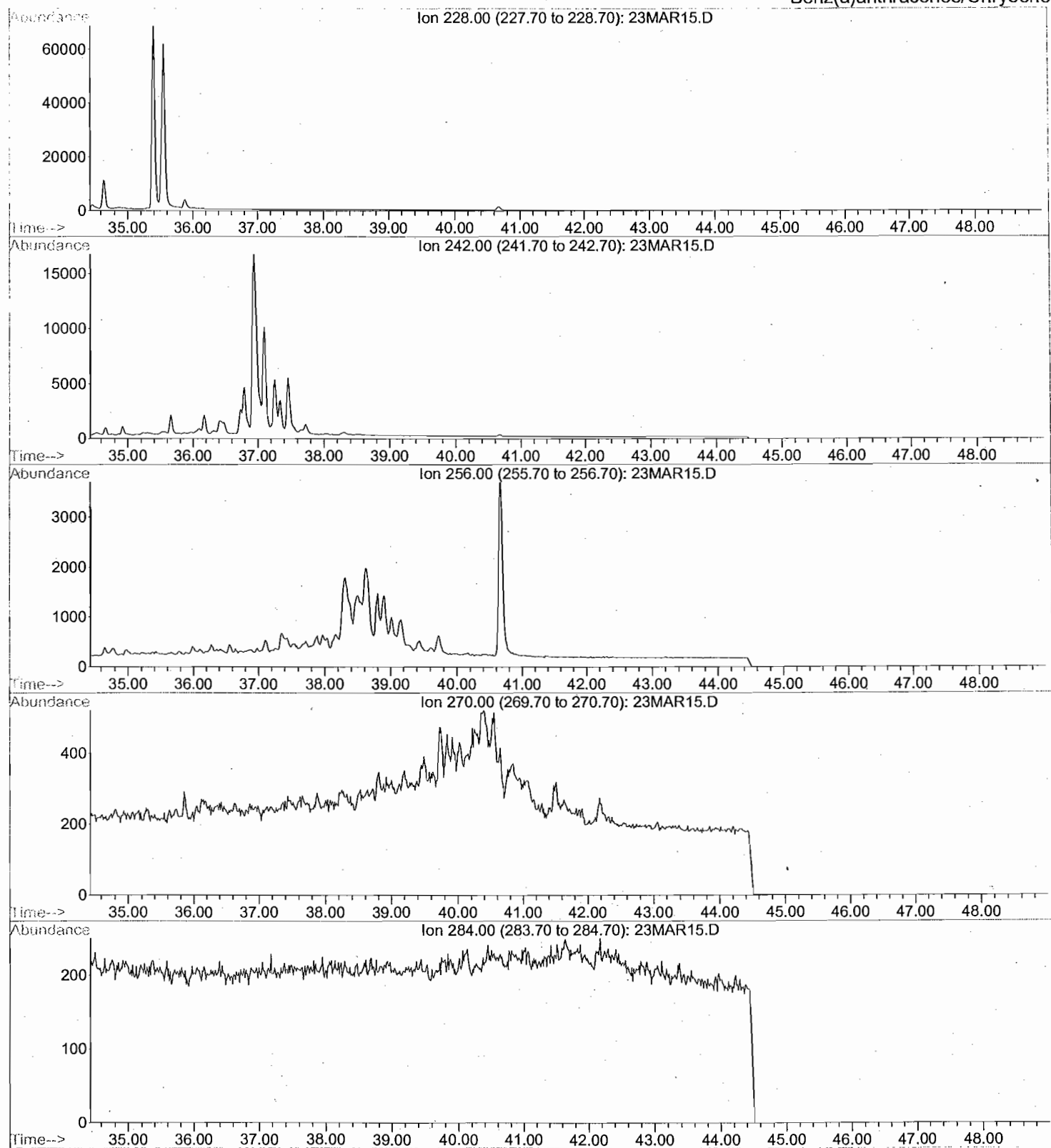
Lab ID: HT040308-01

File: I:\2\DATA\040323\23MAR15.D

Acquired: 24 Mar 2004 1:32 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Benz(a)anthracenes/Chrysenes



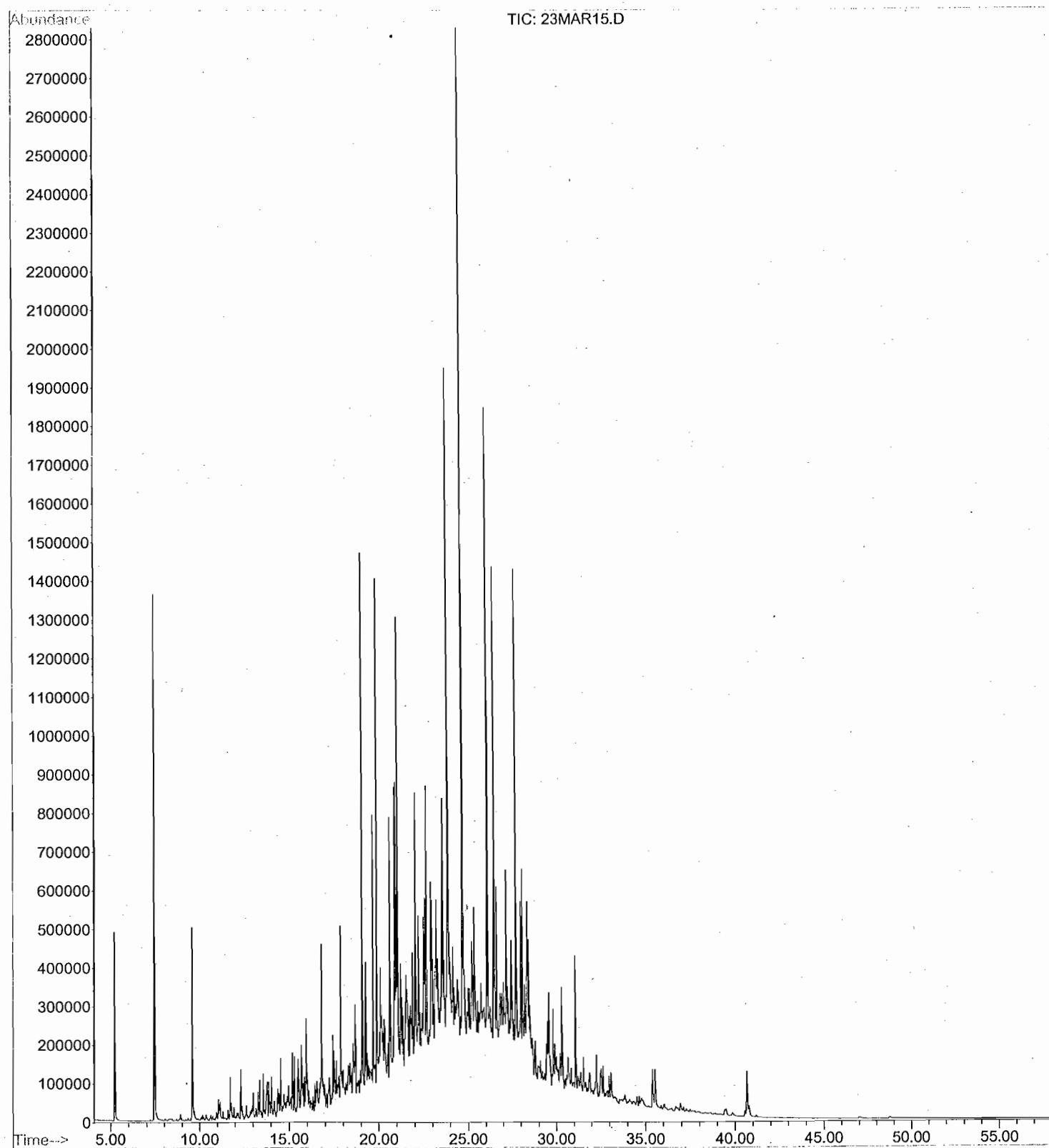
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Instrument: GC2-MS_59 Operator: DB



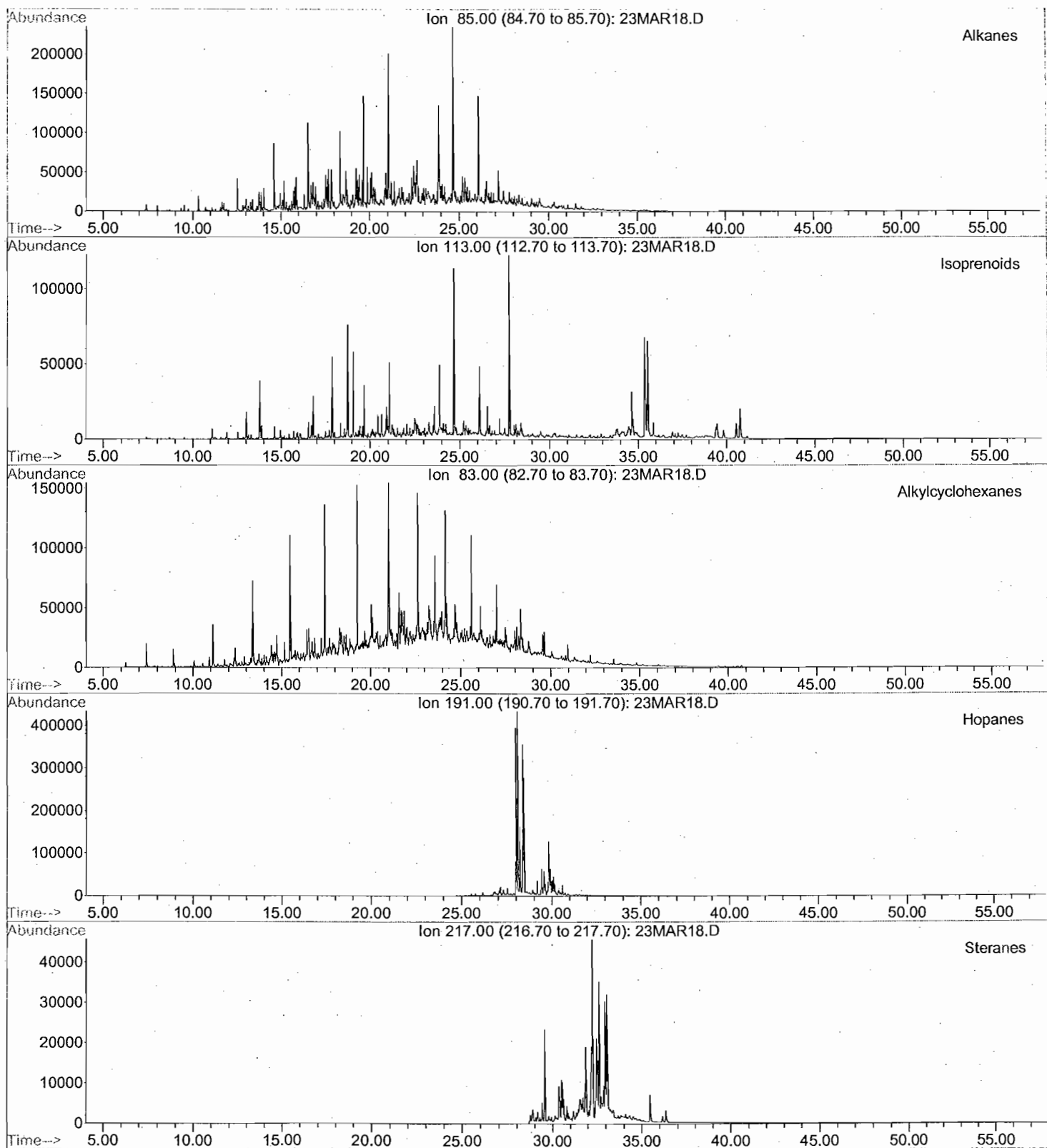
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Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB



Field ID: 0403256-002A

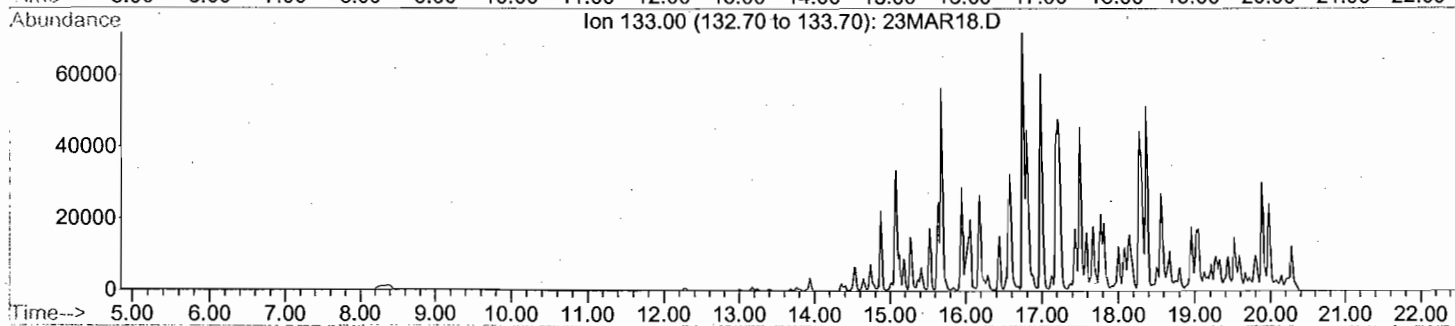
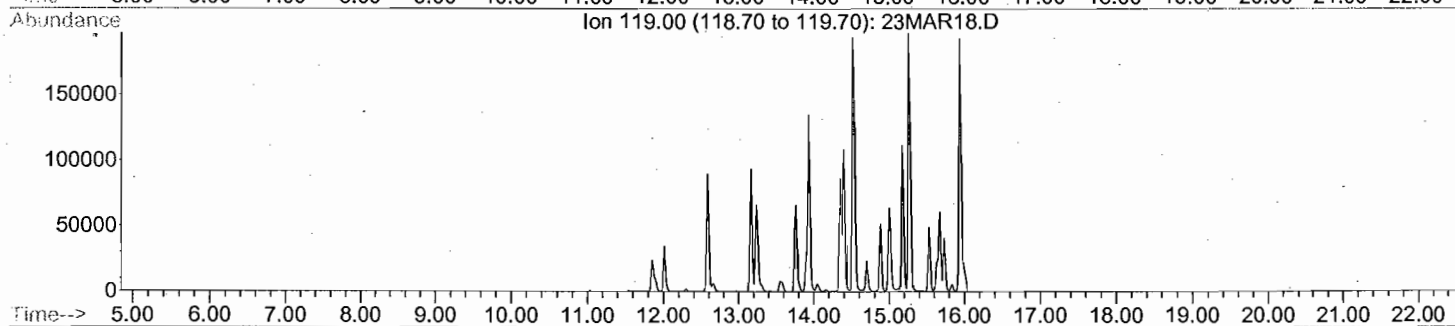
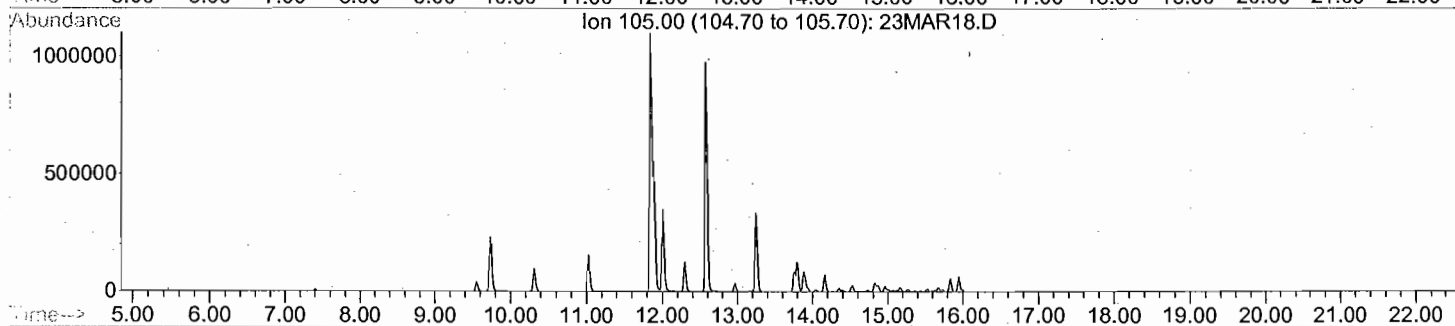
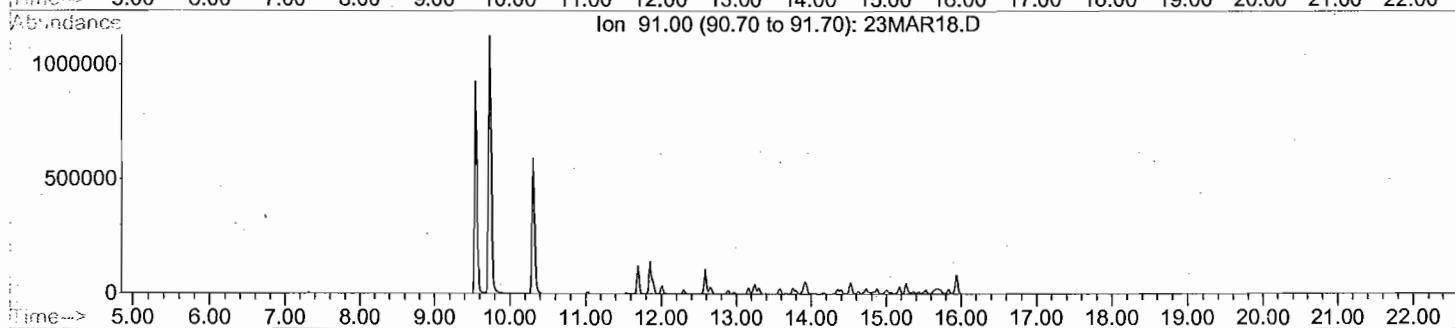
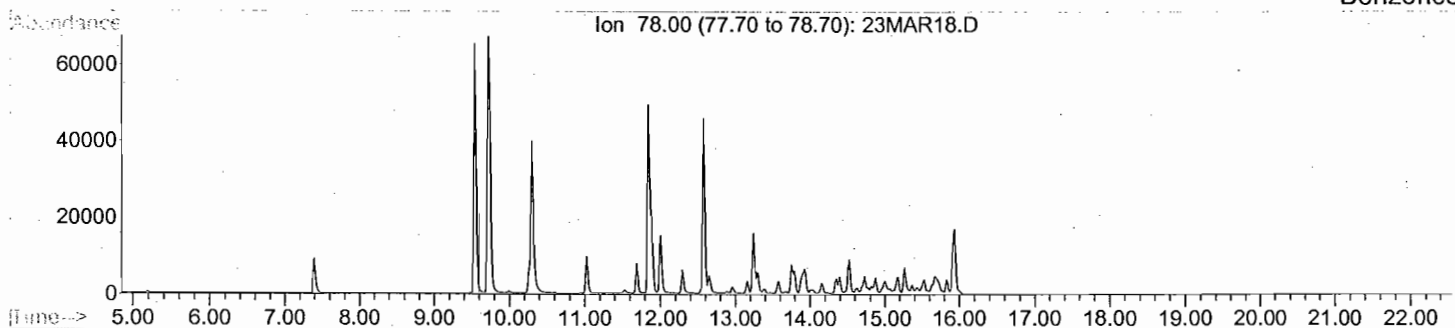
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Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Benzenes



Field ID: 0403256-002A

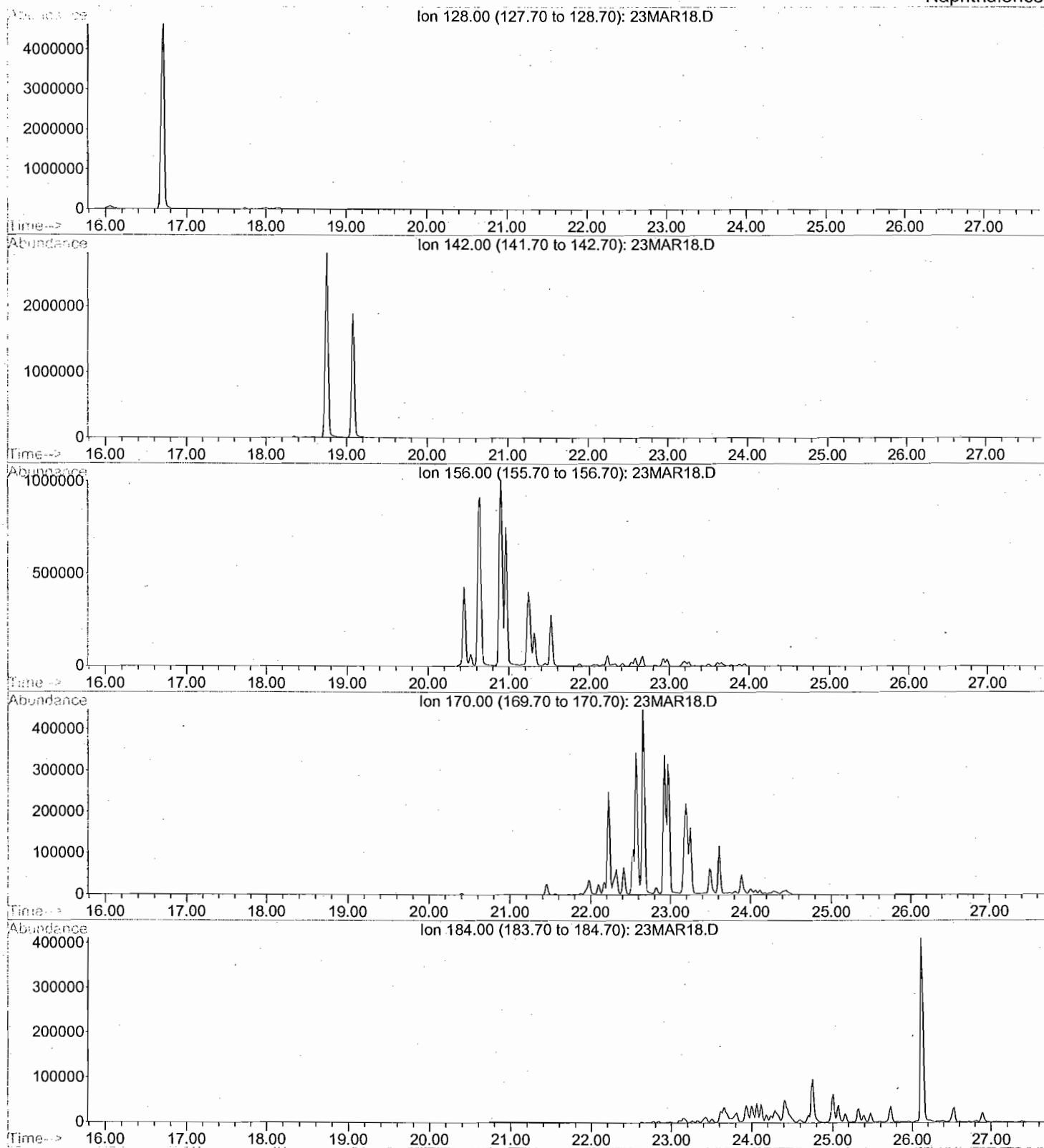
Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Naphthalenes



Field ID: 0403256-002A

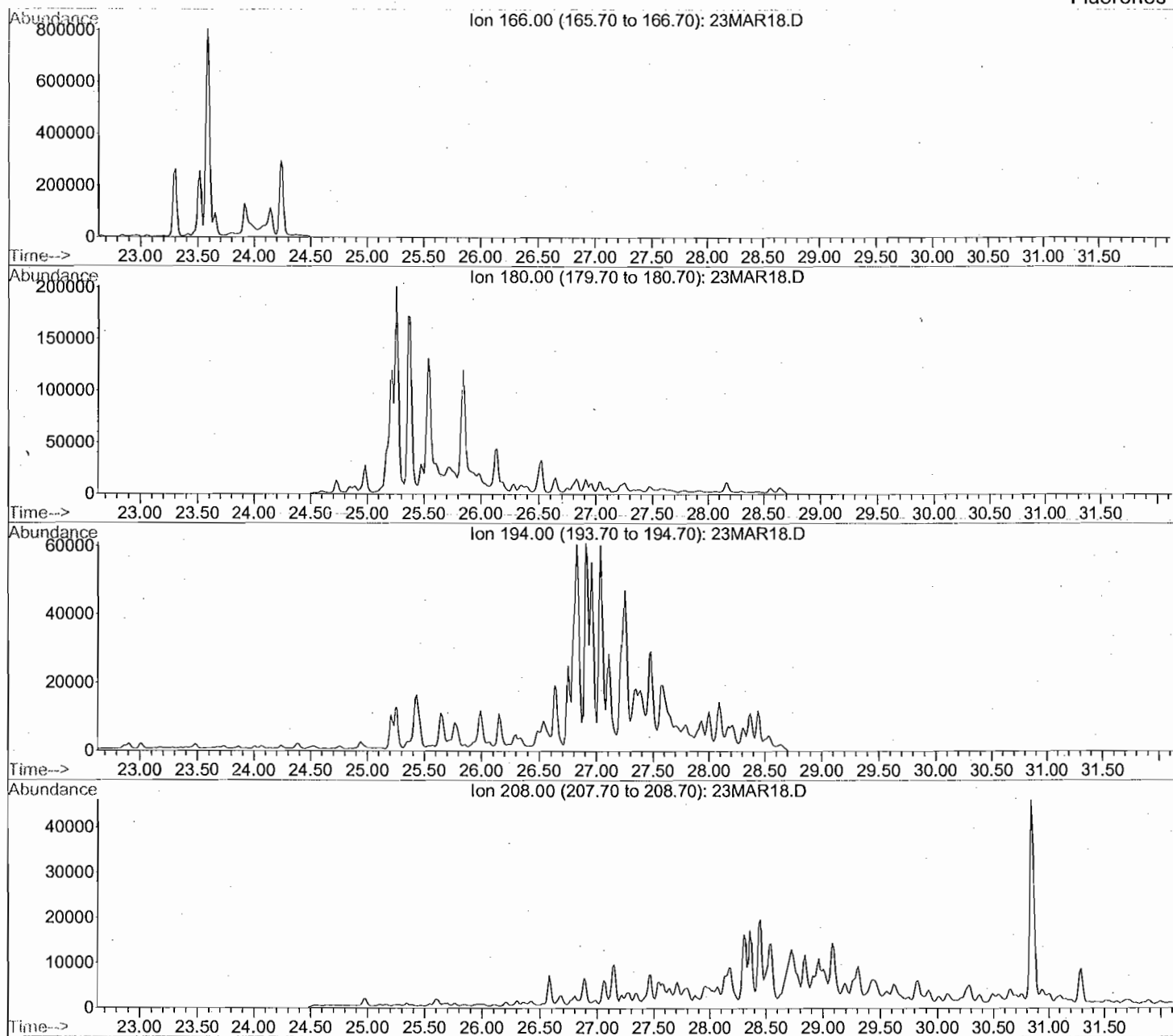
Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Fluorenes



Field ID: 0403256-002A

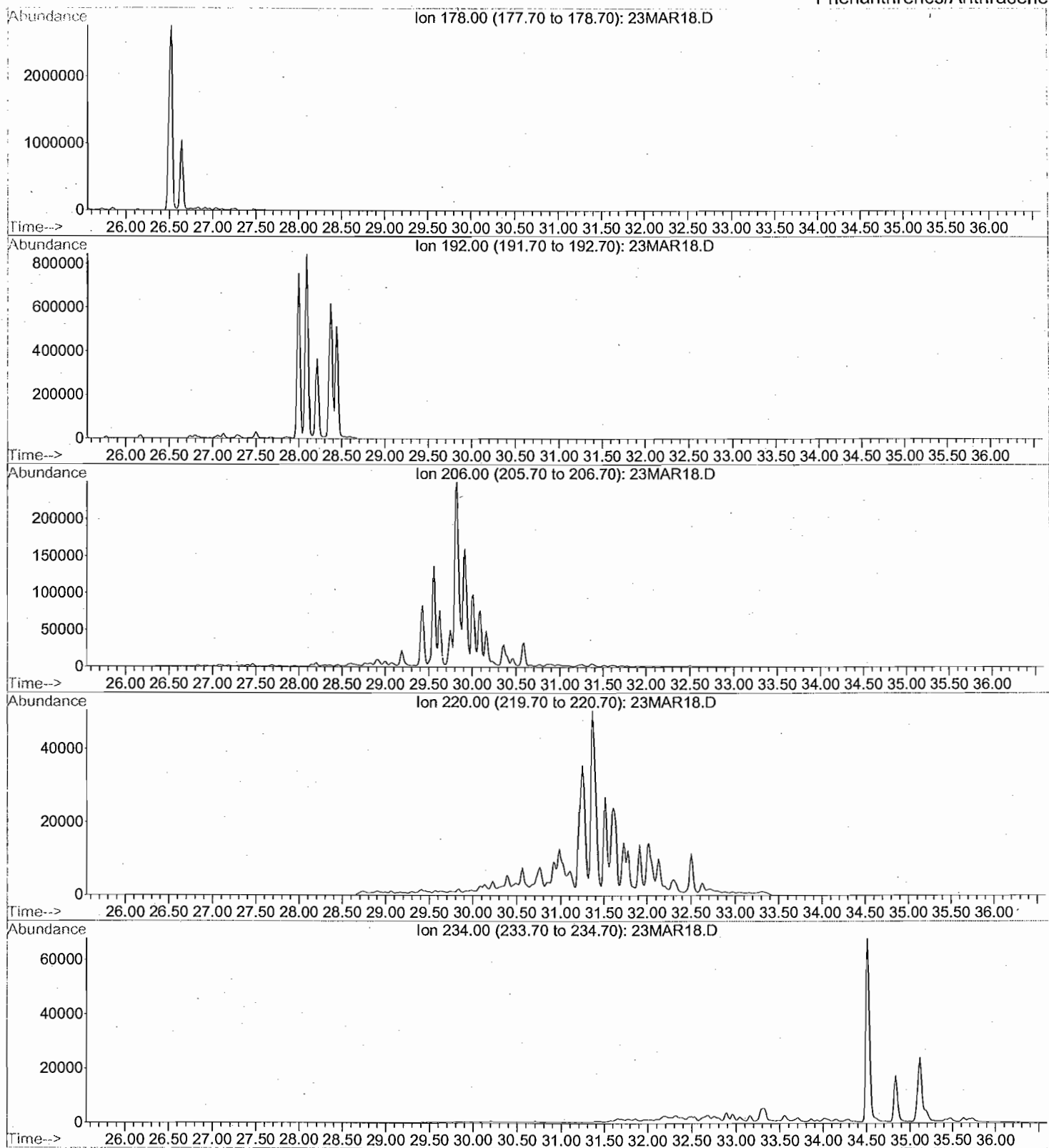
Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Phenanthrenes/Anthracenes



Field ID: 0403256-002A

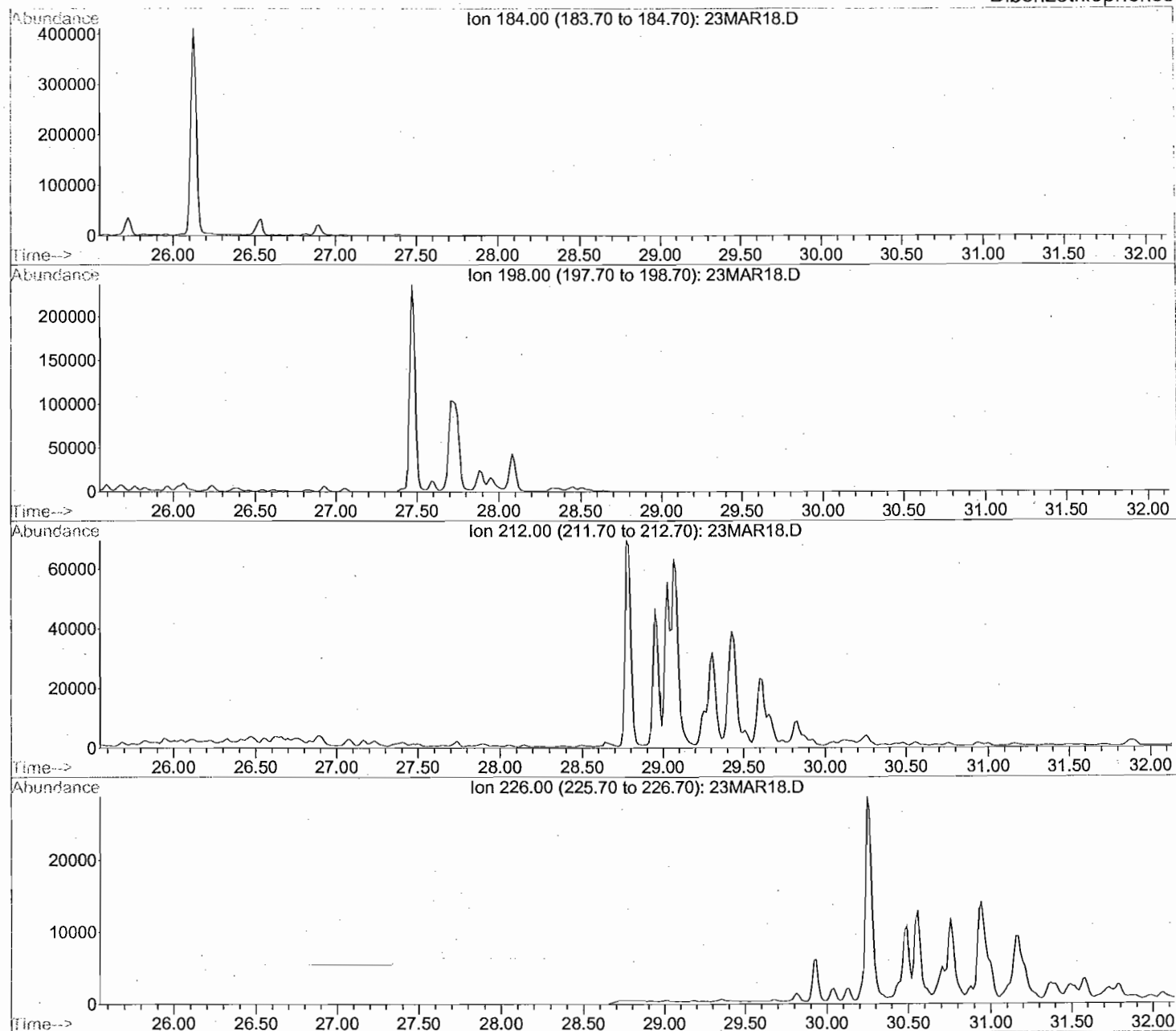
Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Dibenzothiophenes



Field ID: 0403256-002A

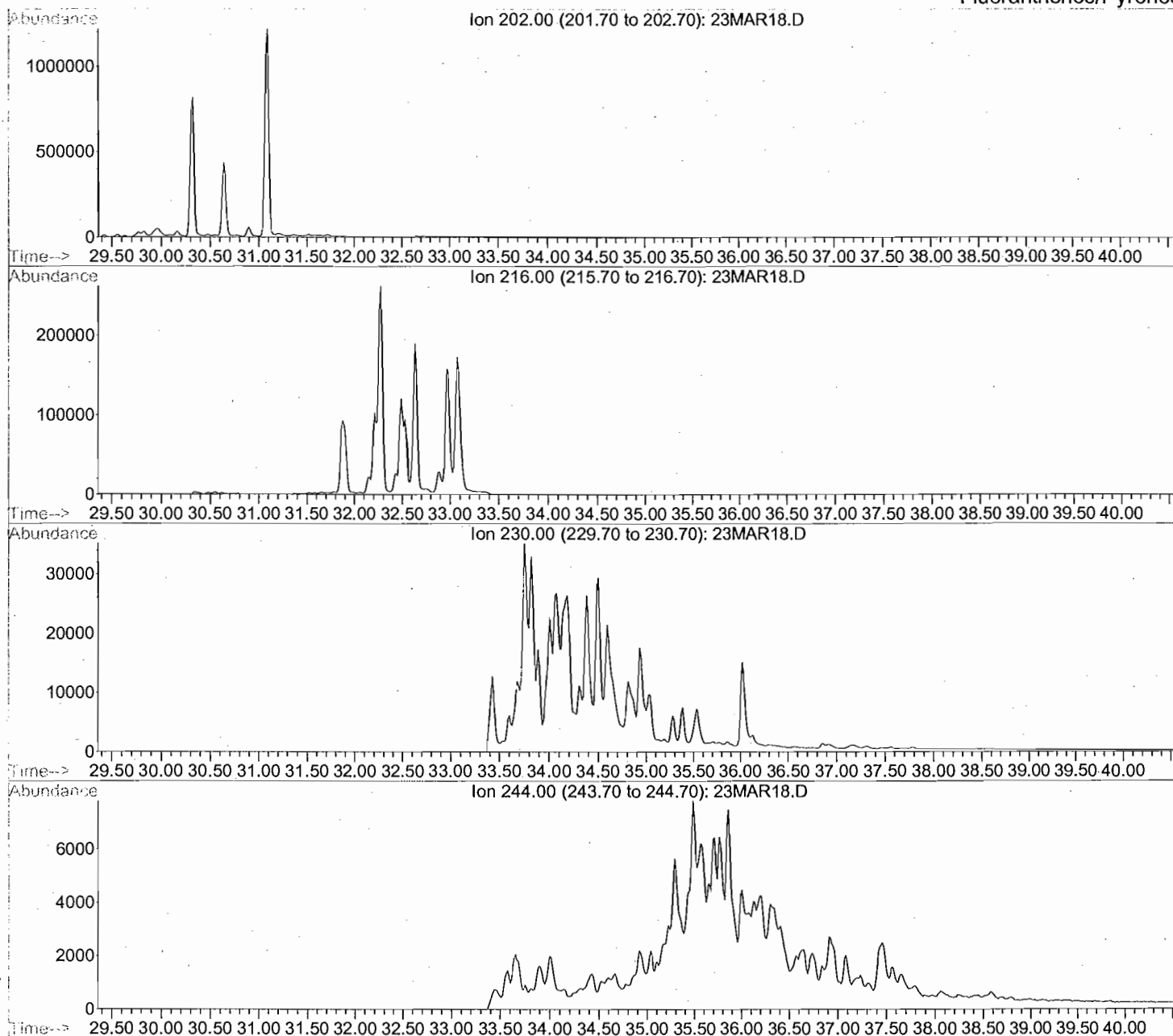
Lab ID: HT040308-02

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Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

Fluoranthenes/Pyrenes

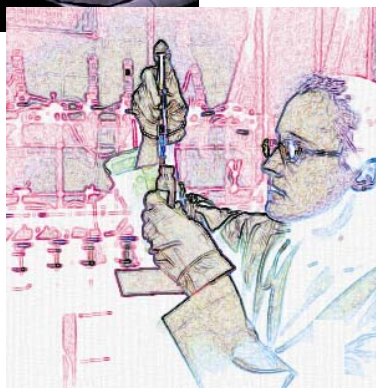


Appendix M
META Environmental Forensic Report
January 24, 2008

Environmental Forensic Report

KEY - URS

SDGs: HC071228, HC080118



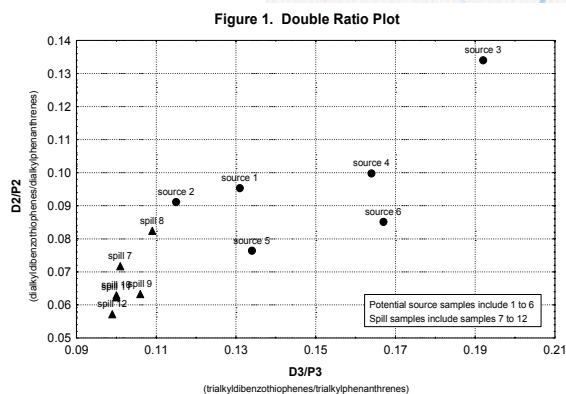
Report To:

H2M
575 Broadhollow Rd.
Melville, NY 11747

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

January 24, 2008



Identifying and allocating sources of pollutants in complex environments.

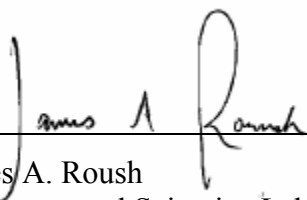
Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472
Phone: 617-923-4662
Fax: 617-923-4610
E-Mail meta@metaenv.com

Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. The results included in this data report relate only to the samples as received and analyzed by the laboratory.


Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager and Quality Assurance Officer, as verified by the following signatures.



James A. Roush
Environmental Scientist, Laboratory Manager

January 24, 2008

Date



David M. Mauro
Senior Scientist, Quality Assurance Officer

January 24, 2008

Date

Sample Delivery Group Narrative

Project: KEY - URS

Client: H2M Group
575 Broadhollow Rd.
Melville, NY 11747

Report Contact: Jennifer Aracri

Dates of Receipt: December 28, 2007 and January 18, 2008

Sample Summary: The samples received for this project are summarized in the attached sample login forms.

META Project Number: H09010

SDG No.: HC071228 and HC080118

Total Pages in Report: 107

Chain of Custody

The samples were received in good condition. The internal temperature of one of the shipping containers was higher than the recommended 2-6°C range and is as follows:

Samples received: 12/28/07	16.2°	No ice present
01/18/08	2.0°	Cold packs present

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page. The disposal of samples and extracts will be authorized one month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds.

Results

Sample results are presented in several appendices which follow this narrative.

Appendix B: GC/FID Fingerprints

Appendix C: MAH/PAH Concentrations

Appendix D: Extended MAH/PAH Profiles - Histograms

Appendix E: Extracted Ion Current Profiles (EICPs)

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." Undetected analytes were reported as null and flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The soil samples were extracted within holding times with the exception of sample HC071228-01 which was extracted one day outside the recommended holding or 15 days after collection. Sample HC071228-01 was received by the laboratory 9 days after collection. The samples and extracts were stored at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to extraction and analysis. The extracts were analyzed within 40 days of sample preparation.

Surrogate Spikes

Extraction surrogates were added to all samples prior to extraction. All surrogate compounds were recovered within the 50%-120% acceptable criterion.

Blanks

Various MAHs and PAHs were detected below or just above the reporting limit (RL) in soil blanks QC080103-SB and QC080121-SB. As these compounds were generally detected in the field samples at much higher relative concentrations (greater than 5x the blank levels) positive bias does not appear to be significant.

Blank Spikes

A blank spike sample was extracted with each soil batch. All spiked compounds were recovered within criteria.

Duplicates

Samples 0714446-008C and 0801605-002D were extracted and analyzed in duplicate. Relative percent differences are reported with the sample results in Appendix C.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards.

Interpretation

Introduction

Three samples of soil were received by META from the Key-URS site, one sample on December 28th 2007 and two samples on January 18, 2008. The samples were analyzed for hydrocarbon fingerprints and an expanded list of MAHs and PAHs.

This report summarizes the findings and compares the samples.

Description of Chemical Fingerprinting Methodology

PAHs commonly form the basis for source attribution and allocation at sites involving petrogenic or pyrogenic materials. Studies have shown that the pattern of PAHs clearly distinguishes petrogenic from pyrogenic substances and can be used to identify and classify petrogenic or pyrogenic substances of different origins. For example, ASTM Method D 5739-95 is the method used extensively by the U.S. Coast Guard to determine the source of oil spilled in public waterways. That method relies on the determination of selected PAHs in oil, soil, or water samples by gas chromatography with mass spectrometric detection (GC/MS) and the use of the qualitative patterns and quantitative ratios of those PAHs to determine which oil samples have a common origin. Similarly, work by META Environmental, Inc. (META) has shown that the same methodology can be used to identify the sources of PAHs at former MGP sites. Further, META has modified the typical sample preparation and analysis procedures for hydrocarbon fingerprinting to include MAHs as well as PAHs.

An approach based on MAH/PAH profiling has been used to investigate the sources of hydrocarbons at the KEY-URS site, which is the topic of this report. Therefore, a more detailed discussion of the forensic methods used is presented in the next subsection as background.

GC/FID Fingerprinting

All soil samples in this study were analyzed by gas chromatography with flame ionization detection (GC/FID). With GC/FID, organic compounds in a sample are vaporized and then separated in a long, narrow fused silica capillary column. Separation follows boiling point approximately with the most volatile compounds exiting the column first followed by

increasingly less volatile compounds. Therefore, certain refined petroleum products, generated by the distillation of crude oil and which differ in their boiling point ranges, are distinguishable by where they appear on a chromatogram. Once they exit the column, the compounds are detected using the flame ionization technique. As the compounds exit and are detected, their responses are recorded and shown as peaks on a continuous plot. The height and area of a peak are proportional to the concentration of that compound in the sample. When done in a controlled and reproducible manner, the GC/FID method produces a “fingerprint” of a sample where the presence and relative amounts of the compounds are immediately visible as peaks of varying height appearing at different times. GC/FID fingerprints for the samples analyzed are provided in Appendix B.

GC/FID methods are commonly used for fingerprinting in a number of forensic fields. The patterns of individual peaks and the sizes and shapes of any baseline features are examined qualitatively for similarities and differences among samples.

The instrumental conditions for the GC/FID analyses in this study were adjusted so that compounds with boiling points between about hexane (C6) and n-tetracontane (C40) were detectable in one analytical run. This range includes most of the VOCs and all of the SVOCs commonly measured in environmental investigations. In particular, it includes benzene, toluene, ethylbenzene, xylenes, and the 16 priority pollutant PAHs that comprise a major portion of MGP tars and other pyrogenic substances. It also includes the range of compounds that are measurable in pyrogenic substances by gas chromatographic methods. Finally, META’s GC/FID conditions detect most of the constituents of gasoline, as well as all of the constituents of higher boiling petroleum products (e.g., kerosene, diesel, refined oils).

Source identification using GC/FID is mostly qualitatively applied. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes a judgment regarding the nature and source of the contamination in the sample. The chemist might go “peak-by-peak” looking for similarities and differences, comparing peak ratios, and looking for indicator compounds.

For some samples, GC/FID fingerprinting is accurate and sufficient. However, the reliability of GC/FID fingerprinting decreases when multiple sources are present in a sample and when the sample composition becomes extensively altered by environmental weathering processes. Other testing methods, such as GC/MS, are complementary for source identification under these conditions.

Extended PAH Profiles (EPPs) by GC/MS

Samples from the KEY-URS site also were analyzed by GC/MS for an expanded list of MAHs and PAHs (EPPs). Separation was accomplished with gas chromatography using a method similar to the GC/FID method discussed previously. However, in GC/MS, once compounds exit the column, they are detected using a mass spectrometer. In the mass spectrometer, the molecules of each compound are ionized at high temperature and vacuum. The ionic fragments are unstable and fragment into smaller ions. The ions are then counted and the mass spectrum recorded. Thus, the mass spectrum for a compound is the pattern of ionic fragments that forms

when that compound is ionized. Mass spectra vary widely and are characteristic of their source compound. For example, the mass spectrum of hexane is very different from the mass spectrum of benzene even though both compounds contain six carbon atoms plus hydrogen atoms.

In GC/MS, one obtains both a chromatogram of peaks and additional compound-specific information in the mass spectrum. When executed in a controlled and reproducible manner, the GC/MS method produces multiple “fingerprints” of a sample when specific fragment ions are isolated.

GC/MS is utilized in two general ways in environmental forensic chemistry. First, samples are analyzed under the conditions required by various standard methods, particularly EPA Methods 8260 and 8270 (U.S. EPA SW-846). The concentrations of certain target compounds are determined and the mass spectrum of each peak in the chromatogram is generated and stored. These mass spectra can be used to identify non-target compounds or to generate extracted ion current profiles (EICPs). Second, various specialty methods are utilized where the GC/MS operating conditions are setup to measure only certain groups of compounds. For example, the method described in 40 CFR Subchapter J Part 300 Subpart L Appendix C for PAHs, alkylated PAHs, and biomarkers is used extensively in oil spill and UST release analyses. This method is similar to ASTM Method D 5739-95, “Standard Practice for Oil Spill Source Identification by Gas Chromatography and Positive Ion Electron Impact Low Resolution Mass Spectrometry.”

GC/MS data are used both qualitatively and quantitatively. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes judgments regarding the nature and source of the contamination in the sample. The chemist might go “peak-by-peak” looking for similarities and differences, comparing peak ratios, and looking for indicator compounds. This process is described in detail in ASTM Method D 5739-95.

GC/MS data are more commonly used quantitatively by calculating the concentrations of selected compounds, by comparing peak area ratios, or by applying chemometric or pattern recognition techniques to the raw or adjusted data. These data analysis methods are used extensively with extended PAH profiles (MAHs, PAHs and alkylated PAHs) and with biomarker compound data. Various degrees of statistical confidence can be achieved by examining chemical concentrations and compound ratios or patterns from multiple samples and replicate samples. This characteristic of GC/MS quantitative data is particularly valuable when assessing the degree of similarity or difference between samples, particularly when multiple sources of hydrocarbons are present in the sample or when environmental weathering has altered the original distributions of hydrocarbons.

Finally, the mass spectra of selected compounds also can be examined to determine whether any diagnostic or indicator chemicals are present in the sample. For example, the PAH retene (1-methyl-7-isopropylphenanthrene) is present in significant concentrations in coal, but at much lower concentrations in coal tar or petroleum products. Thus, the ratio of retene to chrysene can be used to determine whether coal fines are present in a soil sample and to explain some of the hydrocarbon patterns observed at sites where coal was used extensively. Further, unknown compounds can be identified and their presence used as clues to the source(s) of the chemicals.

The GC/MS data in this study were reported and utilized both qualitatively and quantitatively. First, the concentrations of MAHs, PAHs and alkylated PAHs were calculated and included in Appendix C. These concentrations were utilized to estimate contaminant levels in samples, to generate bar graphs (Appendix D) and compare compound ratios. The ratios were used to generate plots for identifying samples with similar compositions.

The GC/MS data also were used qualitatively by generating extracted ion current profiles (EICs) for selected compounds and compound groups of forensic value (Appendix E). For example, the EICs for selected “biomarker” compounds including normal alkanes, isoprenoid hydrocarbons, alkylcyclohexanes, hopanes and steranes are shown on the first page of the EIC report for each sample. These compound groups are commonly used in hydrocarbon source identifications and weathering evaluations. For example, the estimated boiling point range of a refined petroleum product, as indicated by the location of the alkanes and unresolved complex mixture (UCM) on the chromatogram, can be used to determine whether the material is kerosene, diesel, No. 6 fuel oil, or some other product. Similarly, hopanes and steranes are known to be present in crude oils and some refined petroleum products, but not found in coke oven tars and rarely found in MGP tars. Therefore, the presence of hopanes and steranes is monitored to confirm and refine the petrogenic versus pyrogenic assessment conducted with the PAH profiles.

Sample-Specific Observations

0714446-008C

Sample 0714446-008C contained a mixture of pyrogenic and petrogenic materials (see definitions). The pyrogenic material was indicated by the wide range distribution of unsubstituted mono- and polycyclic aromatic hydrocarbons (MAHs & PAHs) with the 2-ring PAHs dominant. The ratio of fluoranthene to pyrene (F/P – Table 1) as well as the double ratio plot of dibenzofuran/fluorene (D/F) to Fl/Py in Figure 1 shows that this material is very similar to tars in METAs reference library that were formed from manufactured gas plants (MGPs) utilizing carbureted water gas (CWG) processes.

The concentrations of naphthalene, methylnaphthalenes, and other low molecular weight PAHs (LPAH) were high relative to the 3-, 4-, 5-, and 6-ring PAHs (HPAHs). This suggests that the sample has not been subjected to substantial environmentally induced degradation or weathering.

The petrogenic material was indicated by an unresolved complex mixture (UCM) not easily visible in the GC/FID chromatogram, but viewable in the GC/MS alkane and alkylcyclohexane extracted ion current profiles (EICPs) in Appendix E. The presence of isoprenoid compounds including pristane and phytane as well as sesquiterpane petroleum biomarkers in the GCMS EICPs indicate that this material was produced from petroleum.

The normal alkanes were present at high levels relative to the isoprenoid hydrocarbons suggesting that this material has not been substantially weathered. Examples of common petroleum products with these features include No. 2 fuel oils and gas oil.

0801605-001D

Sample 0801605-001D also contained a mixture of pyrogenic and petrogenic materials. The pyrogenic material was again indicated by the wide range distribution of unsubstituted mono- and polycyclic aromatic hydrocarbons (MAHs & PAHs). The concentrations of MAHs, naphthalene, methylnaphthalenes, and other low molecular weight PAHs (LPAH) were again quite high compared to the 3-, 4- 5-, and 6-ring PAHs (HPAHs) suggesting that the sample has been not been subjected to substantial weathering.

The ratio of FI/Py as well as the double ratio plot in Figure 1 shows that this material is also very similar to tars in METAs reference library that were formed from MGPs utilizing CWG processes.

The petrogenic material was indicated by a UCM that eluted from about 18 minutes (C12 – dodecane) to about 40 minutes (C28 – octacosane) with a maximum at about 18 minutes (C18 – octadecane) visible in the GC/FID chromatogram as well as the GC/MS EICPs. The presence of isoprenoids, alkyl-cyclohexane hydrocarbons and sesquiterpane petroleum biomarkers in the GCMS EICPs supports the petrogenic identification of this material. The lack of normal alkanes indicates that this material has experienced substantial weathering. Examples of common petroleum products with these features include gas oil and some No. 2 fuel oils.

0801605-002D

Sample 0801605-002D contained pyrogenic and petrogenic materials similar to those seen in sample 0801605-001D, however, the pyrogenic PAHs, particularly naphthalene, were at a higher concentration relative to the petrogenic UCM. The level of weathering of both materials appears consistent with that seen in sample 0801605-001D.

Discussion

All three soil samples showed both pyrogenic and petrogenic characteristics with some similarities and some differences. The pyrogenic material in all three samples appears to be CWG process-derived as the samples correlate well with CWG tars in META's reference library as seen in Figure 1. However, the mean FI/Py ratio of the three samples was 0.572 with a percent relative standard deviation of 15.1%. This value is higher than should be expected from three similar tars. The PAH ratios of laboratory duplicates are very similar, while all of the PAH ratios of the three samples appear to be somewhat different (Table 1). Therefore, while all of the samples are dominated by similar pyrogenic tar-like materials, each is slightly different from the others.

As the material in all three samples appears to be MGP derived, the variation among the samples may have been due to differences in the CWG process over time. For example, operation of the gas generation system and carburetor at slightly lower temperatures could account for lower FI/Py ratios.

The petrogenic material in all three samples also appears similar, but sample 0714446-008C

shows some variability. The material in all three samples appears to be a heavy petroleum distillate, however, two of the samples, 0801605-001D and -002D contain sesquiterpane biomarkers in a similar pattern, while the sesquiterpane distribution in sample 0714446-008C appears different. A 17 point radial plot of various sesquiterpane ratios in Figure 2 shows the similarities and differences of the petrogenic material between the three samples.

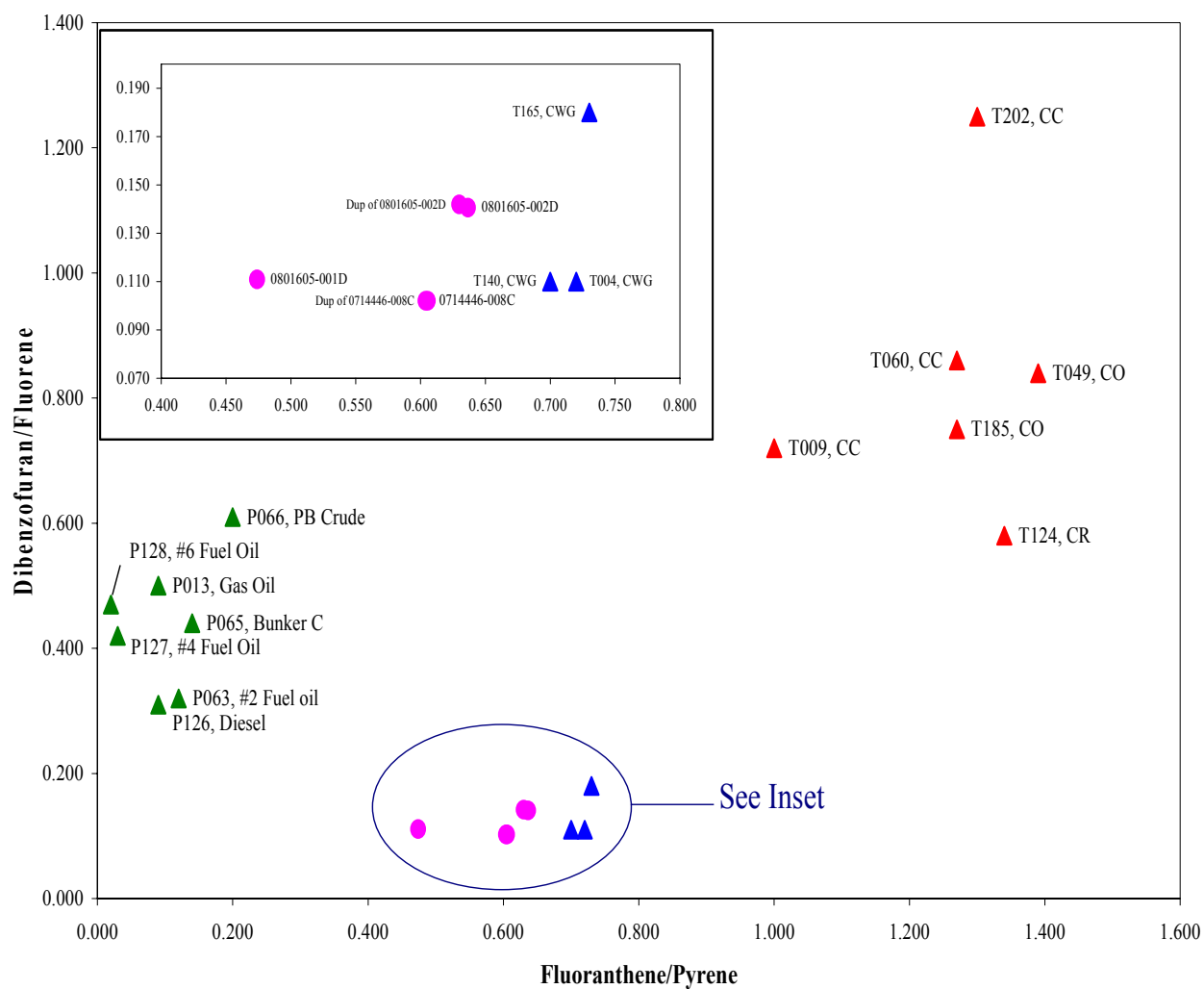
It appears that samples 0801605-001D and -002D contain a different petroleum distillate than sample 0714446-008C. Diesel fuels and gas oil were commonly used as a gas enriching agent during the CWG generation process, and the actual product used at an MGP typically varied over time due to factors such as price and availability. It is not unusual to see multiple petroleum distillate signatures on a former MGP site that utilized the CWG process.

Table 1. Selected Source and Weathering Ratios

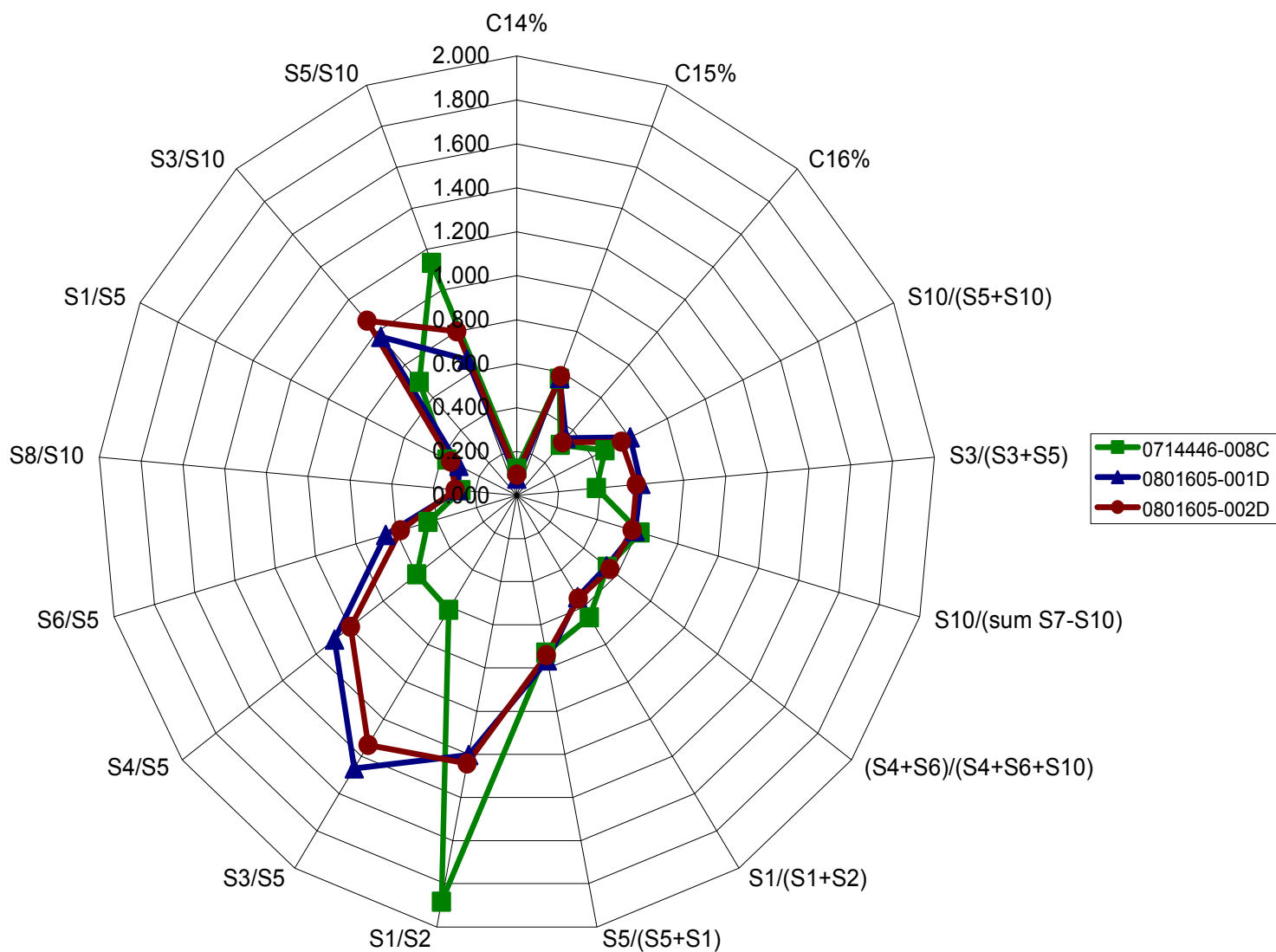
	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA	BF/MP
0714446-008C	0.604	0.102	2.023	2.324	1.477	0.607	0.377	0.293
Dup of 0714446-008C	0.606	0.102	2.019	2.373	1.525	0.615	0.374	0.295
0801605-001D	0.474	0.111	NC	NC	1.575	0.558	0.383	0.216
0801605-002D	0.637	0.141	NC	NC	1.578	0.468	0.342	0.347
Dup of 0801605-002D	0.630	0.142	NC	NC	1.576	0.478	0.341	0.338

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	heptadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes
BF/MP	benzofluorenes/methylpyrenes
NC	Not calculable

Figure 1. Selected Diagnostic Ratios – Fl/Py v. D/F

TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CR Creosote
 CWG Carbureted Water Gas Tar
 ● Field Samples

Figure 2. Sesquiterpane Areas, Ratios and Relationships

Sesquiterpane Areas	Abrv.	0714446-008C	0801605-002D	0801605-001D
C14 - Sesquiterpane 1	S1	18737	81948	333049
C14 - Sesquiterpane 2	S2	9948	68117	267844
C15 - Sesquiterpane 3	S3	30950	390765	1272105
C15 - Sesquiterpane 4	S4	30190	290924	943821
C15 - Sesquiterpane 5	S5	50466	266850	950575
C15 - Sesquiterpane 6	S6	22255	173737	548843
C16 - Sesquiterpane 7	S7	10372	72988	222968
C16 - Sesquiterpane 8	S8	11939	112792	351573
C16 - Sesquiterpane 9	S9	5951	98529	311995
C16 - Sesquiterpane 10	S10	44549	402688	1189859

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

McNicoll, D., Tousignant, L.P., Augustine, P. "Facts and Fallacies: Petroleum Degradation in a Subsurface Environment." Contaminated Soil Sediment and Water, 17-21, June, July 2001

"Chemical Fingerprinting of Hydrocarbons," in: Introduction to Environmental Forensics. B.L. Murphy and R.D. Morrison editors, Academic Press, San Diego, CA 2002.

Mauro, D.M., "Chemical Source Attribution at former MGP Sites," EPRI Report 1000728, December 2000.

Appendix A

Chain of Custody

H2M LABS, INC.

575 Broad Hollow Road
 Melville, NY 11747-5076
 (631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
 49 Clarendon Street

TEL: (617) 923-4662
 FAX:

H2M Client : KEY-URS

Watertown, Massachusetts 02472

Acct #:

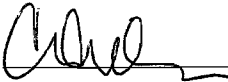
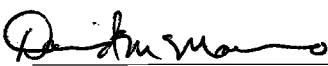
27-Dec-07

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests			
0714446-008C	Soil	12/19/2007 12:20:00 PM	4-OZJAR				HC071228-01

Comments:

PLEASE ANALYZE FOR GC/MS FINGERPRINT (GC/MS and GC/FID) QUANT/PRODUCT ID/ CATAGORIZE/SOURCE. IF YOU HAVE ANY QUESTIONS PLEASE CONTACT JENNIFER ARACRI (631) 694-3040 EXT.1211. THANK YOU!

intact
 16.2°C

Date/Time		Date/Time	
Relinquished by: 	12/27/07 17:00	Received by: 	12/28/07 10:00 AM
Relinquished by: _____	_____	Received by: _____	_____

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Prep Method	Cleanup Method	Analysis Method	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
HC071228-01	0714446-008C	Soil	2508		4007/4008	12/19/2007	12/28/2007	H09010-60	1 x 4 oz jar		H2M	KEY-URS

Logged By: HLDate: 1/3/08Reviewed By: HLDate: 1/3/08

META Environmental, Inc.
Sample Receipt Checklist

Receipt date: 12/28/07
 Login date: 12/28/07
 Login personnel: DM

Client Information:

Company Name: H2M Labs, Inc
 Project Manager: Jennifer Aracri
 Project Name: Key - URS

Shipping Information:

How were samples received? UPS FedEx DHL Other:
 Number of coolers: 1
 Internal temperature of coolers: 16.2 °C
 Was ice present? Yes / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

No Ice

Documentation:

Was a Chain of Custody present? Yes / No
 Was it signed? Yes / No
 Was all project information present on the COC? Yes / No
 Was a bill of lading or shipping label retained? Yes / No

Sample Information:

Number of sample containers: 1
 Does this match the COC? Yes / No
 Were all sample containers Intact? Yes / No

If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / No / NA

Comments:

Custodian: DM 12/28/07
 Project Manager: Jennifer A. Aracri

H2M LABS, INC.

575 Broad Hollow Road
 Melville, NY 11747-5076
 (631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
 49 Clarendon Street

TEL: (617) 923-4662
 FAX:

H2M Client : KEY-URS

Watertown, Massachusetts 02472

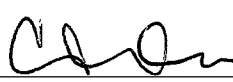
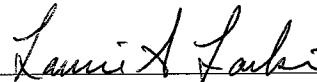
Acct #:

17-Jan-08

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests					
0801605-001D	Soil	1/16/2008 3:15:00 PM	4 2 OZ JAR						
0801605-002D	Soil	1/16/2008 3:30:00 PM	4 2 OZ JAR						

anal
 1/17/08

Comments: Please analyze for GC/MS FINGERPRINT (GC/MS and GC/FID) QUANT/ PRODUCT ID/ CATAGORIZE/ SOURCE. If you have any questions please contact Jennifer Aracri at (631) 694-3040 ext1211. THANK YOU!

Relinquished by: 	Date/Time: 1/17/08 17:00	Received by: 	Date/Time:
Relinquished by: _____		Received by: _____	

Temp. upon Receipt 2.0°C

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Prep Method	Cleanup Method	Analysis Method	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
HC080118-01	0801605-001D	Soil	2508		4007/4008	1/16/2008	1/18/2008	H09010-60	1 x 4 oz jar		H2M	KEY-URS
HC080118-02	0801605-002D	Soil	2508		4007/4008	1/16/2008	1/18/2008	H09010-60	1 x 4 oz jar		H2M	KEY-URS

Logged By:

u

Date:

1/18/2008

Reviewed By:

jll

Date:

1/21/08

META Environmental, Inc.
Sample Receipt Checklist

Receipt date: 1-18-2008Login date: ↓Login personnel: LAURIE A LARKIN**Client Information:**Company Name: H2M LABS INCProject Manager: JENNIFER ARACIProject Name: KEY-VRS**Shipping Information:**How were samples received? UPS FedEx DHL Other:Number of coolers: 1Internal temperature of coolers: 2.0°CWas ice present? Yes / No ICE PACKS*Note: if cooler is outside the 2-6° range, META's project manager should be notified.***Documentation:**Was a Chain of Custody present? Yes / NoWas it signed? Yes / NoWas all project information present on the COC? Yes / NoWas a bill of lading or shipping label retained? Yes / No**Sample Information:**Number of sample containers: 2Does this match the COC? Yes / NoWere all sample containers Intact? Yes / No

If no, list samples and problems:

*Note: if samples are damaged, META's project manager should be notified.*For aqueous 40ml Voas; was headspace present? Yes / No / NA**Comments:**Custodian: Laurie A LarkinProject Manager: Jennifer Araci

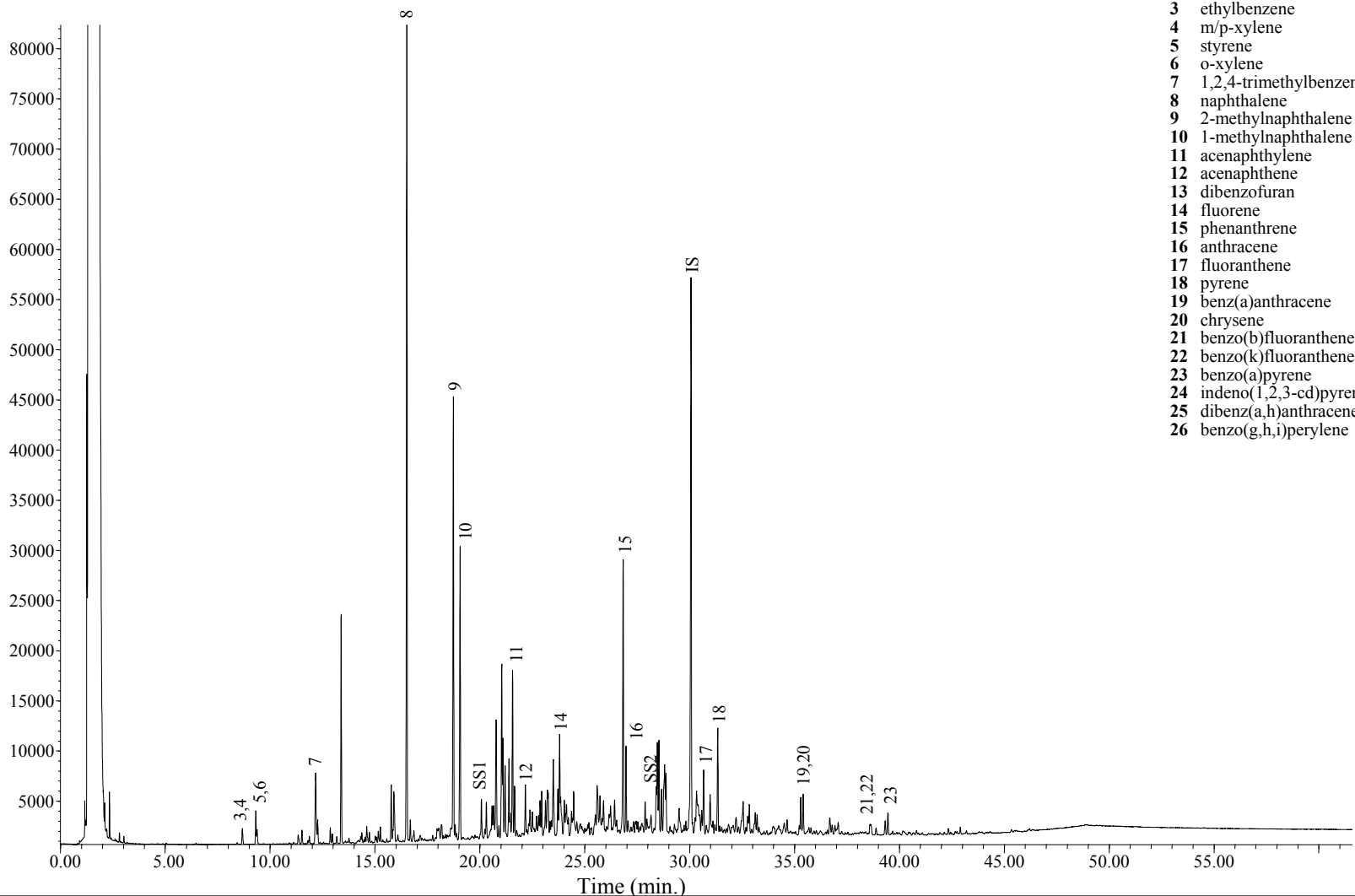
Appendix B

GC/FID Fingerprints

GC/FID Fingerprint

App Page 578 of 749

C010323.D\FID1A



Extraction Date: 01/03/2008

Analysis Date: 01/04/2008

Field ID: 0714446-008C

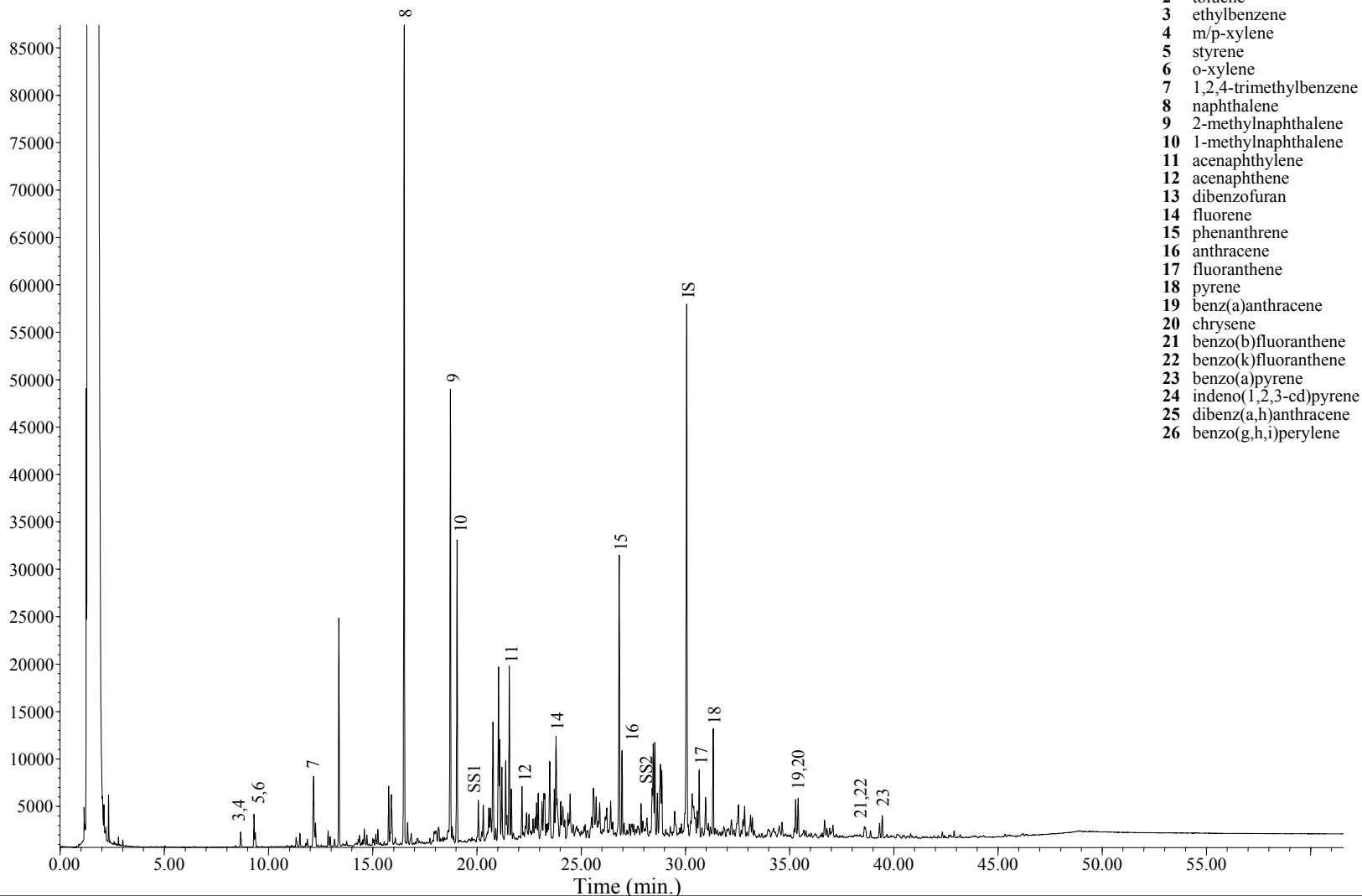
Laboratory ID: HC071228-01-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 579 of 749

C010324.D\FID1A



Extraction Date: 01/03/2008

Analysis Date: 01/04/2008

IS - 5- α -androstande
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0714446-008C

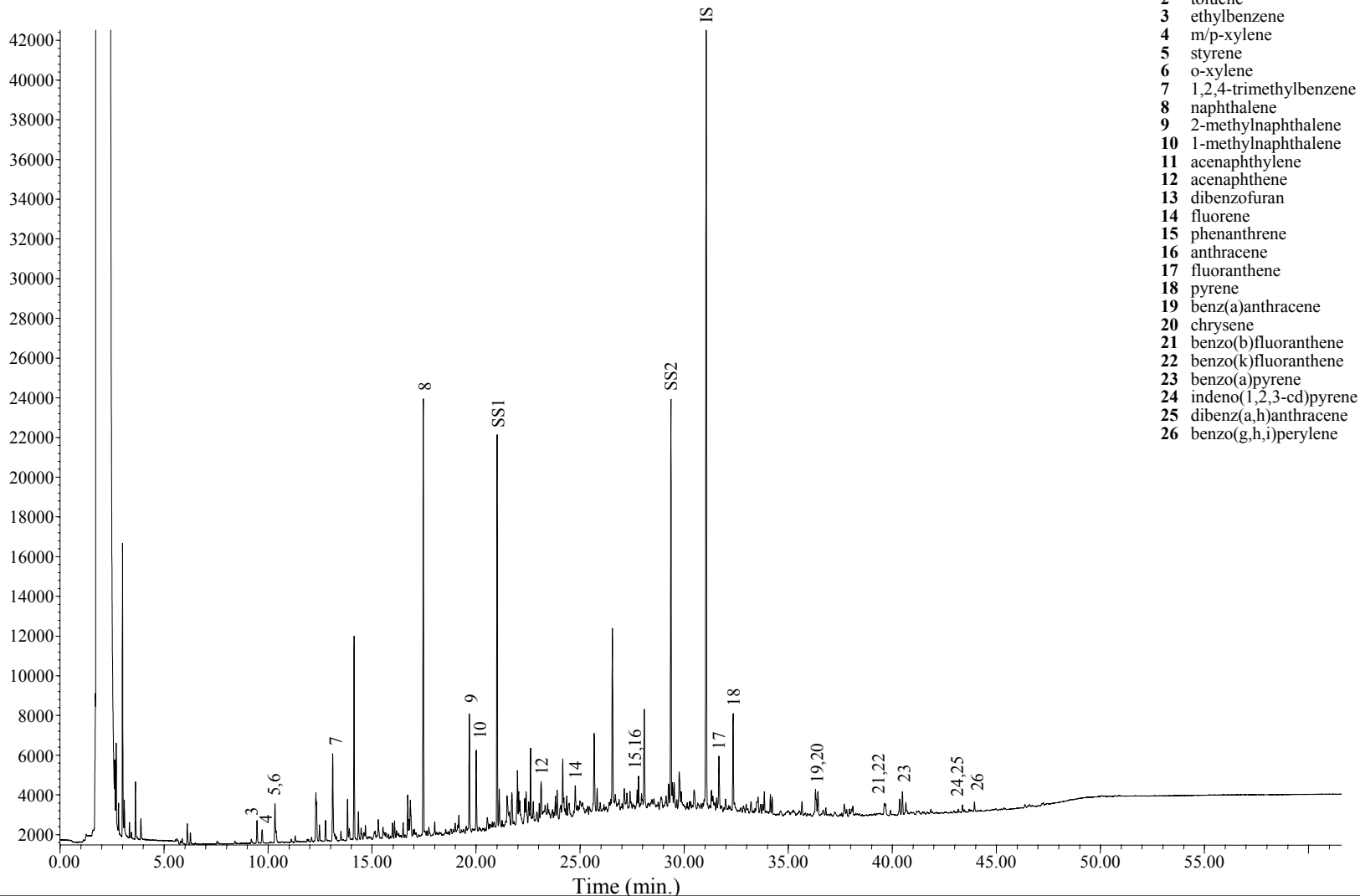
Laboratory ID: HC071228-01DUP-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 580 of 749

C012113.D\FID2B



Extraction Date: 01/21/2008

Analysis Date: 01/22/2008

IS - 5-a-androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0801605-001D

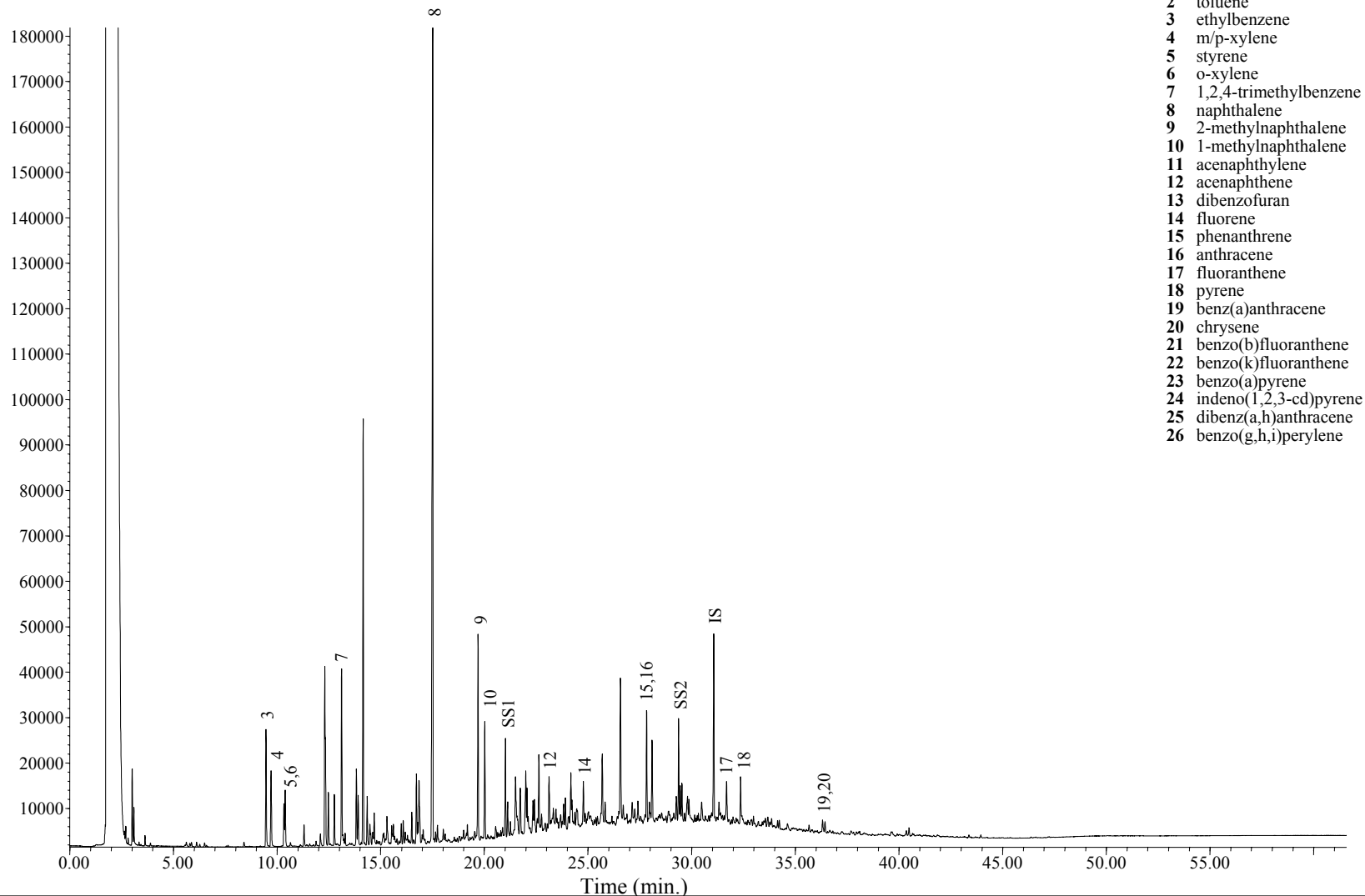
Laboratory ID: HC080118-01

Method: EPA 8100M

GC/FID Fingerprint

App Page 581 of 749

C012114.D\FID2B



Extraction Date: 01/21/2008

Analysis Date: 01/22/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0801605-002D

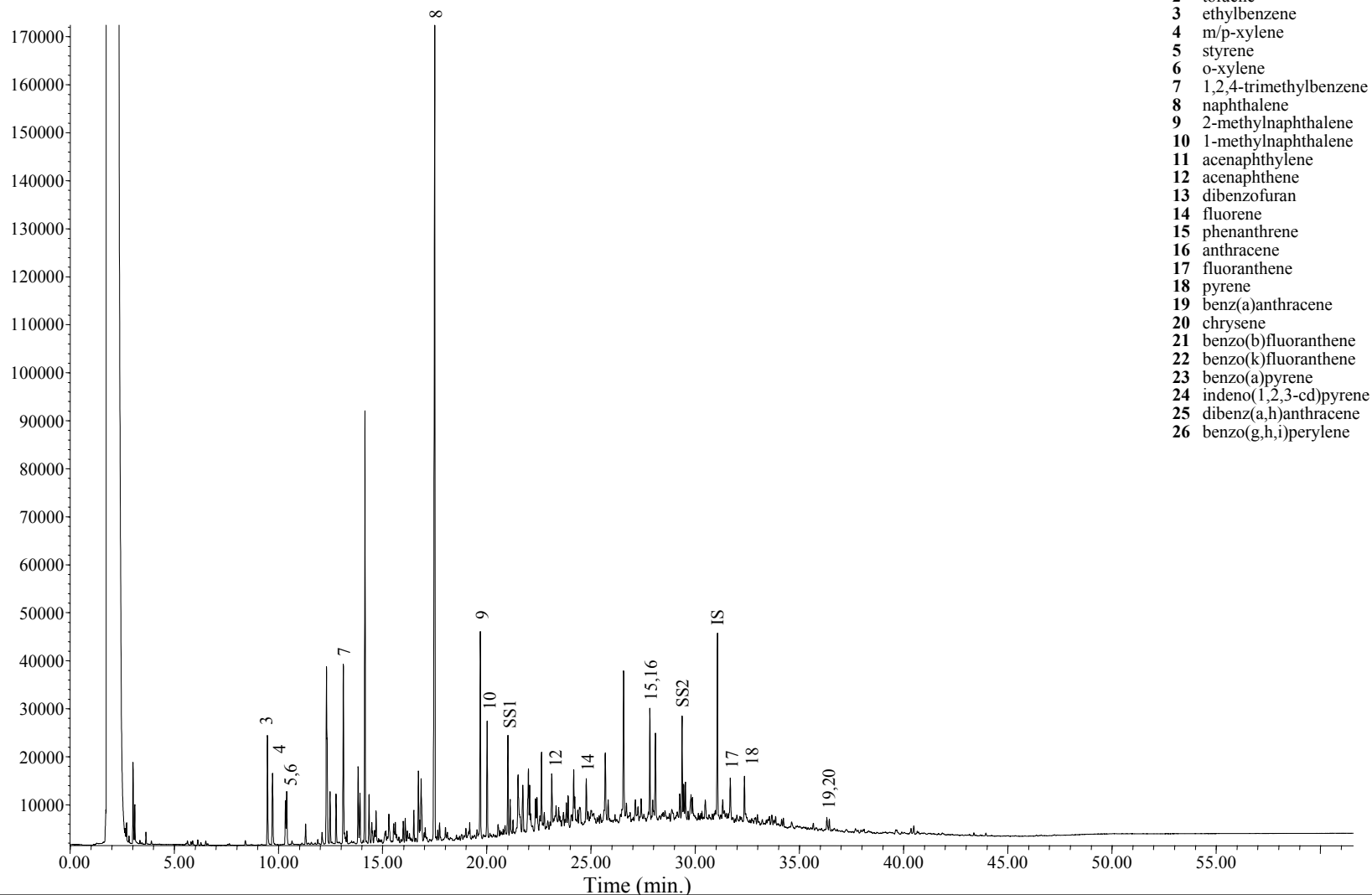
Laboratory ID: HC080118-02

Method: EPA 8100M

GC/FID Fingerprint

App Page 582 of 749

C012115.D\FID2B



Extraction Date: 12/11/2007

Analysis Date: 12/11/2007

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: 0801605-002D

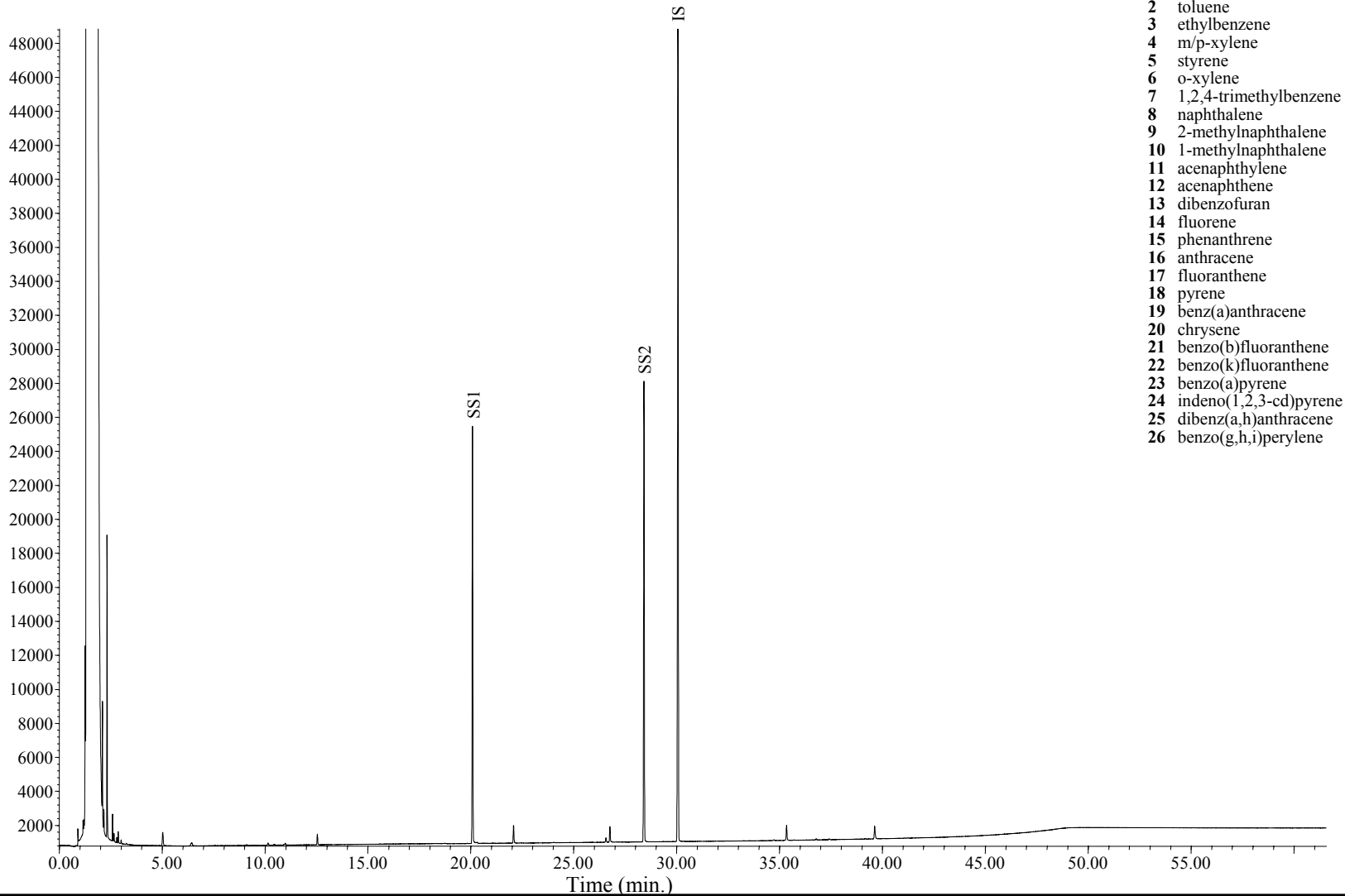
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Method: EPA 8100M

GC/FID Fingerprint

App Page 583 of 749

C010306.D\FID1A



Extraction Date: 01/03/2008

Analysis Date: 01/03/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: Soil Blank

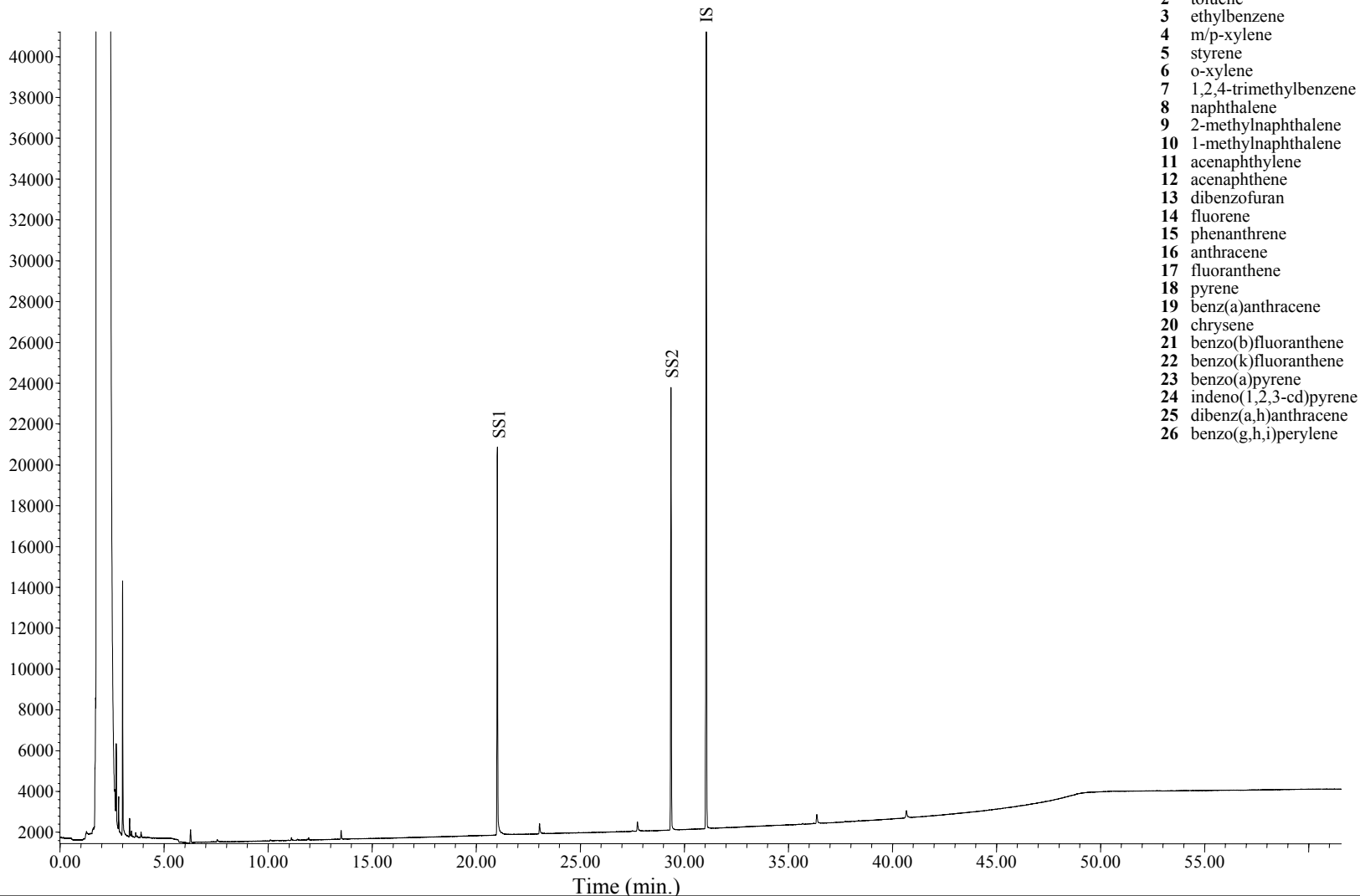
Laboratory ID: QC080103-SB1

Method: EPA 8100M

GC/FID Fingerprint

App Page 584 of 749

C012111.D\FID2B



Extraction Date: 01/21/2008

Analysis Date: 01/22/2008

IS - 5- α -androstane
 SS1 - 2-fluorobiphenyl
 SS2 - o-terphenyl

Field ID: Soil Blank

Laboratory ID: QC080122-SB

Method: EPA 8100M

Appendix C

MAH/PAH Concentrations

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0714446-008C

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC071228-01-D2		
File ID:	E012106.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	12/19/2007	Decanted:	None
Date Received:	12/28/2007		
Date Prepared:	1/3/2008	Sample Size (g):	2.06
Date Cleanup:	NA	Percent Solid:	97%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	20.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.194	0.100	0.050	
Toluene	U	0.201	0.100	
Ethylbenzene	0.786	0.100	0.050	
m/p-Xylenes	7.13	0.100	0.050	
Styrene	15.4	0.201	0.100	
o-Xylene	5.93	0.100	0.050	
Isopropylbenzene	0.095 J	0.100	0.050	
n-Propylbenzene	0.630	0.100	0.050	
1,3,5-Trimethylbenzene	5.68	0.100	0.050	
1,2,4-Trimethylbenzene	16.4	0.100	0.050	
t-Butylbenzene	U	0.100	0.050	
sec-Butylbenzene	0.050 J	0.100	0.050	
p-Isopropyltoluene	0.841	0.100	0.050	
n-Butylbenzene	0.682	0.100	0.050	
C1 - Benzene	U	0.201	0.100	
C2 - Benzene	6.38 B	0.100	0.050	
C3 - Benzene	14.4 B	0.100	0.050	
C4 - Benzene	7.22	0.100	0.050	
C5 - Benzene	2.45	0.100	0.050	
trans-Decalin	0.135	0.100	0.050	
cis-Decalin	U	0.100	0.050	
Naphthalene	258 B	0.100	0.050	
2-Methylnaphthalene	174 B	0.100	0.050	
1-Methylnaphthalene	118 B	0.100	0.050	
C1 - Naphthalene	175 B	0.100	0.050	
C2 - Naphthalene	121 B	0.100	0.050	
C3- Naphthalene	48.5	0.100	0.050	
C4- Naphthalene	15.0	0.100	0.050	
Acenaphthylene	79.8	0.100	0.050	
Acenaphthene	10.2	0.100	0.050	
Dibenzofuran	4.37	0.100	0.050	
Fluorene	42.8	0.100	0.050	
C1 - Fluorene	37.0	0.100	0.050	
C2 - Fluorene	24.8	0.100	0.050	
C3 - Fluorene	9.91	0.100	0.050	
Phenanthrene	120 B	0.100	0.050	
Anthracene	46.5	0.100	0.050	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0714446-008C

Client: H2M	Preparation Method: EPA 3570
Project: Key - URS	Cleanup Method(s): NA
	Analysis Method: EPA 8270M
Lab ID: HC071228-01-D2	
File ID: E012106.D	Matrix: Soil
	Preservation: None
Date Sampled: 12/19/2007	Decanted: None
Date Received: 12/28/2007	
Date Prepared: 1/3/2008	Sample Size (g): 2.06
Date Cleanup: NA	Percent Solid: 97%
Date Analyzed: 1/21/2008	Extract Volume (µl): 2000
Instrument: EI Camino	Prep DF: 1.00
Operator: JAR	Analysis DF: 20.00
	Injection Volume (µl): 1.00
Batch QC: QC080103-SB1	

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	112 B	0.100	0.050	
C2 - Phenanthrene/Anthracene	47.8 B	0.100	0.050	
C3 - Phenanthrene/Anthracene	12.7 B	0.100	0.050	
C4 - Phenanthrene/Anthracene	3.05	0.100	0.050	
Dibenzothiophene	17.0	0.100	0.050	
C1 - Dibenzothiophene	24.7	0.100	0.050	
C2 - Dibenzothiophene	18.0	0.100	0.050	
C3 - Dibenzothiophene	7.71	0.100	0.050	
C4 - Dibenzothiophene	2.11	0.100	0.050	
Benzo(b)naphtho(2,1-d)thiophene	3.72	0.100	0.050	
Fluoranthene	30.8	0.100	0.050	
Pyrene	51.0	0.100	0.050	
C1 - Fluoranthene/Pyrene	55.9	0.100	0.050	
C2 - Fluoranthene/Pyrene	19.5	0.100	0.050	
C3 - Fluoranthene/Pyrene	6.69	0.100	0.050	
Benz[a]anthracene	17.4	0.100	0.050	
Chrysene*	19.5	0.100	0.050	
C1 - Benz(a)anthracene/Chrysene	16.3	0.100	0.050	
C2 - Benz(a)anthracene/Chrysene	6.59	0.100	0.050	
C3 - Benz(a)anthracene/Chrysene	2.02	0.100	0.050	
C4 - Benz(a)anthracene/Chrysene	0.591	0.100	0.050	
Benzo[b]fluoranthene	3.84	0.100	0.050	
Benzo[j/k]fluoranthene	5.42	0.100	0.050	
Benzo(e)pyrene	4.94	0.100	0.050	
Benzo[a]pyrene	9.9	0.100	0.050	
Perylene	1.27	0.100	0.050	
Indeno[1,2,3-cd]pyrene	3.03	0.100	0.050	
Dibenz[a,h]anthracene	0.951	0.100	0.050	
Benzo[g,h,i]perylene	2.98	0.100	0.050	
Coronene	0.779	0.100	0.050	
Retene	U	0.100	0.050	
Benzo(b/c)fluorenes	6.91	0.100	0.050	
2-Methylpyrene	8.09	0.100	0.050	
4-Methylpyrene	6.91	0.100	0.050	
1-Methylpyrene	8.56	0.100	0.050	
Heptadecane	9.59 B	0.201	0.100	
Pristane	4.74 B	0.100	0.050	
Octadecane	7.46 B	0.201	0.100	
Phytane	3.21 B	0.100	0.050	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0714446-008C

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
Lab ID	HC071228-01-D2	Analysis Method:	EPA 8270M
File ID:	E012106.D	Matrix:	Soil
Date Sampled:	12/19/2007	Preservation:	None
Date Received:	12/28/2007	Decanted:	None
Date Prepared:	1/3/2008	Sample Size (g):	2.06
Date Cleanup:	NA	Percent Solid:	97%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	20.00
Batch QC:	QC080103-SB1	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	1.75	0.100	0.050	
2,6,10-trimethyltridecane	3.11	0.100	0.050	
Norpristane	3.02	0.100	0.050	
Total PAH (16)	702	0.100	0.050	
Total PAH (42)	1,500	0.100	0.050	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	68	50 - 120
Phenanthrene-d10	72	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-01		
File ID:	E012206.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	1/16/2008	Decanted:	None
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.17
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.081 B	0.005	0.002	
Toluene	0.039 B	0.010	0.005	
Ethylbenzene	1.02	0.005	0.002	
m/p-Xylenes	0.700	0.005	0.002	
Styrene	3.84 B	0.010	0.005	
o-Xylene	0.402	0.005	0.002	
Isopropylbenzene	0.346	0.005	0.002	
n-Propylbenzene	0.183	0.005	0.002	
1,3,5-Trimethylbenzene	0.767	0.005	0.002	
1,2,4-Trimethylbenzene	3.34	0.005	0.002	
t-Butylbenzene	U	0.005	0.002	
sec-Butylbenzene	0.025	0.005	0.002	
p-Isopropyltoluene	0.306	0.005	0.002	
n-Butylbenzene	0.235	0.005	0.002	
C1 - Benzene	0.027 B	0.010	0.005	
C2 - Benzene	0.909	0.005	0.002	
C3 - Benzene	4.13	0.005	0.002	
C4 - Benzene	1.81	0.005	0.002	
C5 - Benzene	0.353	0.005	0.002	
trans-Decalin	0.075	0.005	0.002	
cis-Decalin	U	0.005	0.002	
Naphthalene	13.6 B	0.005	0.002	
2-Methylnaphthalene	4.77 B	0.005	0.002	
1-Methylnaphthalene	3.17	0.005	0.002	
C1 - Naphthalene	4.75	0.005	0.002	
C2 - Naphthalene	3.33	0.005	0.002	
C3- Naphthalene	2.31	0.005	0.002	
C4- Naphthalene	1.17	0.005	0.002	
Acenaphthylene	1.89	0.005	0.002	
Acenaphthene	1.23	0.005	0.002	
Dibenzofuran	0.096	0.005	0.002	
Fluorene	0.866	0.005	0.002	
C1 - Fluorene	0.942	0.005	0.002	
C2 - Fluorene	0.958	0.005	0.002	
C3 - Fluorene	0.555	0.005	0.002	
Phenanthrene	1.53	0.005	0.002	
Anthracene	1.05	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-01		
File ID:	E012206.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	1/16/2008	Decanted:	None
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.17
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	2.88	0.005	0.002	
C2 - Phenanthrene/Anthracene	2.02	0.005	0.002	
C3 - Phenanthrene/Anthracene	0.883	0.005	0.002	
C4 - Phenanthrene/Anthracene	0.225	0.005	0.002	
Dibenzothiophene	0.270	0.005	0.002	
C1 - Dibenzothiophene	0.641	0.005	0.002	
C2 - Dibenzothiophene	0.774	0.005	0.002	
C3 - Dibenzothiophene	0.493	0.005	0.002	
C4 - Dibenzothiophene	0.144	0.005	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.235	0.005	0.002	
Fluoranthene	2.19	0.005	0.002	
Pyrene	4.62	0.005	0.002	
C1 - Fluoranthene/Pyrene	4.04	0.005	0.002	
C2 - Fluoranthene/Pyrene	1.49	0.005	0.002	
C3 - Fluoranthene/Pyrene	0.383	0.005	0.002	
Benz[a]anthracene	1.34	0.005	0.002	
Chrysene*	1.41	0.005	0.002	
C1 - Benz(a)anthracene/Chrysene	1.53	0.005	0.002	
C2 - Benz(a)anthracene/Chrysene	0.533	0.005	0.002	
C3 - Benz(a)anthracene/Chrysene	0.139	0.005	0.002	
C4 - Benz(a)anthracene/Chrysene	0.056	0.005	0.002	
Benzo[b]fluoranthene	0.640	0.005	0.002	
Benzo[j/k]fluoranthene	0.795	0.005	0.002	
Benzo(e)pyrene	0.833	0.005	0.002	
Benzo[a]pyrene	1.23	0.005	0.002	
Perylene	0.178	0.005	0.002	
Indeno[1,2,3-cd]pyrene	0.489	0.005	0.002	
Dibenz[a,h]anthracene	0.144	0.005	0.002	
Benzo[g,h,i]perylene	0.509	0.005	0.002	
Coronene	0.101	0.005	0.002	
Retene	0.070	0.005	0.002	
Benzo(b/c)fluorenes	0.425	0.005	0.002	
2-Methylpyrene	0.665	0.005	0.002	
4-Methylpyrene	0.713	0.005	0.002	
1-Methylpyrene	0.593	0.005	0.002	
Heptadecane	BU	0.010	0.005	
Pristane	9.51	0.005	0.002	
Octadecane	BU	0.010	0.005	
Phytane	6.04	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-01		
File ID:	E012206.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	1/16/2008	Decanted:	None
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.17
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	1.32	0.005	0.002	
2,6,10-trimethyltridecane	2.57	0.005	0.002	
Norpristane	3.48	0.005	0.002	
Total PAH (16)	33.5	0.005	0.002	
Total PAH (42)	65.2	0.005	0.002	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	72	50 - 120
Phenanthrene-d10	78	50 - 120
Perylene-d12	73	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
Lab ID	HC080118-02	Analysis Method:	EPA 8270M
File ID:	E012208.D	Matrix:	Soil
Date Sampled:	1/16/2008	Preservation:	None
Date Received:	1/18/2008	Decanted:	None
Date Prepared:	1/21/2008	Sample Size (g):	2.20
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.062 B	0.005	0.002	
Toluene	0.050 B	0.010	0.005	
Ethylbenzene	15.7	0.005	0.002	
m/p-Xylenes	13.6	0.005	0.002	
Styrene	22.0 DB	0.010	0.005	
o-Xylene	8.87	0.005	0.002	
Isopropylbenzene	4.2	0.005	0.002	
n-Propylbenzene	2.03	0.005	0.002	
1,3,5-Trimethylbenzene	8.69	0.005	0.002	
1,2,4-Trimethylbenzene	31.2 D	0.005	0.002	
t-Butylbenzene	U	0.005	0.002	
sec-Butylbenzene	0.212	0.005	0.002	
p-Isopropyltoluene	2.55	0.005	0.002	
n-Butylbenzene	1.95	0.005	0.002	
C1 - Benzene	0.030 B	0.010	0.005	
C2 - Benzene	23.8	0.005	0.002	
C3 - Benzene	46.8 D	0.005	0.002	
C4 - Benzene	13.6	0.005	0.002	
C5 - Benzene	1.72	0.005	0.002	
trans-Decalin	0.550	0.005	0.002	
cis-Decalin	0.027	0.005	0.002	
Naphthalene	152 DB	0.005	0.002	
2-Methylnaphthalene	39.6 DB	0.005	0.002	
1-Methylnaphthalene	22.1 D	0.005	0.002	
C1 - Naphthalene	36.9 D	0.005	0.002	
C2 - Naphthalene	18.0	0.005	0.002	
C3- Naphthalene	12.5	0.005	0.002	
C4- Naphthalene	5.25	0.005	0.002	
Acenaphthylene	3.74	0.005	0.002	
Acenaphthene	2.94	0.005	0.002	
Dibenzofuran	0.904	0.005	0.002	
Fluorene	6.43	0.005	0.002	
C1 - Fluorene	4.69	0.005	0.002	
C2 - Fluorene	3.62	0.005	0.002	
C3 - Fluorene	2.08	0.005	0.002	
Phenanthrene	16.2	0.005	0.002	
Anthracene	4.41	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-02		
File ID:	E012208.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	1/16/2008		
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.20
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	14.9	0.005	0.002	
C2 - Phenanthrene/Anthracene	7.26	0.005	0.002	
C3 - Phenanthrene/Anthracene	2.69	0.005	0.002	
C4 - Phenanthrene/Anthracene	0.716	0.005	0.002	
Dibenzothiophene	2.38	0.005	0.002	
C1 - Dibenzothiophene	3.18	0.005	0.002	
C2 - Dibenzothiophene	2.48	0.005	0.002	
C3 - Dibenzothiophene	1.26	0.005	0.002	
C4 - Dibenzothiophene	0.418	0.005	0.002	
Benzo(b)naphtho(2,1-d)thiophene	0.527	0.005	0.002	
Fluoranthene	5.5	0.005	0.002	
Pyrene	8.64	0.005	0.002	
C1 - Fluoranthene/Pyrene	7.38	0.005	0.002	
C2 - Fluoranthene/Pyrene	2.28	0.005	0.002	
C3 - Fluoranthene/Pyrene	0.666	0.005	0.002	
Benz[a]anthracene	2.78	0.005	0.002	
Chrysene*	2.75	0.005	0.002	
C1 - Benz(a)anthracene/Chrysene	2.19	0.005	0.002	
C2 - Benz(a)anthracene/Chrysene	0.772	0.005	0.002	
C3 - Benz(a)anthracene/Chrysene	0.231	0.005	0.002	
C4 - Benz(a)anthracene/Chrysene	0.110	0.005	0.002	
Benzo[b]fluoranthene	0.905	0.005	0.002	
Benzo[j/k]fluoranthene	1.19	0.005	0.002	
Benzo(e)pyrene	1.18	0.005	0.002	
Benzo[a]pyrene	1.84	0.005	0.002	
Perylene	0.264	0.005	0.002	
Indeno[1,2,3-cd]pyrene	0.705	0.005	0.002	
Dibenz[a,h]anthracene	0.203	0.005	0.002	
Benzo[g,h,i]perylene	0.711	0.005	0.002	
Coronene	0.131	0.005	0.002	
Retene	0.274	0.005	0.002	
Benzo(b/c)fluorenes	1.09	0.005	0.002	
2-Methylpyrene	1.1	0.005	0.002	
4-Methylpyrene	1.0	0.005	0.002	
1-Methylpyrene	1.04	0.005	0.002	
Heptadecane	BU	0.010	0.005	
Pristane	39.3 D	0.005	0.002	
Octadecane	BU	0.010	0.005	
Phytane	24.9 D	0.005	0.002	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-02		
File ID:	E012208.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	1/16/2008	Decanted:	None
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.20
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	5.2	0.005	0.002	
2,6,10-trimethyltridecane	9.88	0.005	0.002	
Norpristane	12.2	0.005	0.002	
Total PAH (16)	211	0.005	0.002	
Total PAH (42)	345	0.005	0.002	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	73	50 - 120
Phenanthrene-d10	81	50 - 120
Perylene-d12	79	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080103-SB1		
File ID:	E012104.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	U	0.005	0.003	
Toluene	U	0.010	0.005	
Ethylbenzene	U	0.005	0.003	
m/p-Xylenes	U	0.005	0.003	
Styrene	U	0.010	0.005	
o-Xylene	U	0.005	0.003	
Isopropylbenzene	U	0.005	0.003	
n-Propylbenzene	U	0.005	0.003	
1,3,5-Trimethylbenzene	U	0.005	0.003	
1,2,4-Trimethylbenzene	U	0.005	0.003	
t-Butylbenzene	U	0.005	0.003	
sec-Butylbenzene	U	0.005	0.003	
p-Isopropyltoluene	U	0.005	0.003	
n-Butylbenzene	U	0.005	0.003	
C1 - Benzene	U	0.010	0.005	
C2 - Benzene	0.003 J	0.005	0.003	
C3 - Benzene	0.005 J	0.005	0.003	
C4 - Benzene	U	0.005	0.003	
C5 - Benzene	U	0.005	0.003	
trans-Decalin	U	0.005	0.003	
cis-Decalin	U	0.005	0.003	
Naphthalene	0.005 J	0.005	0.003	
2-Methylnaphthalene	0.015	0.005	0.003	
1-Methylnaphthalene	0.009	0.005	0.003	
C1 - Naphthalene	0.015	0.005	0.003	
C2 - Naphthalene	0.022	0.005	0.003	
C3- Naphthalene	U	0.005	0.003	
C4- Naphthalene	U	0.005	0.003	
Acenaphthylene	U	0.005	0.003	
Acenaphthene	U	0.005	0.003	
Dibenzofuran	U	0.005	0.003	
Fluorene	U	0.005	0.003	
C1 - Fluorene	U	0.005	0.003	
C2 - Fluorene	U	0.005	0.003	
C3 - Fluorene	U	0.005	0.003	
Phenanthrene	0.006	0.005	0.003	
Anthracene	U	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080103-SB1		
File ID:	E012104.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	NA		
Date Received:	NA		
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	0.010	0.005	0.003	
C2 - Phenanthrene/Anthracene	0.011	0.005	0.003	
C3 - Phenanthrene/Anthracene	0.005 J	0.005	0.003	
C4 - Phenanthrene/Anthracene	U	0.005	0.003	
Dibenzothiophene	U	0.005	0.003	
C1 - Dibenzothiophene	U	0.005	0.003	
C2 - Dibenzothiophene	U	0.005	0.003	
C3 - Dibenzothiophene	U	0.005	0.003	
C4 - Dibenzothiophene	U	0.005	0.003	
Benzo(b)naphtho(2,1-d)thiophene	U	0.005	0.003	
Fluoranthene	U	0.005	0.003	
Pyrene	U	0.005	0.003	
C1 - Fluoranthene/Pyrene	U	0.005	0.003	
C2 - Fluoranthene/Pyrene	U	0.005	0.003	
C3 - Fluoranthene/Pyrene	U	0.005	0.003	
Benz[a]anthracene	U	0.005	0.003	
Chrysene*	U	0.005	0.003	
C1 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C2 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C3 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C4 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
Benzo[b]fluoranthene	U	0.005	0.003	
Benzo[j/k]fluoranthene	U	0.005	0.003	
Benzo(e)pyrene	U	0.005	0.003	
Benzo[a]pyrene	U	0.005	0.003	
Perylene	U	0.005	0.003	
Indeno[1,2,3-cd]pyrene	U	0.005	0.003	
Dibenz[a,h]anthracene	U	0.005	0.003	
Benzo[g,h,i]perylene	U	0.005	0.003	
Coronene	U	0.005	0.003	
Retene	U	0.005	0.003	
Benzo(b/c)fluorenes	U	0.005	0.003	
2-Methylpyrene	U	0.005	0.003	
4-Methylpyrene	U	0.005	0.003	
1-Methylpyrene	U	0.005	0.003	
Heptadecane	0.009 J	0.010	0.005	
Pristane	0.011	0.005	0.003	
Octadecane	0.012	0.010	0.005	
Phytane	0.006	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080103-SB1		
File ID:	E012104.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.005	0.003	
2,6,10-trimethyltridecane	U	0.005	0.003	
Norpristane	U	0.005	0.003	
Total PAH (16)	0.011	0.005	0.003	
Total PAH (42)	0.074	0.005	0.003	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	98	50 - 120
Phenanthrene-d10	88	50 - 120
Perylene-d12	83	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
Lab ID	QC080103-SBS1	Analysis Method:	EPA 8270M
File ID:	E012105.D	Matrix:	Soil
Date Sampled:	NA	Preservation:	None
Date Received:	NA	Decanted:	None
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount				% Recovery
Benzene	5.00	4.16	0.005	0.003	83
Toluene	5.00	4.35	0.010	0.005	87
Ethylbenzene	5.00	4.2	0.005	0.003	84
m/p-Xylenes	5.00	4.28	0.005	0.003	86
Styrene	5.00	4.43	0.010	0.005	89
o-Xylene	5.00	4.4	0.005	0.003	88
Isopropylbenzene	5.00	4.34	0.005	0.003	87
n-Propylbenzene	5.00	4.2	0.005	0.003	84
1,3,5-Trimethylbenzene	5.00	4.4	0.005	0.003	88
1,2,4-Trimethylbenzene	5.00	4.26	0.005	0.003	85
t-Butylbenzene		U	0.005	0.003	
sec-Butylbenzene	5.00	4.36	0.005	0.003	87
p-Isopropyltoluene	5.00	4.38	0.005	0.003	88
n-Butylbenzene	5.00	4.38	0.005	0.003	88
C1 - Benzene		U	0.010	0.005	
C2 - Benzene		BU	0.005	0.003	
C3 - Benzene		BU	0.005	0.003	
C4 - Benzene		U	0.005	0.003	
C5 - Benzene		U	0.005	0.003	
trans-Decalin		U	0.005	0.003	
cis-Decalin		U	0.005	0.003	
Naphthalene	5.00	4.41 B	0.005	0.003	88
2-Methylnaphthalene	5.00	4.33 B	0.005	0.003	87
1-Methylnaphthalene	5.00	4.4 B	0.005	0.003	88
C1 - Naphthalene		BU	0.005	0.003	
C2 - Naphthalene		BU	0.005	0.003	
C3- Naphthalene		U	0.005	0.003	
C4- Naphthalene		U	0.005	0.003	
Acenaphthylene	5.00	4.4	0.005	0.003	88
Acenaphthene	5.00	4.49	0.005	0.003	90
Dibenzofuran	5.00	4.53	0.005	0.003	91
Fluorene	5.00	4.58	0.005	0.003	92
C1 - Fluorene		U	0.005	0.003	
C2 - Fluorene		U	0.005	0.003	
C3 - Fluorene		U	0.005	0.003	
Phenanthrene	5.00	4.33 B	0.005	0.003	87
Anthracene	5.00	4.94	0.005	0.003	99

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080103-SBS1		
File ID:	E012105.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		BU	0.005	0.003	
C2 - Phenanthrene/Anthracene		BU	0.005	0.003	
C3 - Phenanthrene/Anthracene		BU	0.005	0.003	
C4 - Phenanthrene/Anthracene		U	0.005	0.003	
Dibenzothiophene	5.00	4.51	0.005	0.003	90
C1 - Dibenzothiophene		U	0.005	0.003	
C2 - Dibenzothiophene		U	0.005	0.003	
C3 - Dibenzothiophene		U	0.005	0.003	
C4 - Dibenzothiophene		U	0.005	0.003	
Benzo(b)naphtho(2,1-d)thiophene		U	0.005	0.003	
Fluoranthene	5.00	4.79	0.005	0.003	96
Pyrene	5.00	4.7	0.005	0.003	94
C1 - Fluoranthene/Pyrene		U	0.005	0.003	
C2 - Fluoranthene/Pyrene		U	0.005	0.003	
C3 - Fluoranthene/Pyrene		U	0.005	0.003	
Benz[a]anthracene	5.00	4.45	0.005	0.003	89
Chrysene*	5.00	4.68	0.005	0.003	94
C1 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C2 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C3 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C4 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
Benzo[b]fluoranthene	5.00	4.46	0.005	0.003	89
Benzo[j/k]fluoranthene	5.00	4.82	0.005	0.003	96
Benzo(e)pyrene	5.00	4.55	0.005	0.003	91
Benzo[a]pyrene	5.00	4.45	0.005	0.003	89
Perylene		U	0.005	0.003	
Indeno[1,2,3-cd]pyrene	5.00	4.61	0.005	0.003	92
Dibenz[a,h]anthracene	5.00	4.96	0.005	0.003	99
Benzo[g,h,i]perylene	5.00	4.65	0.005	0.003	93
Coronene		U	0.005	0.003	
Retene		U	0.005	0.003	
Benzo(b/c)fluorenes		U	0.005	0.003	
2-Methylpyrene		U	0.005	0.003	
4-Methylpyrene		U	0.005	0.003	
1-Methylpyrene		U	0.005	0.003	
Heptadecane		BU	0.010	0.005	
Pristane		BU	0.005	0.003	
Octadecane		BU	0.010	0.005	
Phytane		BU	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080103-SBS1		
File ID:	E012105.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/3/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/21/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.005	0.003	
2,6,10-trimethyltridecane	U	0.005	0.003	
Norpristane	U	0.005	0.003	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	87	50 - 120
Phenanthrene-d10	86	50 - 120
Perylene-d12	79	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0714446-008C

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC071228-01DUP-D2		
File ID:	E012107.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	12/19/2007		
Date Received:	12/28/2007		
Date Prepared:	1/3/2008	Sample Size (g):	2.05
Date Cleanup:	NA	Percent Solid:	97%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	20.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				RPD
Benzene	0.207	0.101	0.051	6.5
Toluene	U	0.202	0.101	NA
Ethylbenzene	0.838	0.101	0.051	6.4
m/p-Xylenes	7.47	0.101	0.051	4.7
Styrene	16.6	0.202	0.101	7.5
o-Xylene	6.24	0.101	0.051	5.1
Isopropylbenzene	0.111	0.101	0.051	15.5
n-Propylbenzene	0.683	0.101	0.051	8.1
1,3,5-Trimethylbenzene	6.06	0.101	0.051	6.5
1,2,4-Trimethylbenzene	17.7	0.101	0.051	7.6
t-Butylbenzene	U	0.101	0.051	NA
sec-Butylbenzene	U	0.101	0.051	NA
p-Isopropyltoluene	0.917	0.101	0.051	8.6
n-Butylbenzene	0.733	0.101	0.051	7.2
C1 - Benzene	U	0.202	0.101	NA
C2 - Benzene	6.76 B	0.101	0.051	5.8
C3 - Benzene	15.6 B	0.101	0.051	8
C4 - Benzene	7.97	0.101	0.051	9.9
C5 - Benzene	2.68	0.101	0.051	9
trans-Decalin	0.136	0.101	0.051	0.7
cis-Decalin	U	0.101	0.051	NA
Naphthalene	274 B	0.101	0.051	6
2-Methylnaphthalene	190 B	0.101	0.051	8.8
1-Methylnaphthalene	130 B	0.101	0.051	9.7
C1 - Naphthalene	191 B	0.101	0.051	8.7
C2 - Naphthalene	136 B	0.101	0.051	11.7
C3- Naphthalene	54.8	0.101	0.051	12.2
C4- Naphthalene	16.9	0.101	0.051	11.9
Acenaphthylene	89.2	0.101	0.051	11.1
Acenaphthene	11.4	0.101	0.051	11.1
Dibenzofuran	4.91	0.101	0.051	11.6
Fluorene	48.1	0.101	0.051	11.7
C1 - Fluorene	42.1	0.101	0.051	12.9
C2 - Fluorene	27.8	0.101	0.051	11.4
C3 - Fluorene	11.7	0.101	0.051	16.6
Phenanthrene	133 B	0.101	0.051	10.3
Anthracene	52.2	0.101	0.051	11.6

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0714446-008C

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC071228-01DUP-D2		
File ID:	E012107.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	12/19/2007	Decanted:	None
Date Received:	12/28/2007		
Date Prepared:	1/3/2008	Sample Size (g):	2.05
Date Cleanup:	NA	Percent Solid:	97%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	20.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	126 B	0.101	0.051	11.8
C2 - Phenanthrene/Anthracene	54.3 B	0.101	0.051	12.7
C3 - Phenanthrene/Anthracene	14.4 B	0.101	0.051	12.5
C4 - Phenanthrene/Anthracene	3.48	0.101	0.051	13.2
Dibenzothiophene	19.0	0.101	0.051	11.1
C1 - Dibenzothiophene	27.9	0.101	0.051	12.2
C2 - Dibenzothiophene	20.3	0.101	0.051	12
C3 - Dibenzothiophene	8.85	0.101	0.051	13.8
C4 - Dibenzothiophene	2.31	0.101	0.051	9
Benzo(b)naphtho(2,1-d)thiophene	4.24	0.101	0.051	13.1
Fluoranthene	34.7	0.101	0.051	11.9
Pyrene	57.3	0.101	0.051	11.6
C1 - Fluoranthene/Pyrene	63.5	0.101	0.051	12.7
C2 - Fluoranthene/Pyrene	22.5	0.101	0.051	14.3
C3 - Fluoranthene/Pyrene	7.25	0.101	0.051	8
Benz[a]anthracene	19.7	0.101	0.051	12.4
Chrysene*	21.8	0.101	0.051	11.1
C1 - Benz(a)anthracene/Chrysene	18.3	0.101	0.051	11.6
C2 - Benz(a)anthracene/Chrysene	7.46	0.101	0.051	12.4
C3 - Benz(a)anthracene/Chrysene	2.35	0.101	0.051	15.1
C4 - Benz(a)anthracene/Chrysene	0.835	0.101	0.051	34.2
Benzo[b]fluoranthene	4.22	0.101	0.051	9.4
Benzo[j/k]fluoranthene	6.14	0.101	0.051	12.5
Benzo(e)pyrene	5.6	0.101	0.051	12.5
Benzo[a]pyrene	11.2	0.101	0.051	12.3
Perylene	1.45	0.101	0.051	13.2
Indeno[1,2,3-cd]pyrene	3.38	0.101	0.051	10.9
Dibenz[a,h]anthracene	1.08	0.101	0.051	12.7
Benzo[g,h,i]perylene	3.35	0.101	0.051	11.7
Coronene	0.598	0.101	0.051	26.3
Retene	U	0.101	0.051	NA
Benzo(b/c)fluorenes	8.05	0.101	0.051	15.2
2-Methylpyrene	9.16	0.101	0.051	12.4
4-Methylpyrene	7.99	0.101	0.051	14.5
1-Methylpyrene	10.1	0.101	0.051	16.5
Heptadecane	10.9 B	0.202	0.101	12.8
Pristane	5.4 B	0.101	0.051	13
Octadecane	8.4 B	0.202	0.101	11.9
Phytane	3.54 B	0.101	0.051	9.8

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0714446-008C

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC071228-01DUP-D2		
File ID:	E012107.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	12/19/2007	Decanted:	None
Date Received:	12/28/2007		
Date Prepared:	1/3/2008	Sample Size (g):	2.05
Date Cleanup:	NA	Percent Solid:	97%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	20.00
		Injection Volume (µl):	1.00
Batch QC:	QC080103-SB1		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	1.93	0.101	0.051	9.8
2,6,10-trimethyltridecane	3.73	0.101	0.051	18.1
Norpristane	3.3	0.101	0.051	8.9
Total PAH (16)	771	0.101	0.051	9.4
Total PAH (42)	1,660	0.101	0.051	10.1

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	78	50 - 120
Phenanthrene-d10	82	50 - 120
Perylene-d12	96	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SB		
File ID:	E012204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.013	0.005	0.003	
Toluene	0.011	0.010	0.005	
Ethylbenzene	U	0.005	0.003	
m/p-Xylenes	U	0.005	0.003	
Styrene	0.041	0.010	0.005	
o-Xylene	U	0.005	0.003	
Isopropylbenzene	U	0.005	0.003	
n-Propylbenzene	U	0.005	0.003	
1,3,5-Trimethylbenzene	U	0.005	0.003	
1,2,4-Trimethylbenzene	U	0.005	0.003	
t-Butylbenzene	U	0.005	0.003	
sec-Butylbenzene	U	0.005	0.003	
p-Isopropyltoluene	U	0.005	0.003	
n-Butylbenzene	U	0.005	0.003	
C1 - Benzene	0.007 J	0.010	0.005	
C2 - Benzene	U	0.005	0.003	
C3 - Benzene	U	0.005	0.003	
C4 - Benzene	U	0.005	0.003	
C5 - Benzene	U	0.005	0.003	
trans-Decalin	U	0.005	0.003	
cis-Decalin	U	0.005	0.003	
Naphthalene	0.003 J	0.005	0.003	
2-Methylnaphthalene	0.003 J	0.005	0.003	
1-Methylnaphthalene	U	0.005	0.003	
C1 - Naphthalene	U	0.005	0.003	
C2 - Naphthalene	U	0.005	0.003	
C3- Naphthalene	U	0.005	0.003	
C4- Naphthalene	U	0.005	0.003	
Acenaphthylene	U	0.005	0.003	
Acenaphthene	U	0.005	0.003	
Dibenzofuran	U	0.005	0.003	
Fluorene	U	0.005	0.003	
C1 - Fluorene	U	0.005	0.003	
C2 - Fluorene	U	0.005	0.003	
C3 - Fluorene	U	0.005	0.003	
Phenanthrene	U	0.005	0.003	
Anthracene	U	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SB		
File ID:	E012204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.005	0.003	
C2 - Phenanthrene/Anthracene	U	0.005	0.003	
C3 - Phenanthrene/Anthracene	U	0.005	0.003	
C4 - Phenanthrene/Anthracene	U	0.005	0.003	
Dibenzothiophene	U	0.005	0.003	
C1 - Dibenzothiophene	U	0.005	0.003	
C2 - Dibenzothiophene	U	0.005	0.003	
C3 - Dibenzothiophene	U	0.005	0.003	
C4 - Dibenzothiophene	U	0.005	0.003	
Benzo(b)naphtho(2,1-d)thiophene	U	0.005	0.003	
Fluoranthene	U	0.005	0.003	
Pyrene	U	0.005	0.003	
C1 - Fluoranthene/Pyrene	U	0.005	0.003	
C2 - Fluoranthene/Pyrene	U	0.005	0.003	
C3 - Fluoranthene/Pyrene	U	0.005	0.003	
Benz[a]anthracene	U	0.005	0.003	
Chrysene*	U	0.005	0.003	
C1 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C2 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C3 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
C4 - Benz(a)anthracene/Chrysene	U	0.005	0.003	
Benzo[b]fluoranthene	U	0.005	0.003	
Benzo[j/k]fluoranthene	U	0.005	0.003	
Benzo(e)pyrene	U	0.005	0.003	
Benzo[a]pyrene	U	0.005	0.003	
Perylene	U	0.005	0.003	
Indeno[1,2,3-cd]pyrene	U	0.005	0.003	
Dibenz[a,h]anthracene	U	0.005	0.003	
Benzo[g,h,i]perylene	U	0.005	0.003	
Coronene	U	0.005	0.003	
Retene	U	0.005	0.003	
Benzo(b/c)fluorenes	U	0.005	0.003	
2-Methylpyrene	U	0.005	0.003	
4-Methylpyrene	U	0.005	0.003	
1-Methylpyrene	U	0.005	0.003	
Heptadecane	0.012	0.010	0.005	
Pristane	U	0.005	0.003	
Octadecane	0.011	0.010	0.005	
Phytane	U	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SB		
File ID:	E012204.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.005	0.003	
2,6,10-trimethyltridecane	U	0.005	0.003	
Norpristane	U	0.005	0.003	
Total PAH (16)	0.003	0.005	0.003	
Total PAH (42)	0.003	0.005	0.003	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	84	50 - 120
Phenanthrene-d10	77	50 - 120
Perylene-d12	74	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SBS		
File ID:	E012205.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount				% Recovery
Benzene	5.00	3.72 B	0.005	0.003	74
Toluene	5.00	4.07 B	0.010	0.005	81
Ethylbenzene	5.00	3.99	0.005	0.003	80
m/p-Xylenes	5.00	4.03	0.005	0.003	81
Styrene	5.00	4.21 B	0.010	0.005	84
o-Xylene	5.00	4.15	0.005	0.003	83
Isopropylbenzene	5.00	4.17	0.005	0.003	83
n-Propylbenzene	5.00	4.05	0.005	0.003	81
1,3,5-Trimethylbenzene	5.00	4.19	0.005	0.003	84
1,2,4-Trimethylbenzene	5.00	4.05	0.005	0.003	81
t-Butylbenzene		U	0.005	0.003	
sec-Butylbenzene	5.00	4.21	0.005	0.003	84
p-Isopropyltoluene	5.00	4.26	0.005	0.003	85
n-Butylbenzene	5.00	4.21	0.005	0.003	84
C1 - Benzene		BU	0.010	0.005	
C2 - Benzene		U	0.005	0.003	
C3 - Benzene		U	0.005	0.003	
C4 - Benzene		U	0.005	0.003	
C5 - Benzene		U	0.005	0.003	
trans-Decalin		U	0.005	0.003	
cis-Decalin		U	0.005	0.003	
Naphthalene	5.00	4.19 B	0.005	0.003	84
2-Methylnaphthalene	5.00	4.18 B	0.005	0.003	84
1-Methylnaphthalene	5.00	4.2	0.005	0.003	84
C1 - Naphthalene		U	0.005	0.003	
C2 - Naphthalene		U	0.005	0.003	
C3- Naphthalene		U	0.005	0.003	
C4- Naphthalene		U	0.005	0.003	
Acenaphthylene	5.00	4.33	0.005	0.003	87
Acenaphthene	5.00	4.2	0.005	0.003	84
Dibenzofuran	5.00	4.38	0.005	0.003	88
Fluorene	5.00	4.53	0.005	0.003	91
C1 - Fluorene		U	0.005	0.003	
C2 - Fluorene		U	0.005	0.003	
C3 - Fluorene		U	0.005	0.003	
Phenanthrene	5.00	4.12	0.005	0.003	82
Anthracene	5.00	4.35	0.005	0.003	87

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SBS		
File ID:	E012205.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		U	0.005	0.003	
C2 - Phenanthrene/Anthracene		U	0.005	0.003	
C3 - Phenanthrene/Anthracene		U	0.005	0.003	
C4 - Phenanthrene/Anthracene		U	0.005	0.003	
Dibenzothiophene	5.00	4.14	0.005	0.003	83
C1 - Dibenzothiophene		U	0.005	0.003	
C2 - Dibenzothiophene		U	0.005	0.003	
C3 - Dibenzothiophene		U	0.005	0.003	
C4 - Dibenzothiophene		U	0.005	0.003	
Benzo(b)naphtho(2,1-d)thiophene		U	0.005	0.003	
Fluoranthene	5.00	4.4	0.005	0.003	88
Pyrene	5.00	4.34	0.005	0.003	87
C1 - Fluoranthene/Pyrene		U	0.005	0.003	
C2 - Fluoranthene/Pyrene		U	0.005	0.003	
C3 - Fluoranthene/Pyrene		U	0.005	0.003	
Benz[a]anthracene	5.00	4.26	0.005	0.003	85
Chrysene*	5.00	4.33	0.005	0.003	87
C1 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C2 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C3 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
C4 - Benz(a)anthracene/Chrysene		U	0.005	0.003	
Benzo[b]fluoranthene	5.00	4.32	0.005	0.003	86
Benzo[j/k]fluoranthene	5.00	4.52	0.005	0.003	90
Benzo(e)pyrene	5.00	4.32	0.005	0.003	86
Benzo[a]pyrene	5.00	4.16	0.005	0.003	83
Perylene		U	0.005	0.003	
Indeno[1,2,3-cd]pyrene	5.00	4.49	0.005	0.003	90
Dibenz[a,h]anthracene	5.00	4.8	0.005	0.003	96
Benzo[g,h,i]perylene	5.00	4.25	0.005	0.003	85
Coronene		U	0.005	0.003	
Retene		U	0.005	0.003	
Benzo(b/c)fluorenes		U	0.005	0.003	
2-Methylpyrene		U	0.005	0.003	
4-Methylpyrene		U	0.005	0.003	
1-Methylpyrene		U	0.005	0.003	
Heptadecane		BU	0.010	0.005	
Pristane		U	0.005	0.003	
Octadecane		BU	0.010	0.005	
Phytane		U	0.005	0.003	

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080121-SBS		
File ID:	E012205.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	1/21/2008	Sample Size (g):	2.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	1/22/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.005	0.003	
2,6,10-trimethyltridecane	U	0.005	0.003	
Norpristane	U	0.005	0.003	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	83	50 - 120
Phenanthrene-d10	84	50 - 120
Perylene-d12	78	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-02DUP		
File ID:	E012210.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	1/16/2008		
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.14
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/23/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				RPD
Benzene	0.067 B	0.005	0.002	7.8
Toluene	0.048 B	0.010	0.005	4.1
Ethylbenzene	14.7	0.005	0.002	6.6
m/p-Xylenes	12.7	0.005	0.002	6.8
Styrene	21.2 DB	0.010	0.005	3.7
o-Xylene	8.38	0.005	0.002	5.7
Isopropylbenzene	4.0	0.005	0.002	4.9
n-Propylbenzene	1.94	0.005	0.002	4.5
1,3,5-Trimethylbenzene	8.52	0.005	0.002	2
1,2,4-Trimethylbenzene	30.1 D	0.005	0.002	3.6
t-Butylbenzene	U	0.005	0.002	NA
sec-Butylbenzene	0.206	0.005	0.002	2.9
p-Isopropyltoluene	2.53	0.005	0.002	0.8
n-Butylbenzene	1.92	0.005	0.002	1.6
C1 - Benzene	0.029 B	0.010	0.005	3.4
C2 - Benzene	21.3	0.005	0.002	11.1
C3 - Benzene	44.6 D	0.005	0.002	4.8
C4 - Benzene	13.4	0.005	0.002	1.5
C5 - Benzene	1.73	0.005	0.002	0.6
trans-Decalin	0.546	0.005	0.002	0.7
cis-Decalin	0.030	0.005	0.002	10.5
Naphthalene	151 DB	0.005	0.002	0.7
2-Methylnaphthalene	38.9 DB	0.005	0.002	1.8
1-Methylnaphthalene	21.7 D	0.005	0.002	1.8
C1 - Naphthalene	36.3 D	0.005	0.002	1.6
C2 - Naphthalene	18.2	0.005	0.002	1.1
C3- Naphthalene	12.7	0.005	0.002	1.6
C4- Naphthalene	5.32	0.005	0.002	1.3
Acenaphthylene	3.67	0.005	0.002	1.9
Acenaphthene	2.95	0.005	0.002	0.3
Dibenzofuran	0.918	0.005	0.002	1.5
Fluorene	6.47	0.005	0.002	0.6
C1 - Fluorene	4.71	0.005	0.002	0.4
C2 - Fluorene	3.66	0.005	0.002	1.1
C3 - Fluorene	2.04	0.005	0.002	1.9
Phenanthrene	16.5	0.005	0.002	1.8
Anthracene	4.38	0.005	0.002	0.7

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080118-02DUP		
File ID:	E012210.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	1/16/2008	Decanted:	None
Date Received:	1/18/2008		
Date Prepared:	1/21/2008	Sample Size (g):	2.14
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/23/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	15.0	0.005	0.002	0.7
C2 - Phenanthrene/Anthracene	7.28	0.005	0.002	0.3
C3 - Phenanthrene/Anthracene	2.68	0.005	0.002	0.4
C4 - Phenanthrene/Anthracene	0.683	0.005	0.002	4.7
Dibenzothiophene	2.39	0.005	0.002	0.4
C1 - Dibenzothiophene	3.18	0.005	0.002	0
C2 - Dibenzothiophene	2.48	0.005	0.002	0
C3 - Dibenzothiophene	1.28	0.005	0.002	1.6
C4 - Dibenzothiophene	0.420	0.005	0.002	0.5
Benzo(b)naphtho(2,1-d)thiophene	0.520	0.005	0.002	1.3
Fluoranthene	5.48	0.005	0.002	0.4
Pyrene	8.7	0.005	0.002	0.7
C1 - Fluoranthene/Pyrene	7.4	0.005	0.002	0.3
C2 - Fluoranthene/Pyrene	2.28	0.005	0.002	0
C3 - Fluoranthene/Pyrene	0.666	0.005	0.002	0
Benz[a]anthracene	2.76	0.005	0.002	0.7
Chrysene*	2.76	0.005	0.002	0.4
C1 - Benz(a)anthracene/Chrysene	2.2	0.005	0.002	0.5
C2 - Benz(a)anthracene/Chrysene	0.746	0.005	0.002	3.4
C3 - Benz(a)anthracene/Chrysene	0.245	0.005	0.002	5.9
C4 - Benz(a)anthracene/Chrysene	0.122	0.005	0.002	10.3
Benzo[b]fluoranthene	0.925	0.005	0.002	2.2
Benzo[j/k]fluoranthene	1.16	0.005	0.002	2.6
Benzo(e)pyrene	1.17	0.005	0.002	0.9
Benzo[a]pyrene	1.84	0.005	0.002	0
Perylene	0.261	0.005	0.002	1.1
Indeno[1,2,3-cd]pyrene	0.700	0.005	0.002	0.7
Dibenz[a,h]anthracene	0.195	0.005	0.002	4
Benzo[g,h,i]perylene	0.707	0.005	0.002	0.6
Coronene	0.131	0.005	0.002	0
Retene	0.274	0.005	0.002	0
Benzo(b/c)fluorenes	1.07	0.005	0.002	1.9
2-Methylpyrene	1.1	0.005	0.002	0
4-Methylpyrene	1.03	0.005	0.002	3
1-Methylpyrene	1.04	0.005	0.002	0
Heptadecane	BU	0.010	0.005	NA
Pristane	38.6 D	0.005	0.002	1.8
Octadecane	BU	0.010	0.005	NA
Phytane	24.5 D	0.005	0.002	1.6

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: Duplicate of 0801605-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	Key - URS	Cleanup Method(s):	NA
Lab ID	HC080118-02DUP	Analysis Method:	EPA 8270M
File ID:	E012210.D	Matrix:	Soil
Date Sampled:	1/16/2008	Preservation:	None
Date Received:	1/18/2008	Decanted:	None
Date Prepared:	1/21/2008	Sample Size (g):	2.14
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	1/23/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080121-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	5.18	0.005	0.002	0.4
2,6,10-trimethyltridecane	9.96	0.005	0.002	0.8
Norpristane	11.8	0.005	0.002	3.3
Total PAH (16)	210	0.005	0.002	0.5
Total PAH (42)	344	0.005	0.002	0.3

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	72	50 - 120
Phenanthrene-d10	81	50 - 120
Perylene-d12	79	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

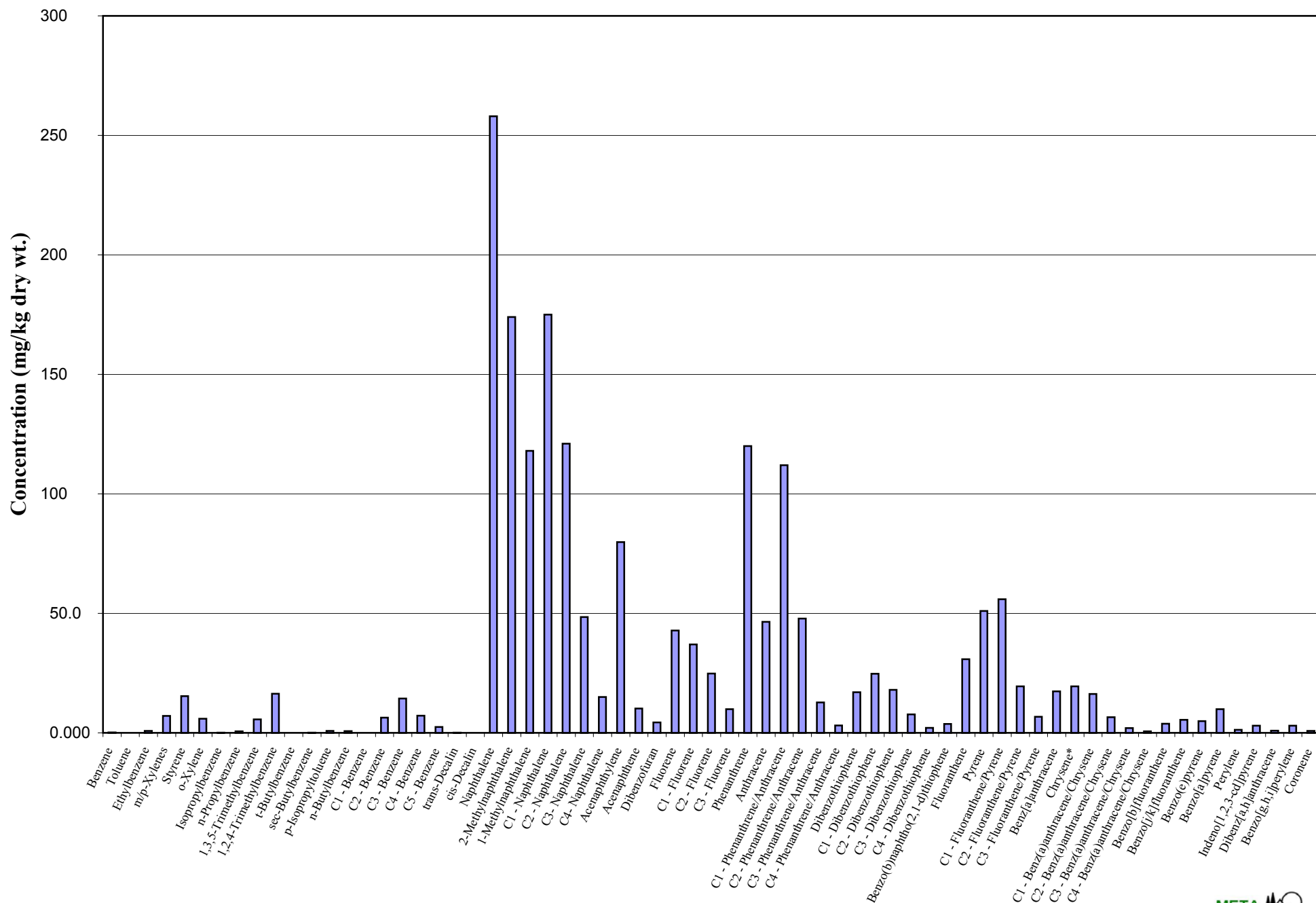
* - Triphenylene is known to coelute with this compound.

Appendix D

Extended MAH/PAH Profiles – Histograms

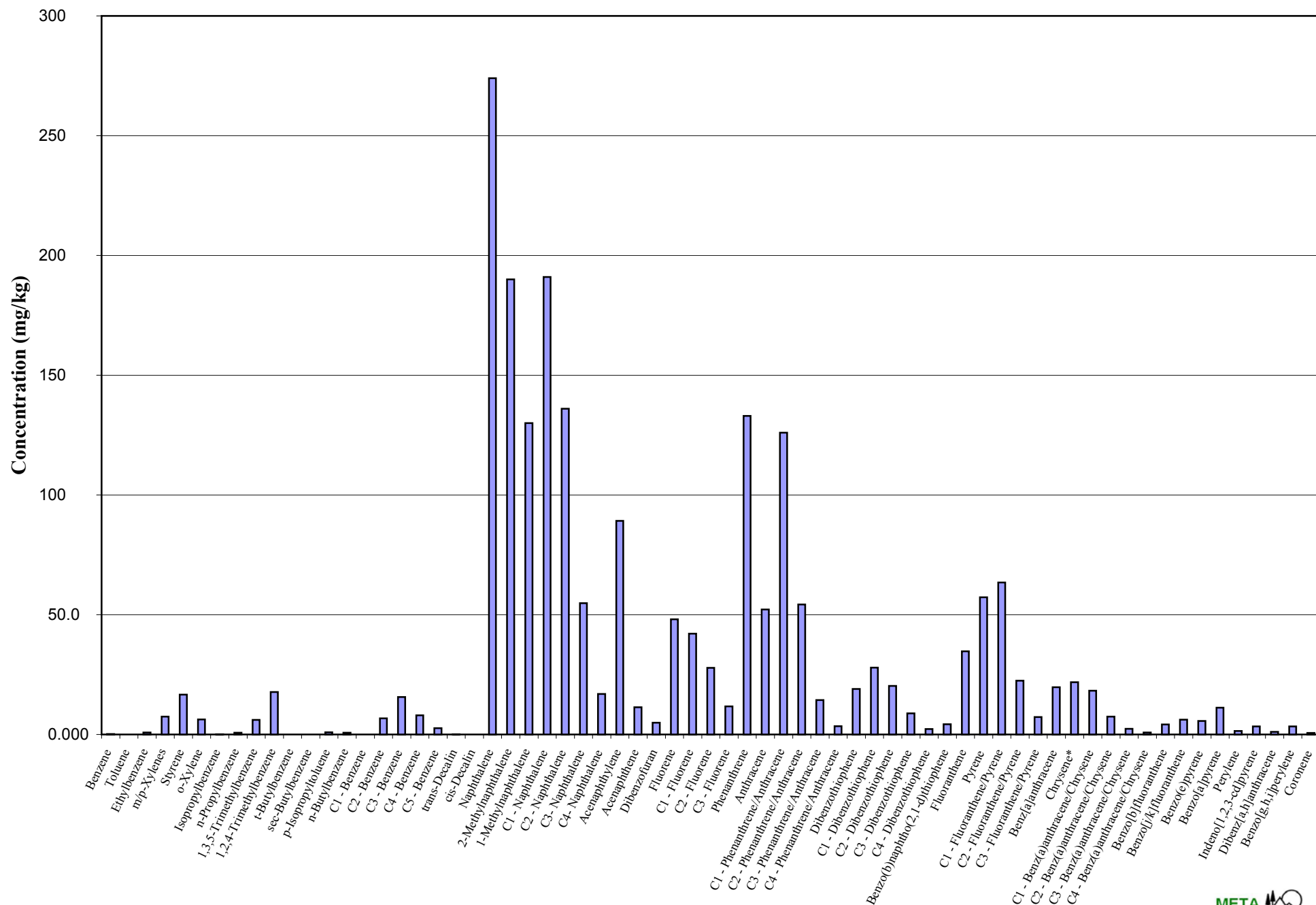
0714446-008C

HC071228-01-D2



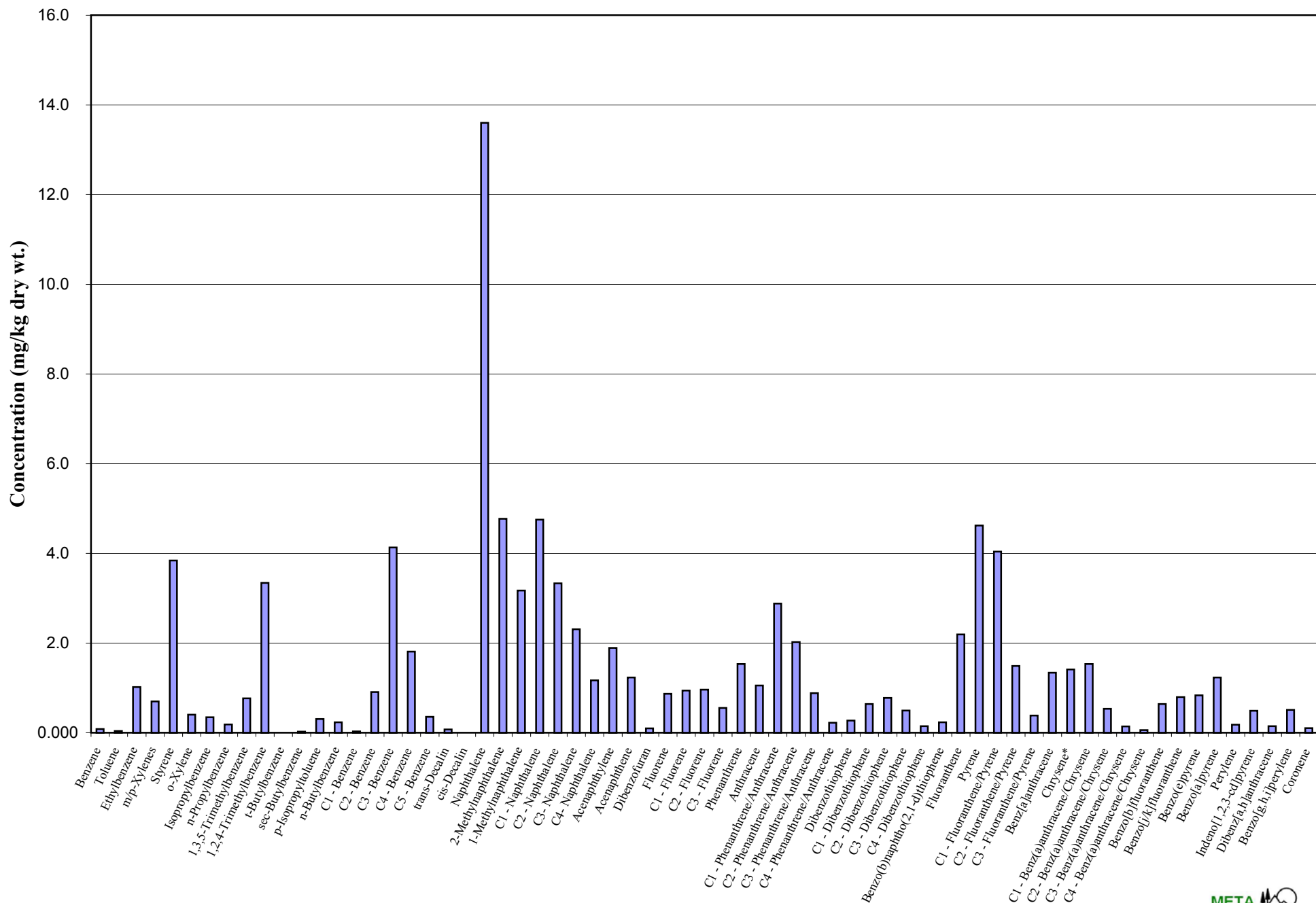
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HC071228-01DUP-D2



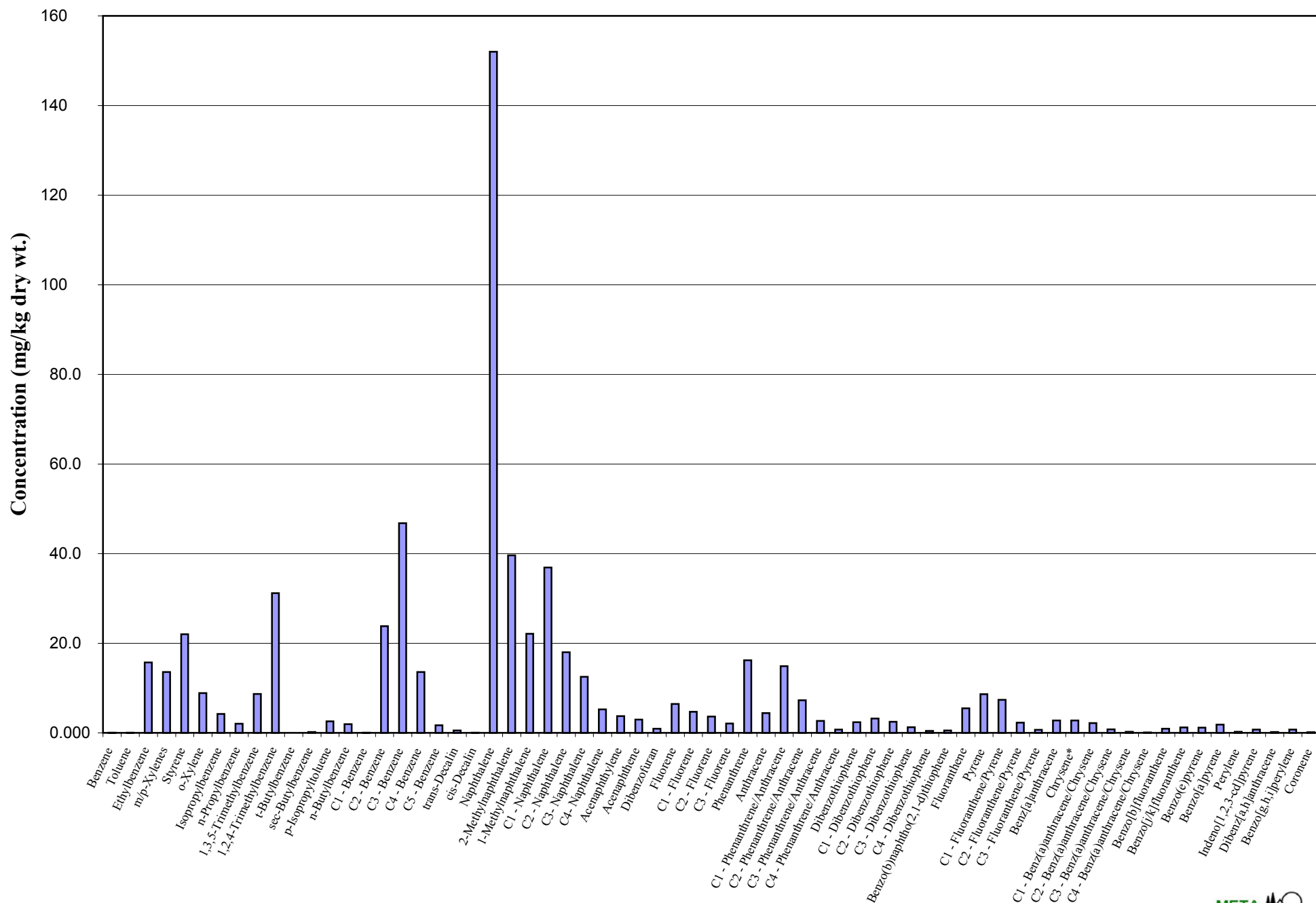
0801605-001D

HC080118-01



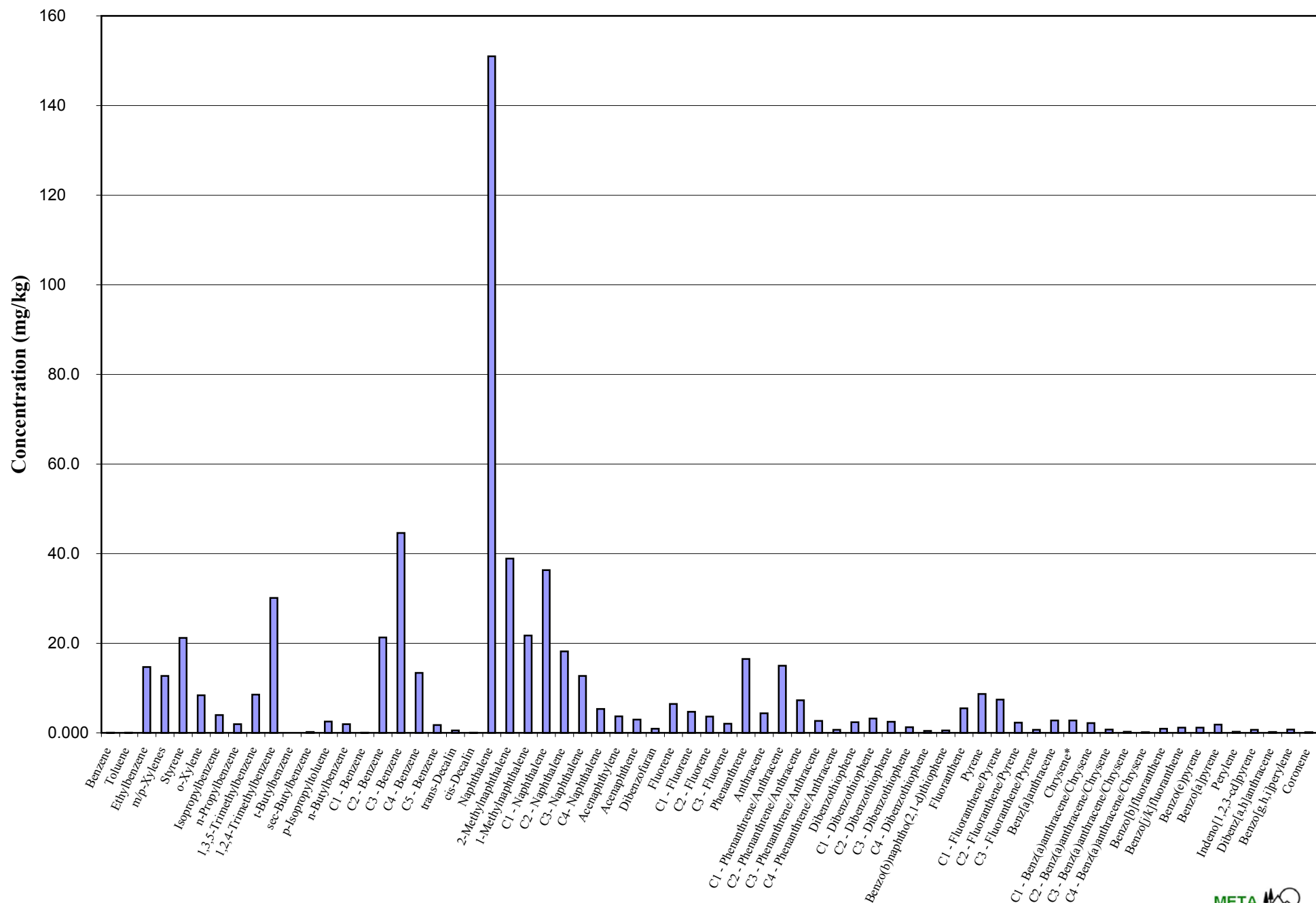
0801605-002D

HC080118-02



Duplicate of 0801605-002D

HC080118-02DUP

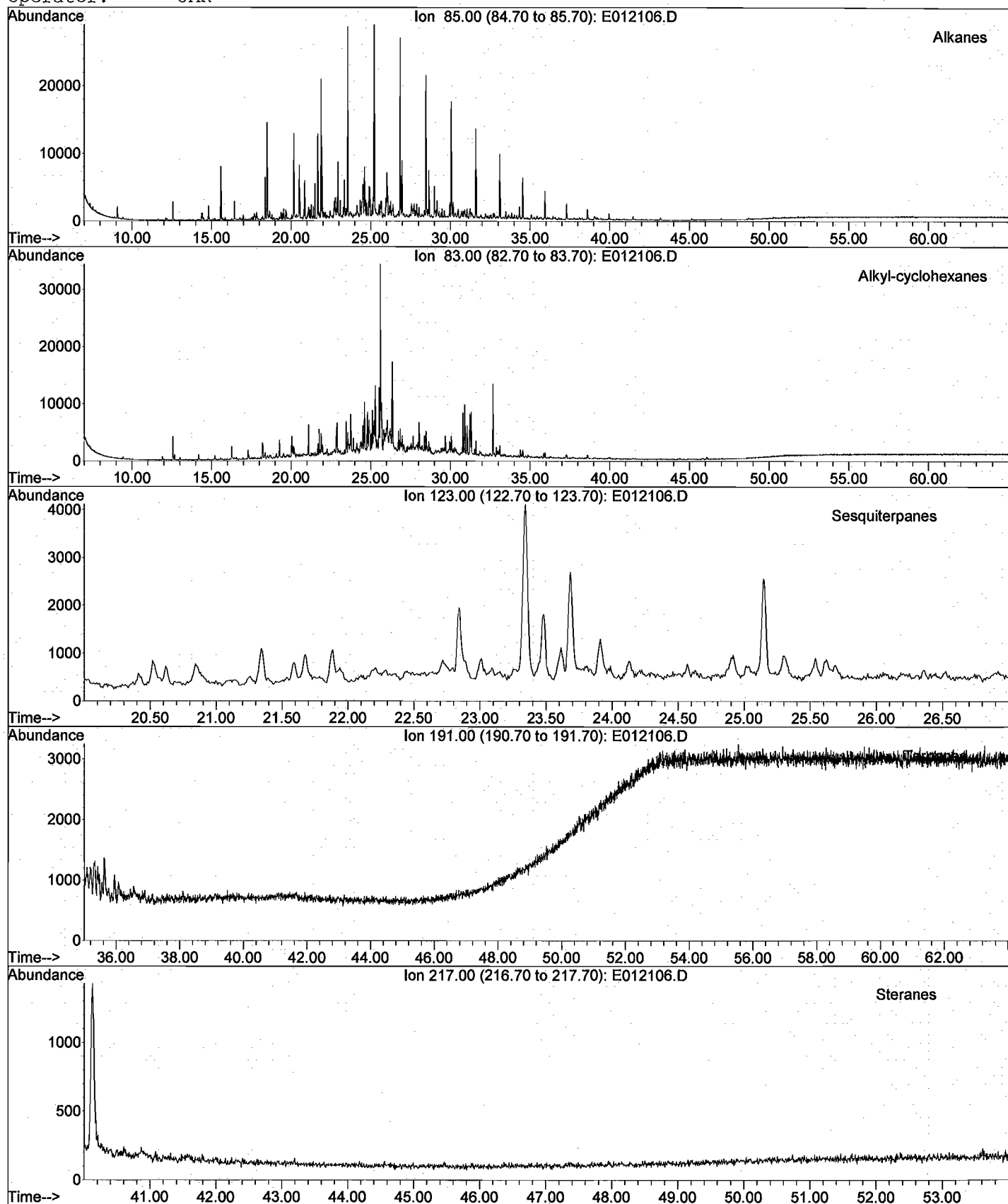


Appendix E

Extracted Ion Current Profiles (EICPs)

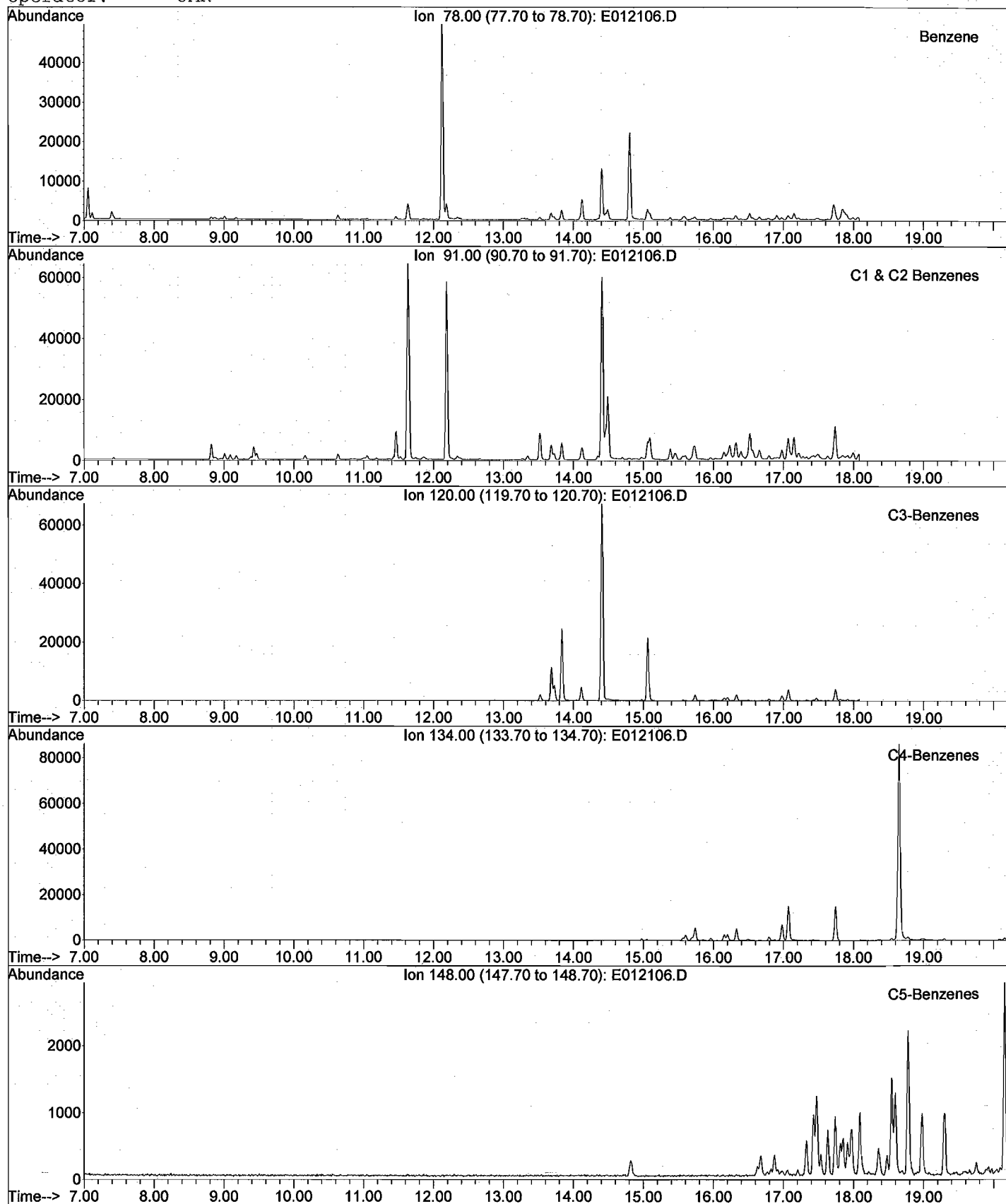
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Method File: 4008SIMT.M
Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



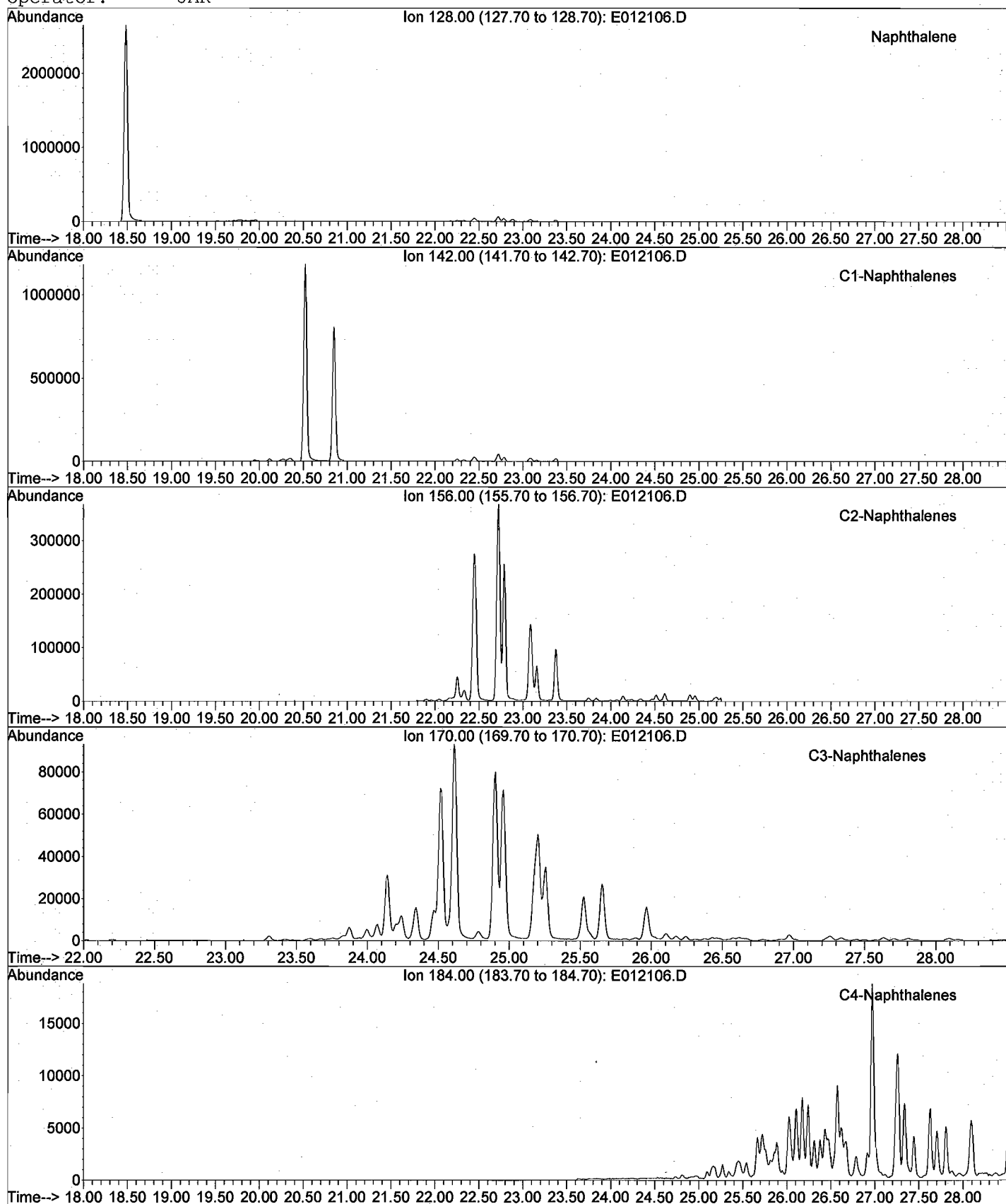
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Method File: 4008SIMT.M
Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



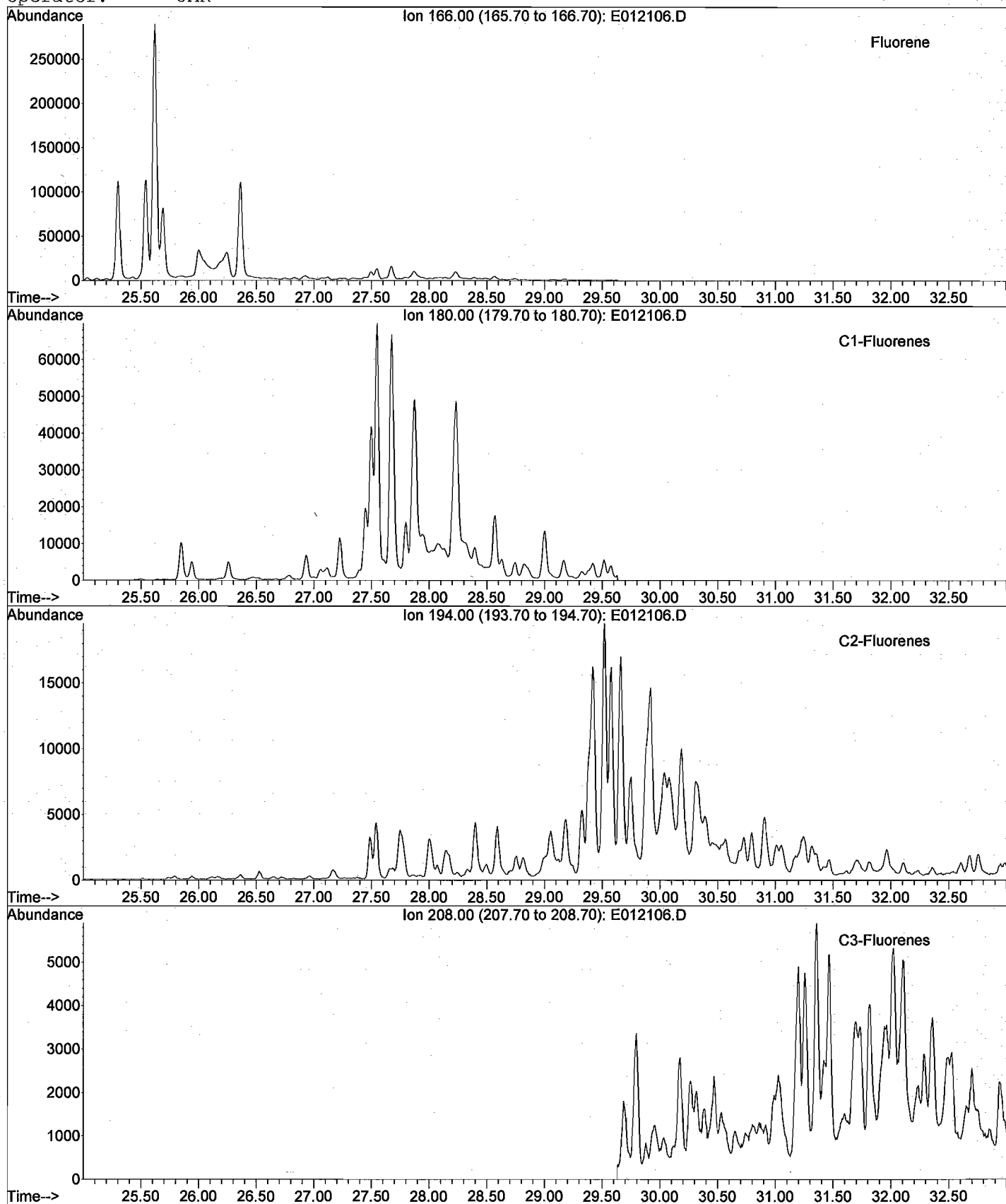
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Method File: 4008SIMT.M
Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



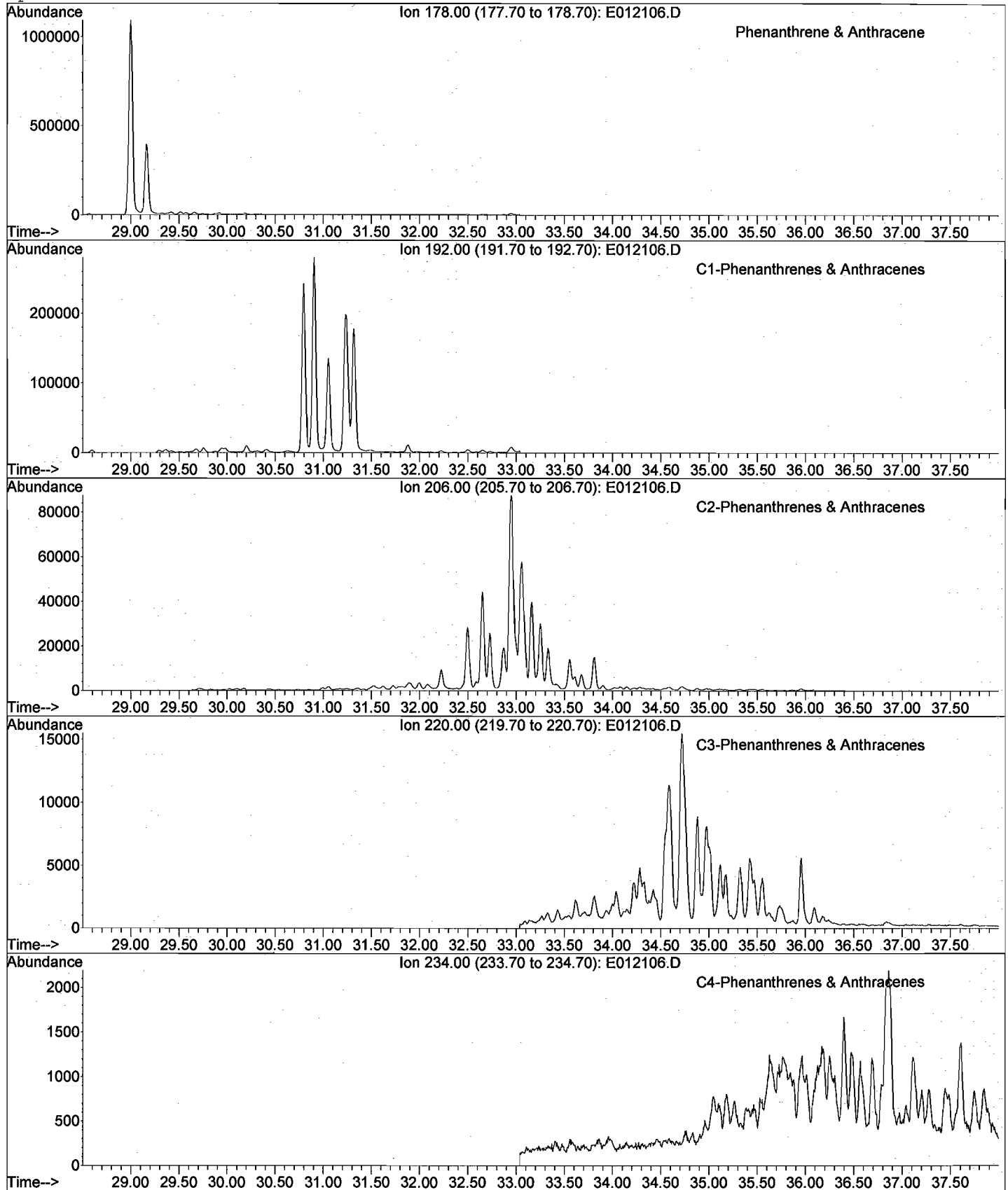
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Method File: 4008SIMT.M
Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



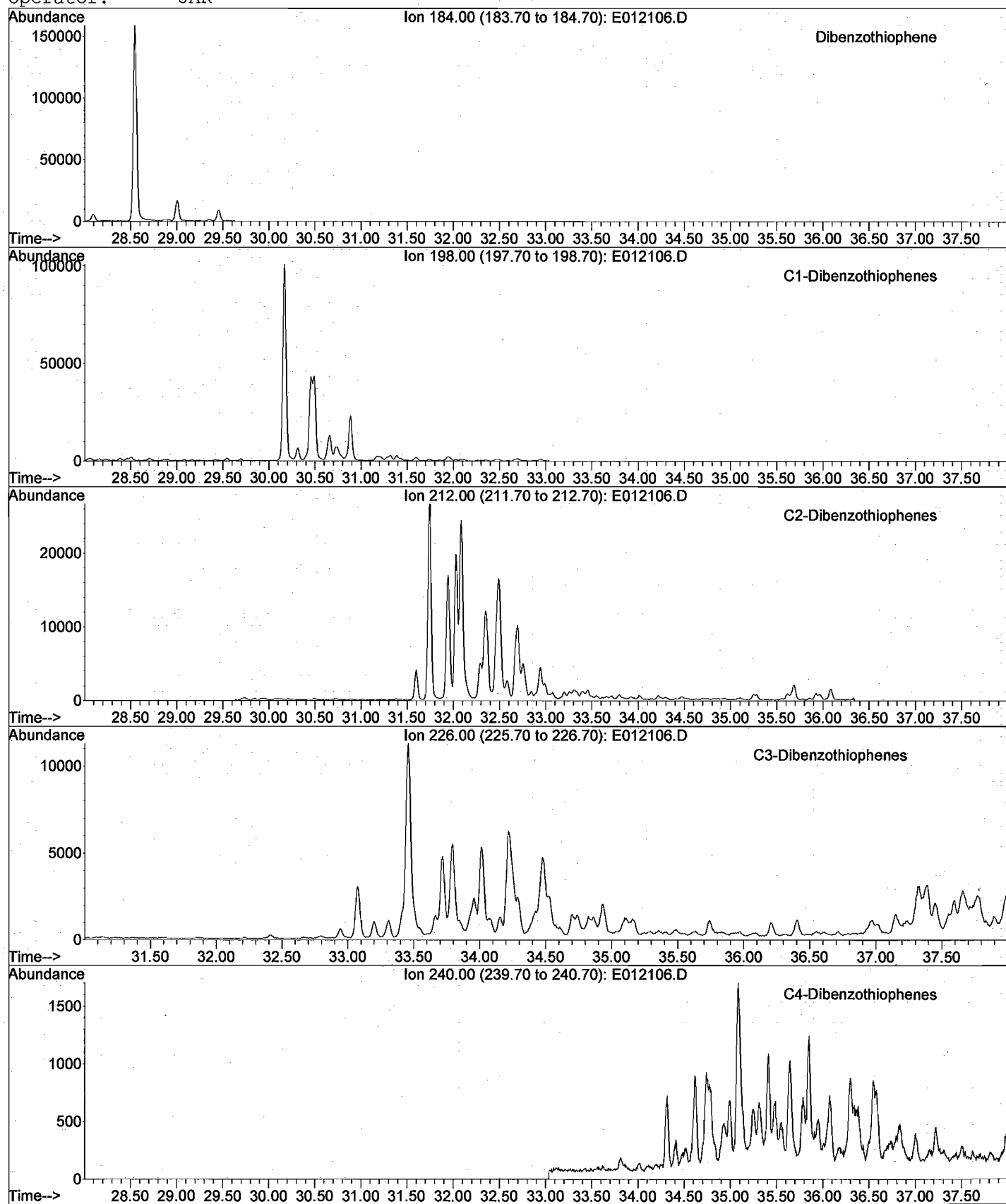
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Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



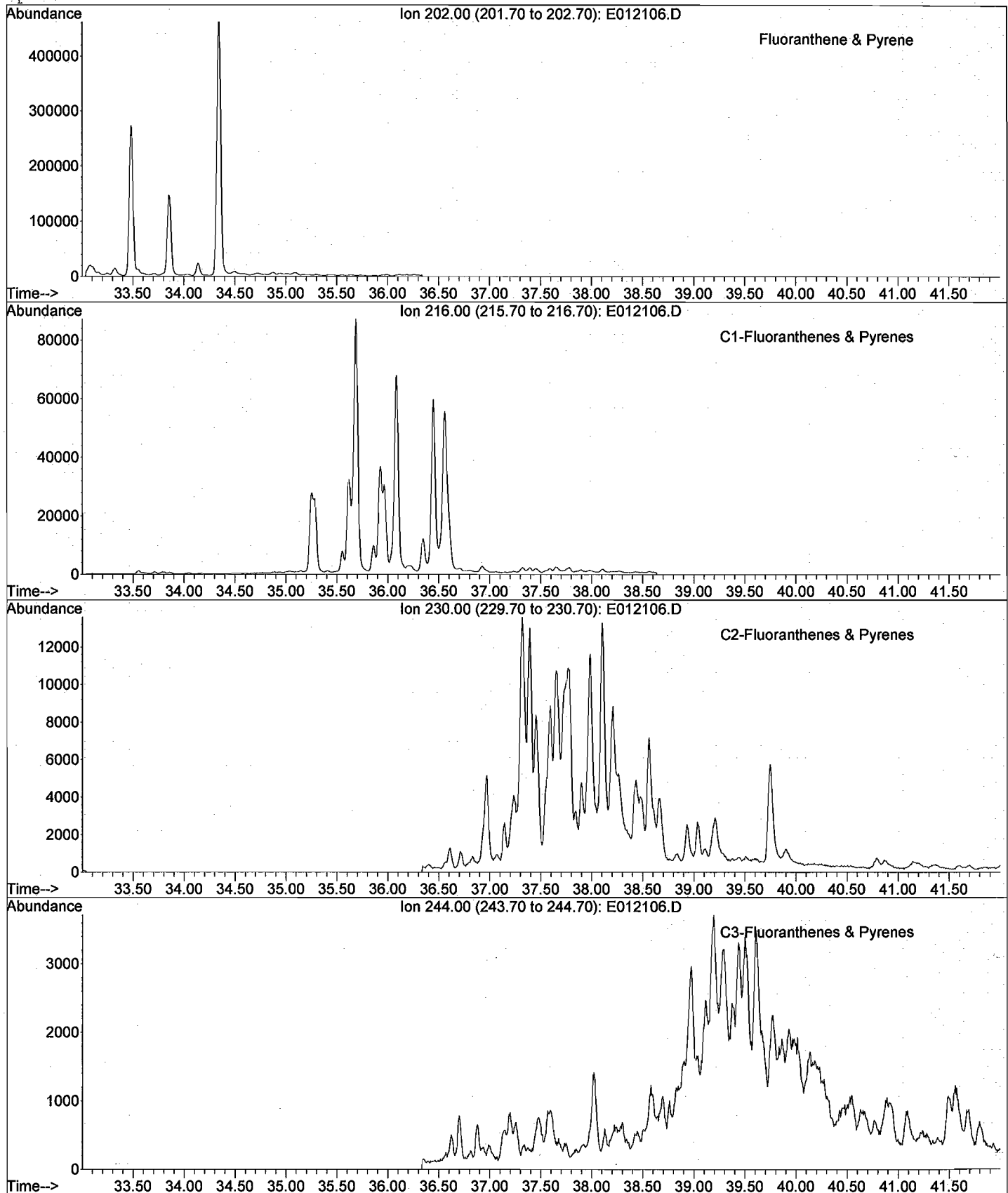
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Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



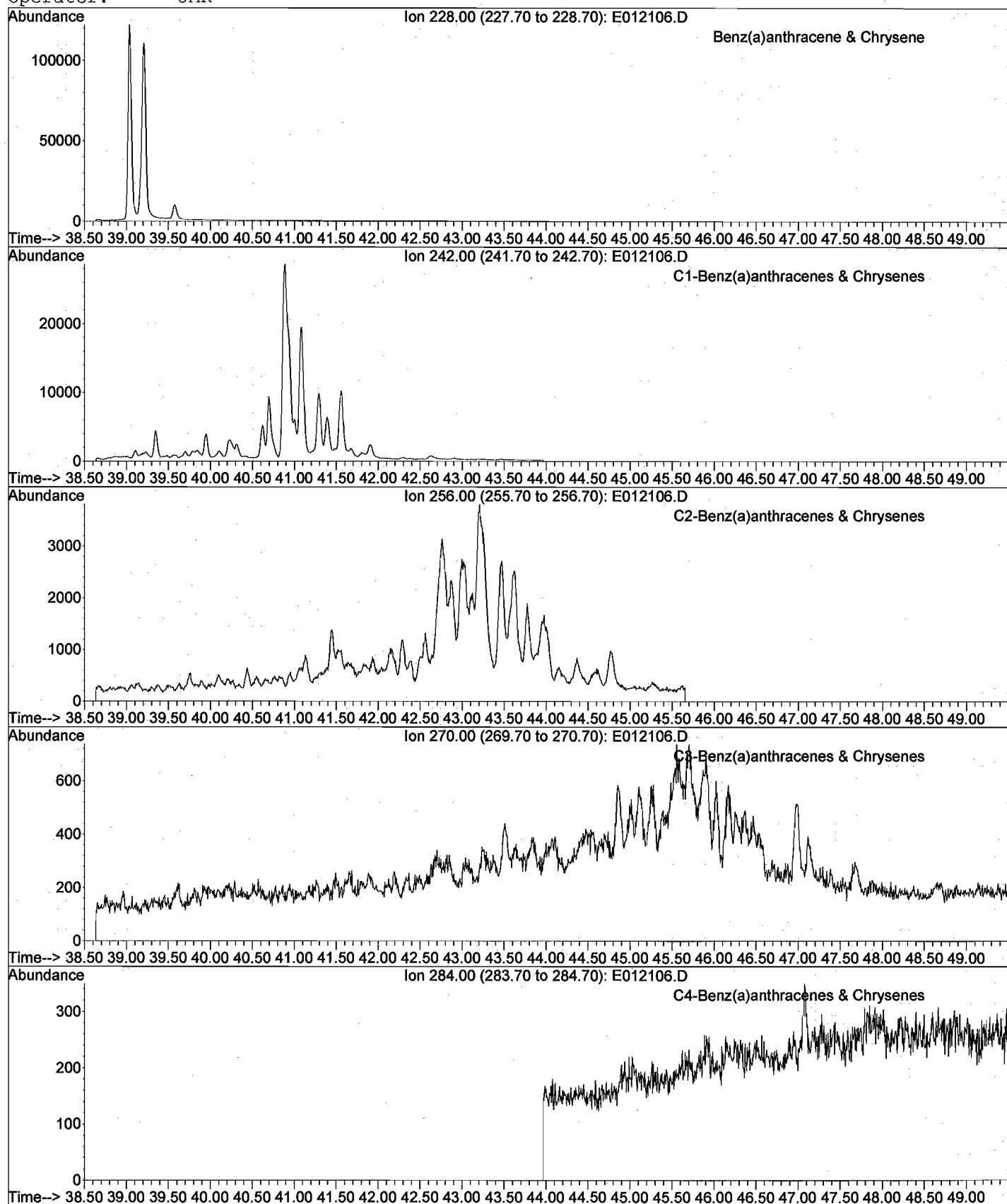
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Misc Info: 0714446-008C - 20X
Operator: JAR



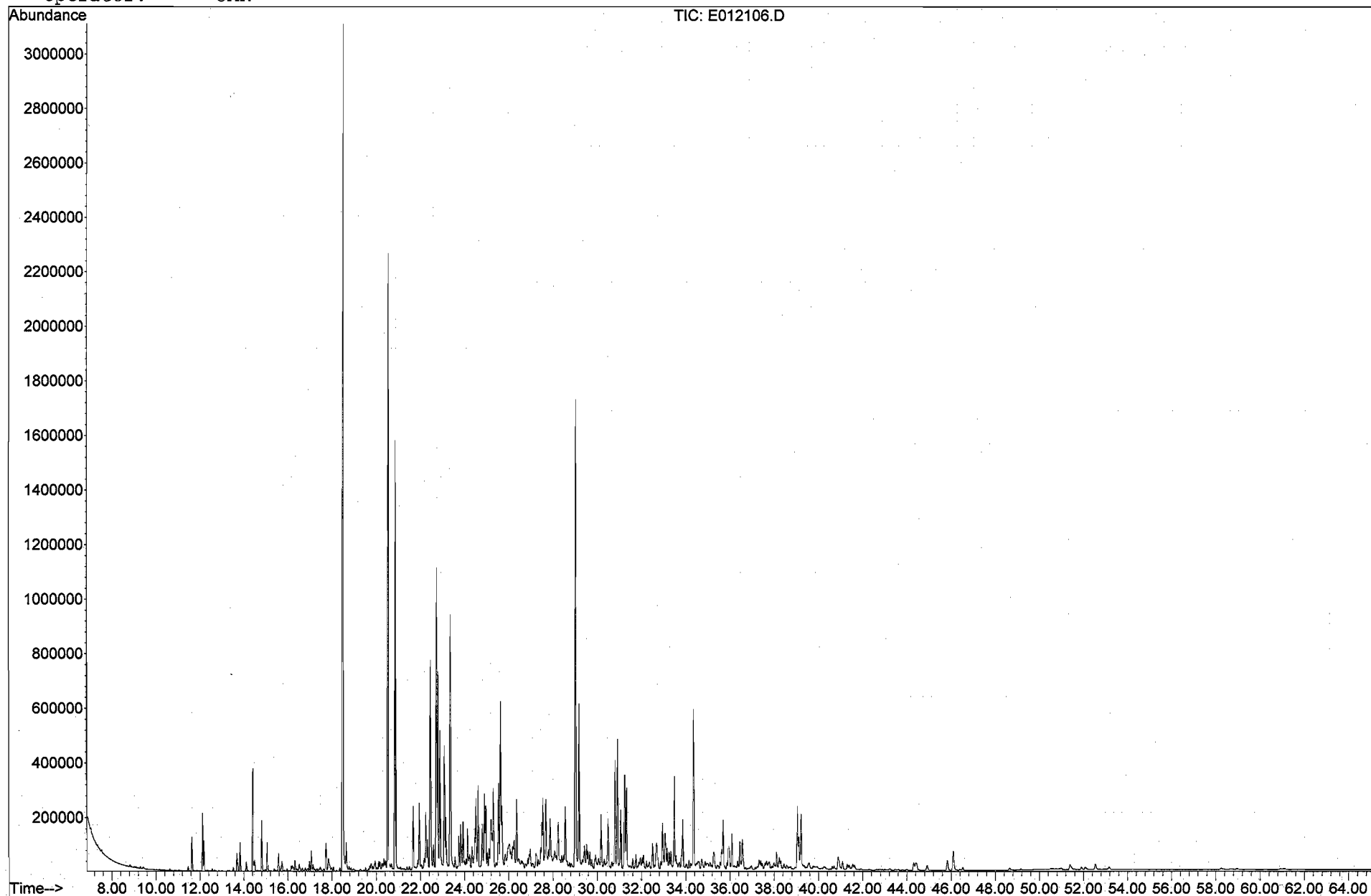
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Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR



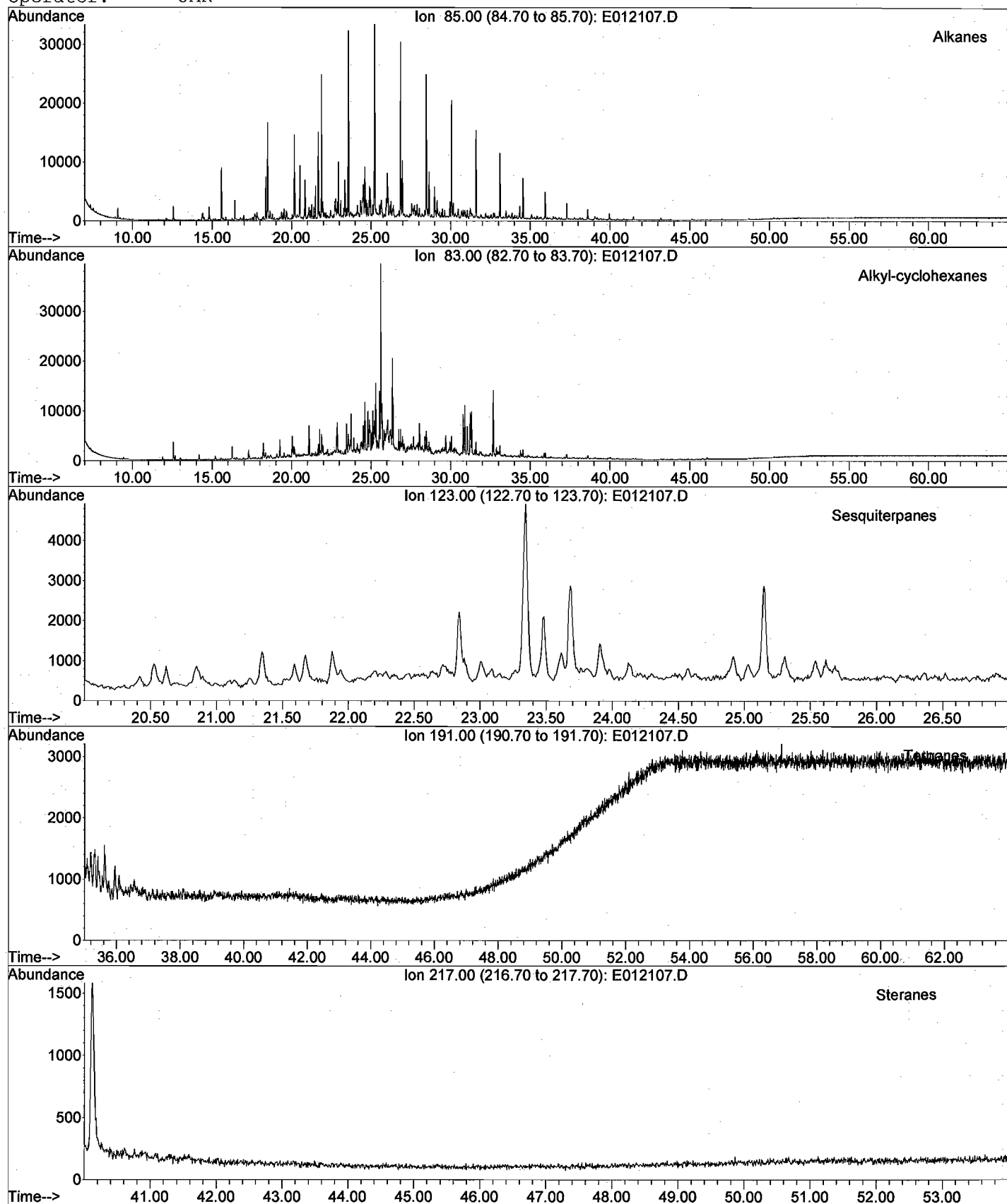
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Misc Info: 0714446-008C - 20X
Operator: JAR



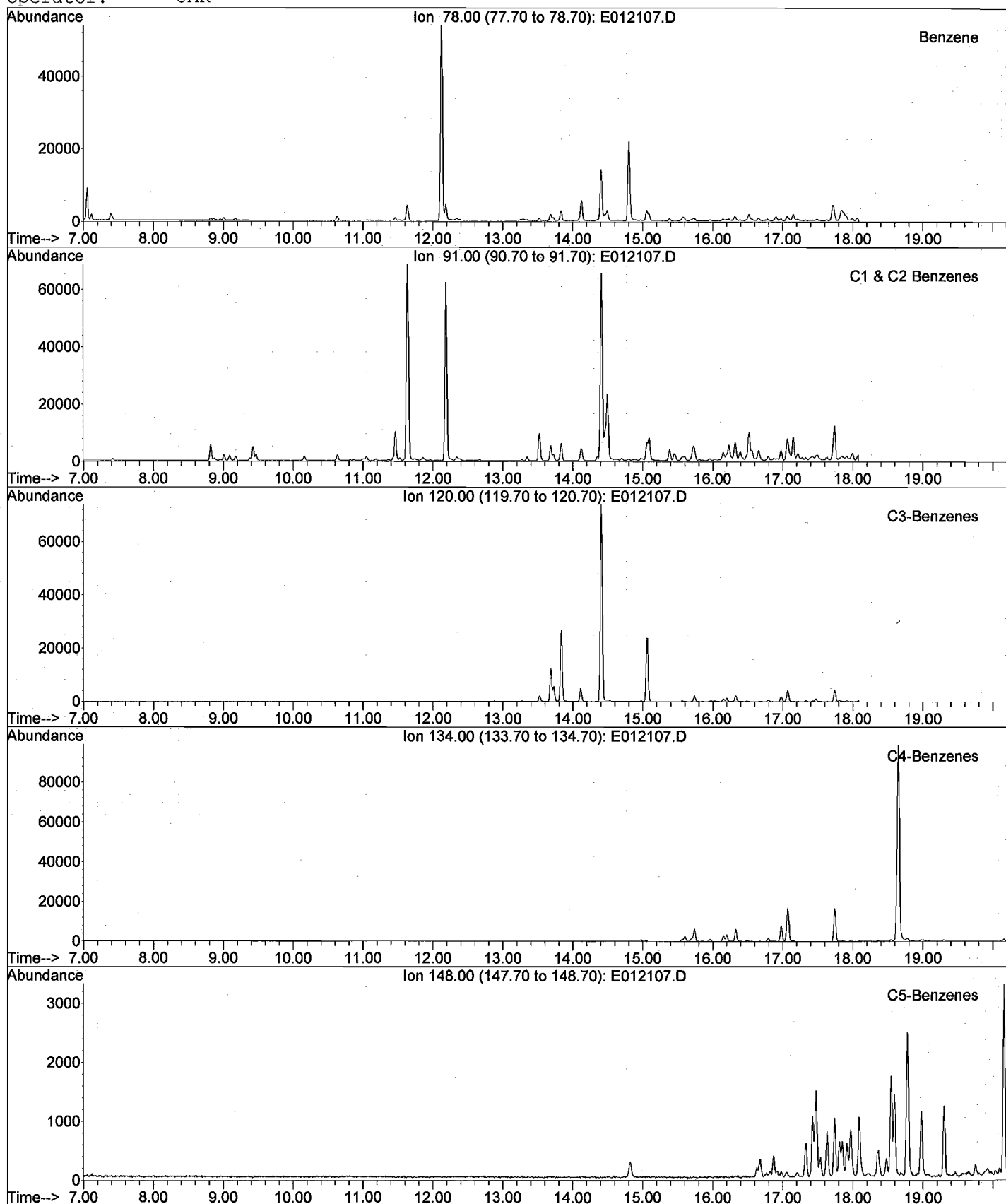
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Sample Name: HC071228-01DUP-D2
Misc Info: Duplicate of 0714446-008C - 20X
Operator: JAR



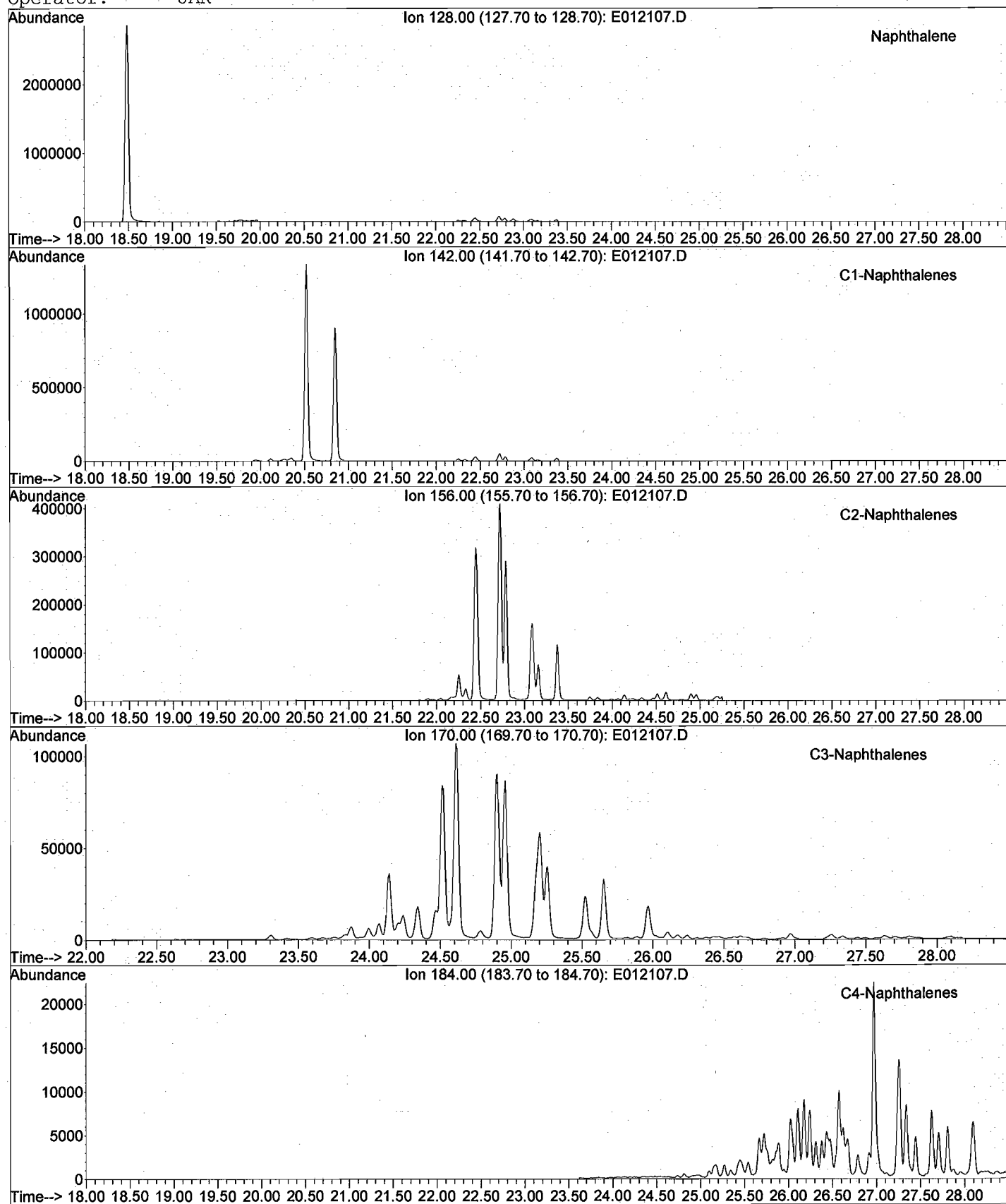
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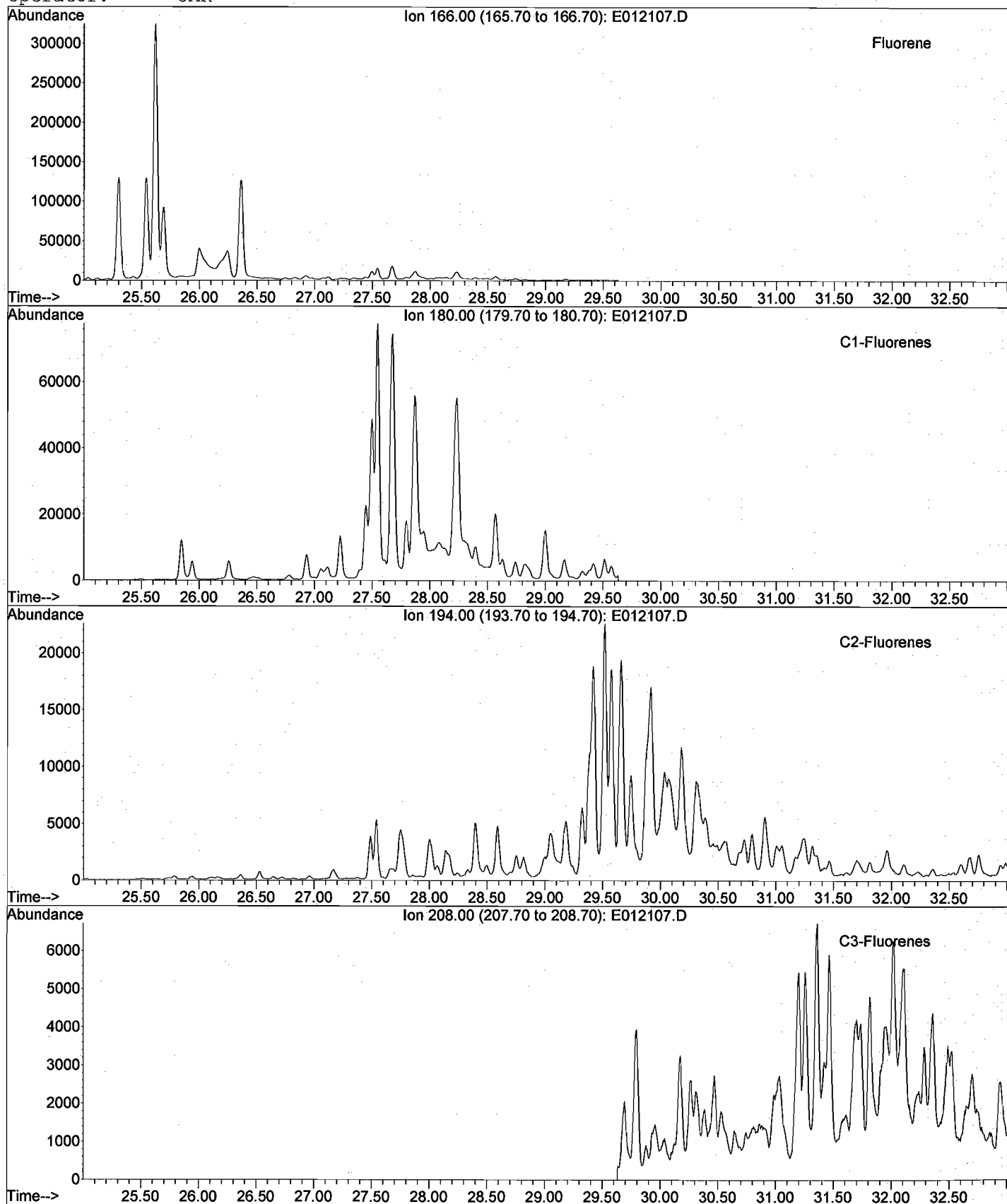
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Operator: JAR



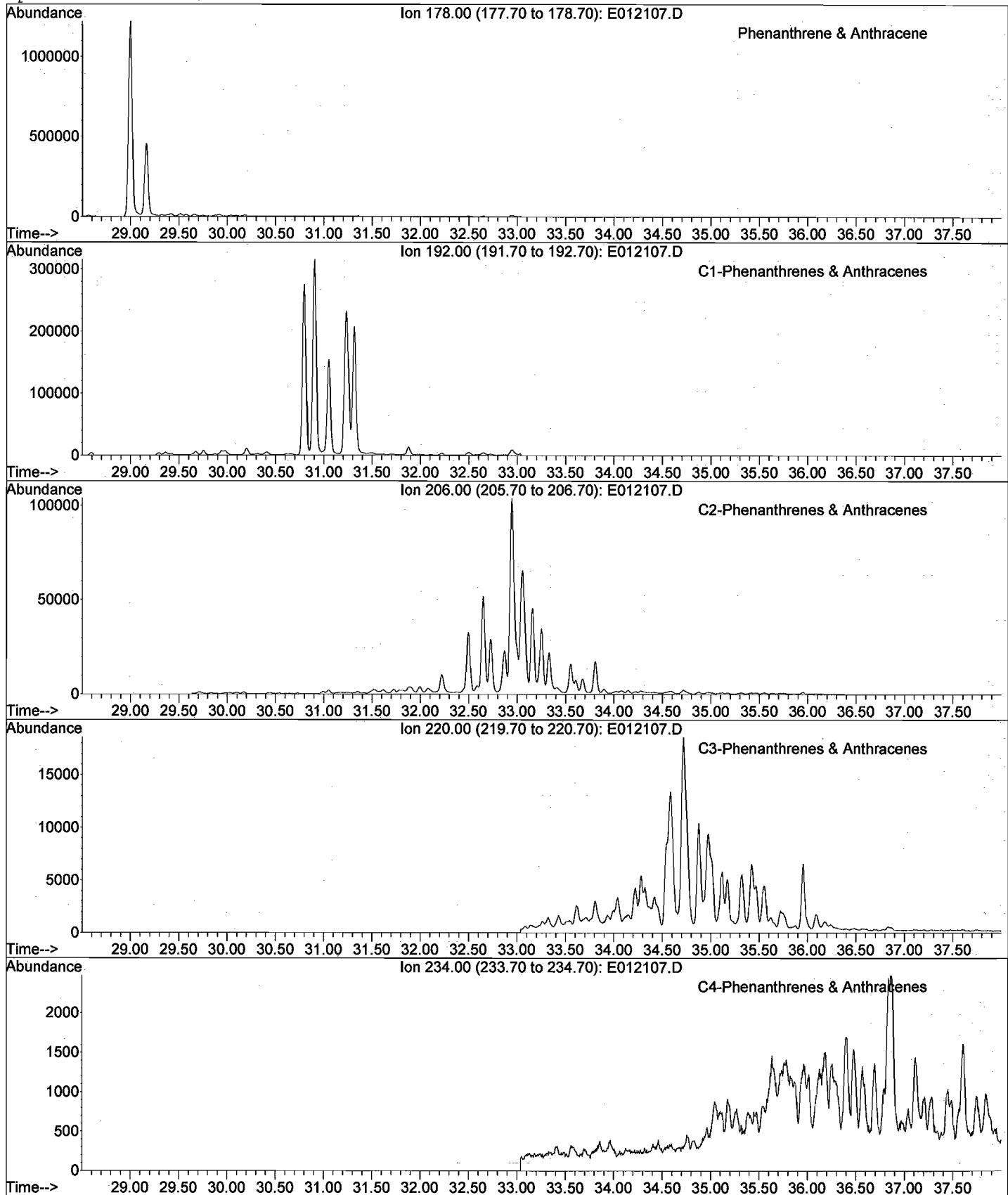
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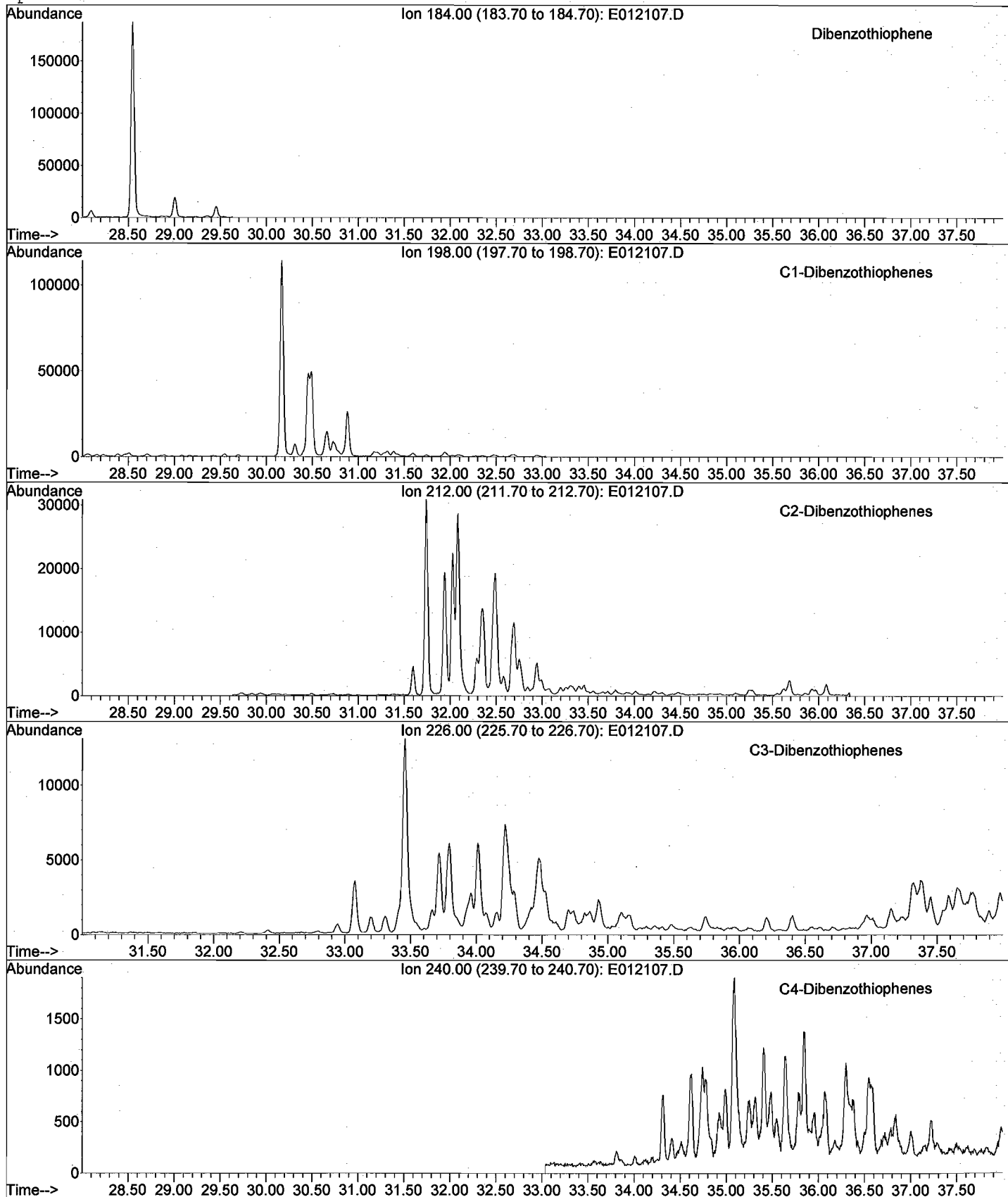
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Misc Info: Duplicate of 0714446-008C - 20X
Operator: JAR



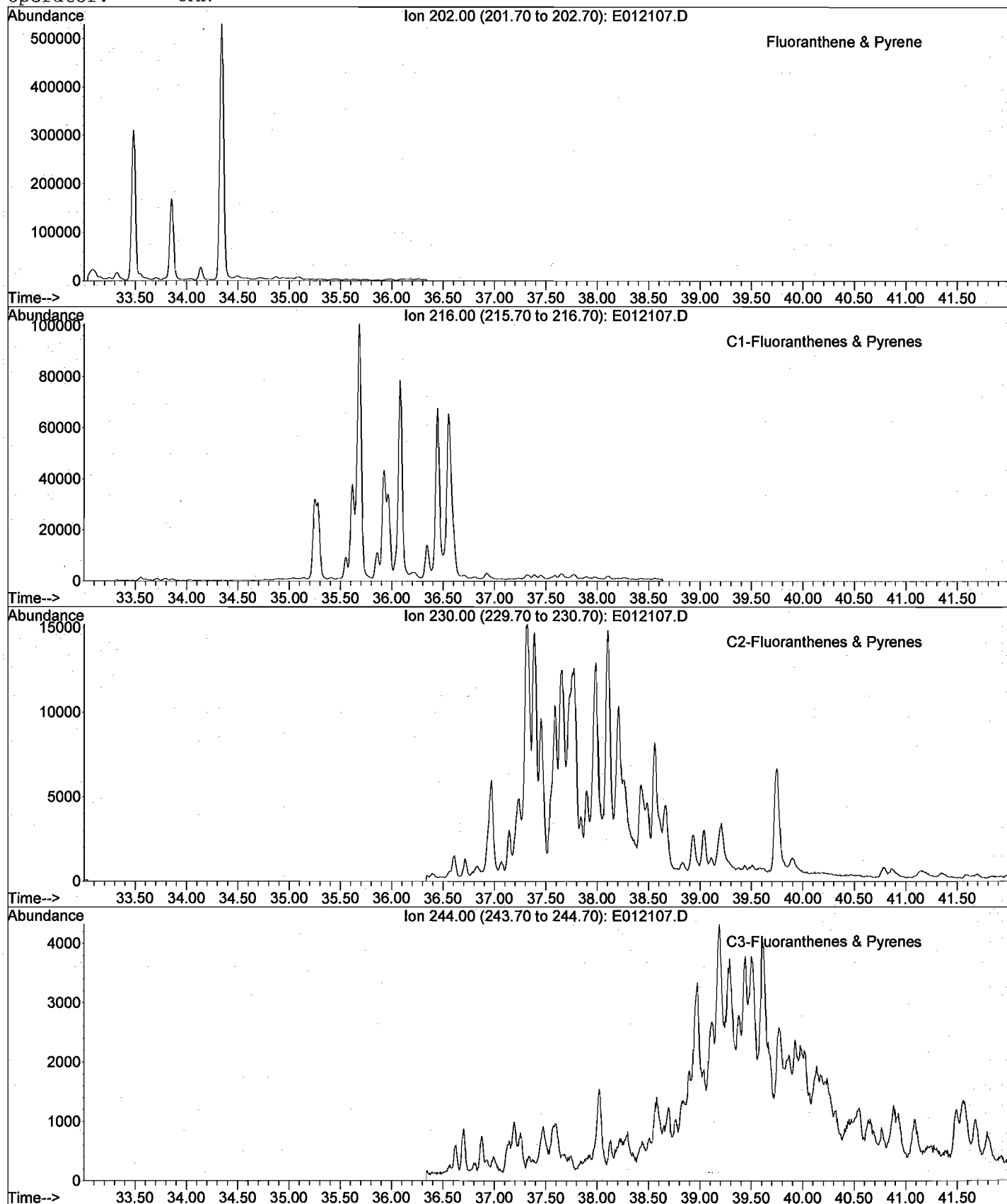
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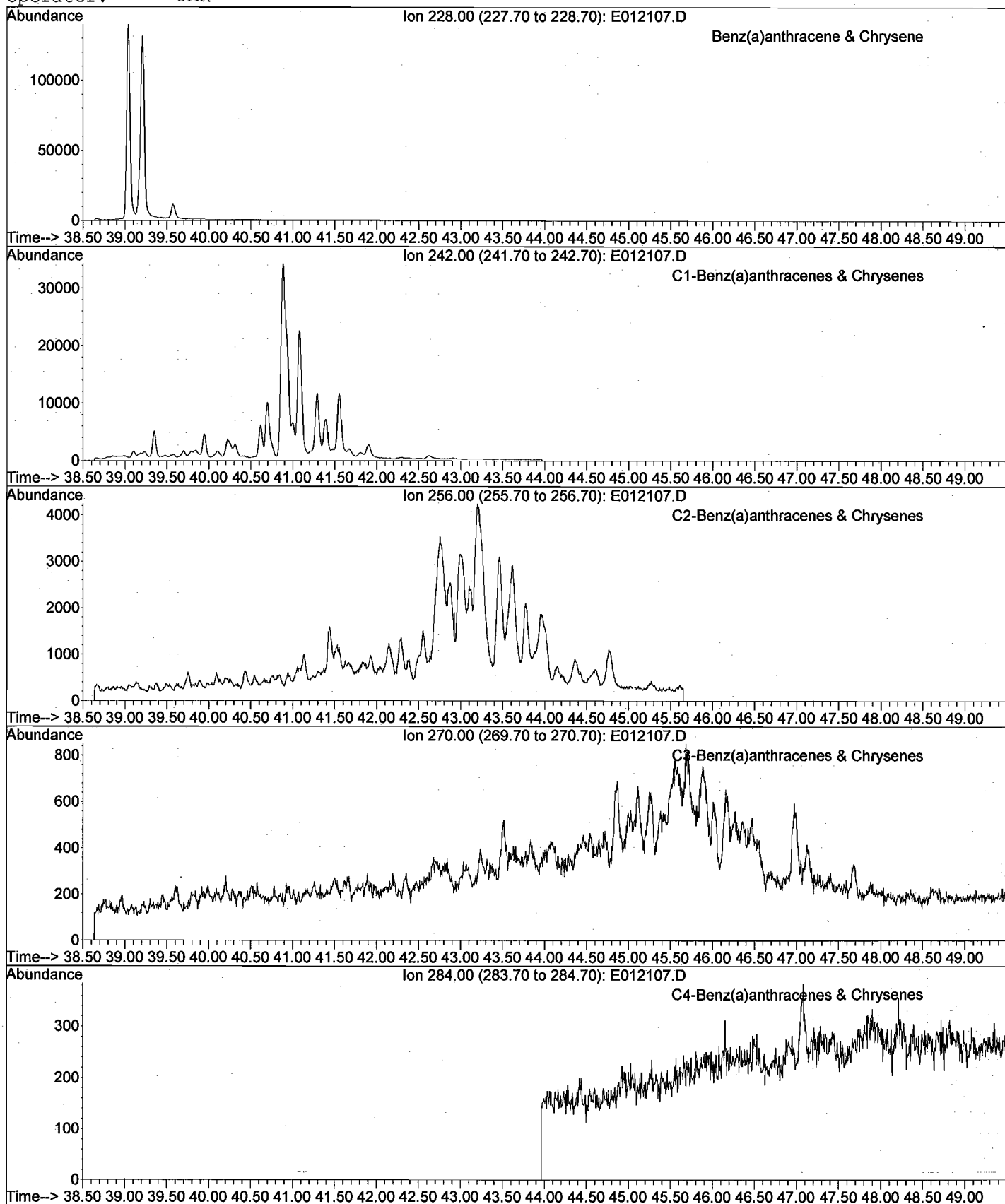
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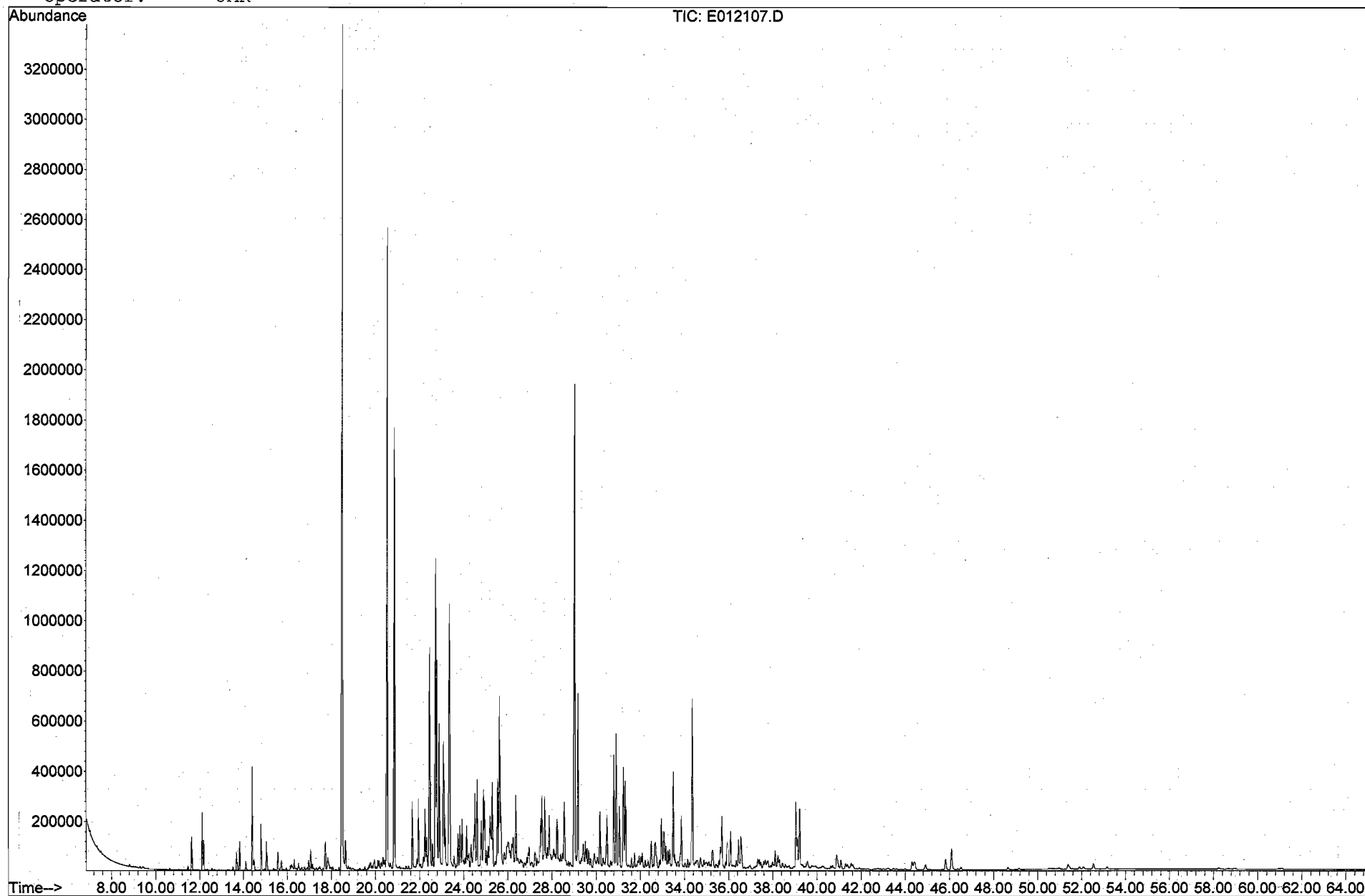
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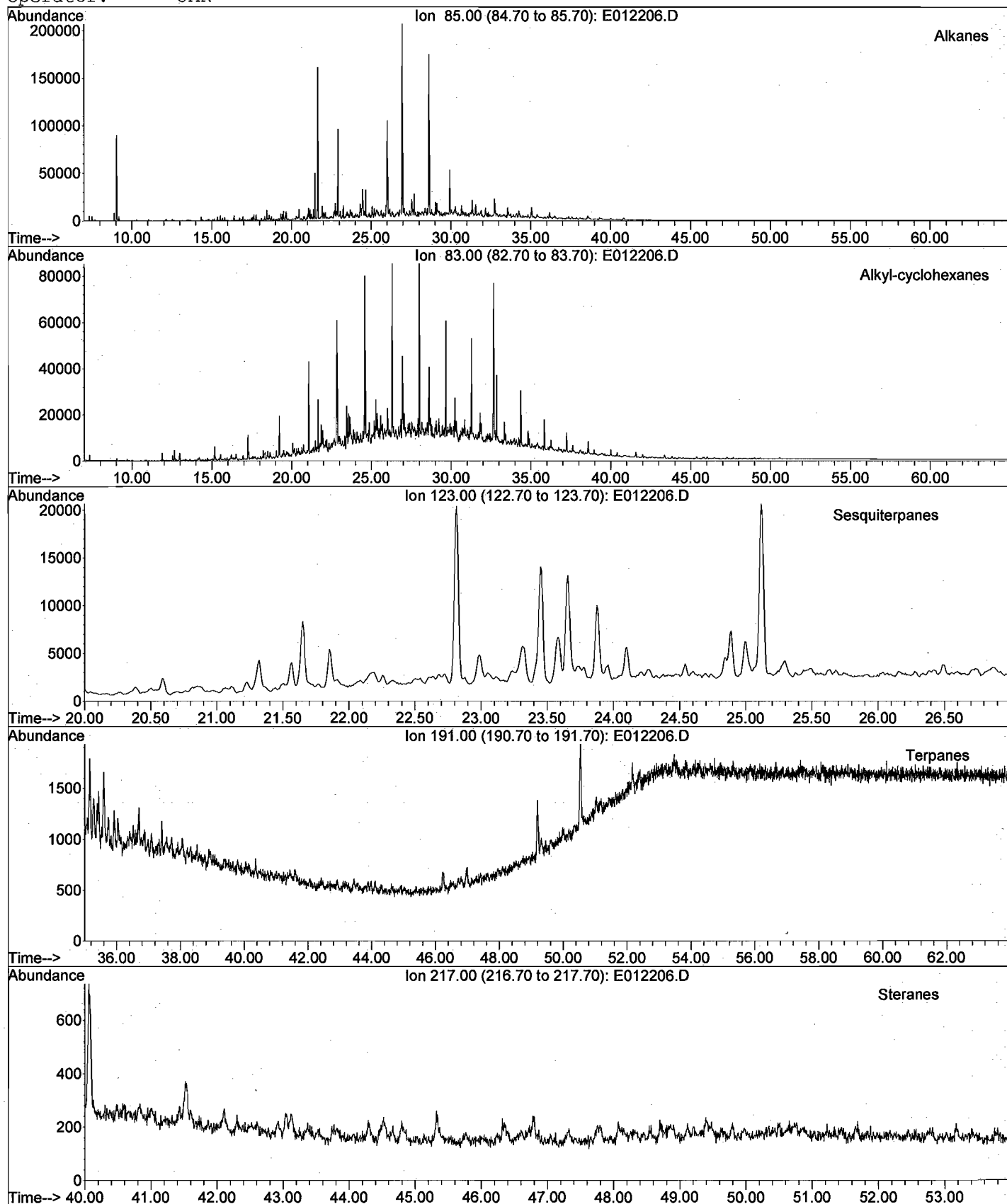
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Misc Info: Duplicate of 0714446-008C - 20X
Operator: JAR



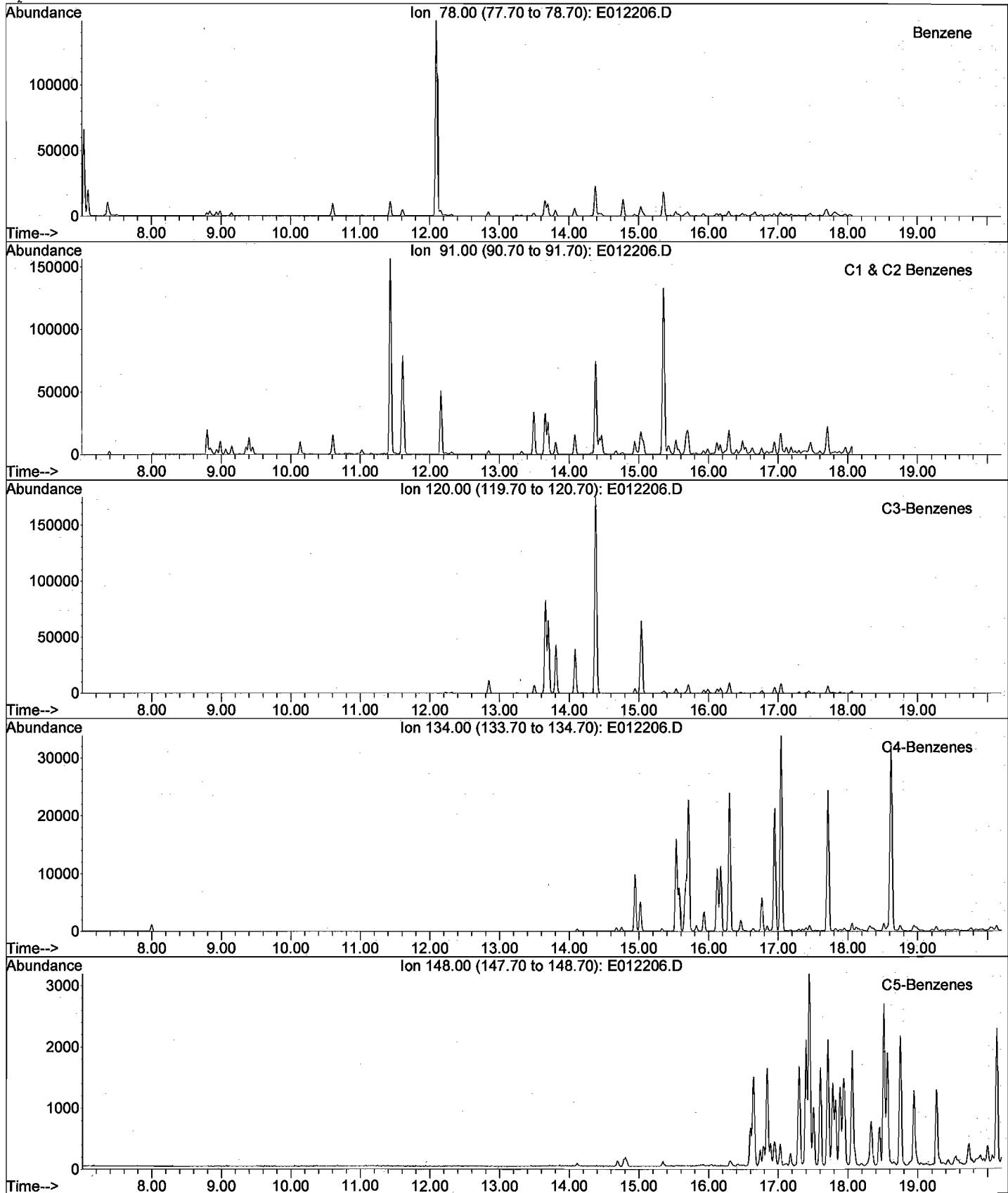
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Date Acquired: 22 Jan 2008 8:59 pm
Method File: 4008SIMT.M
Sample Name: HC080118-01
Misc Info: 0801605-001D
Operator: JAR



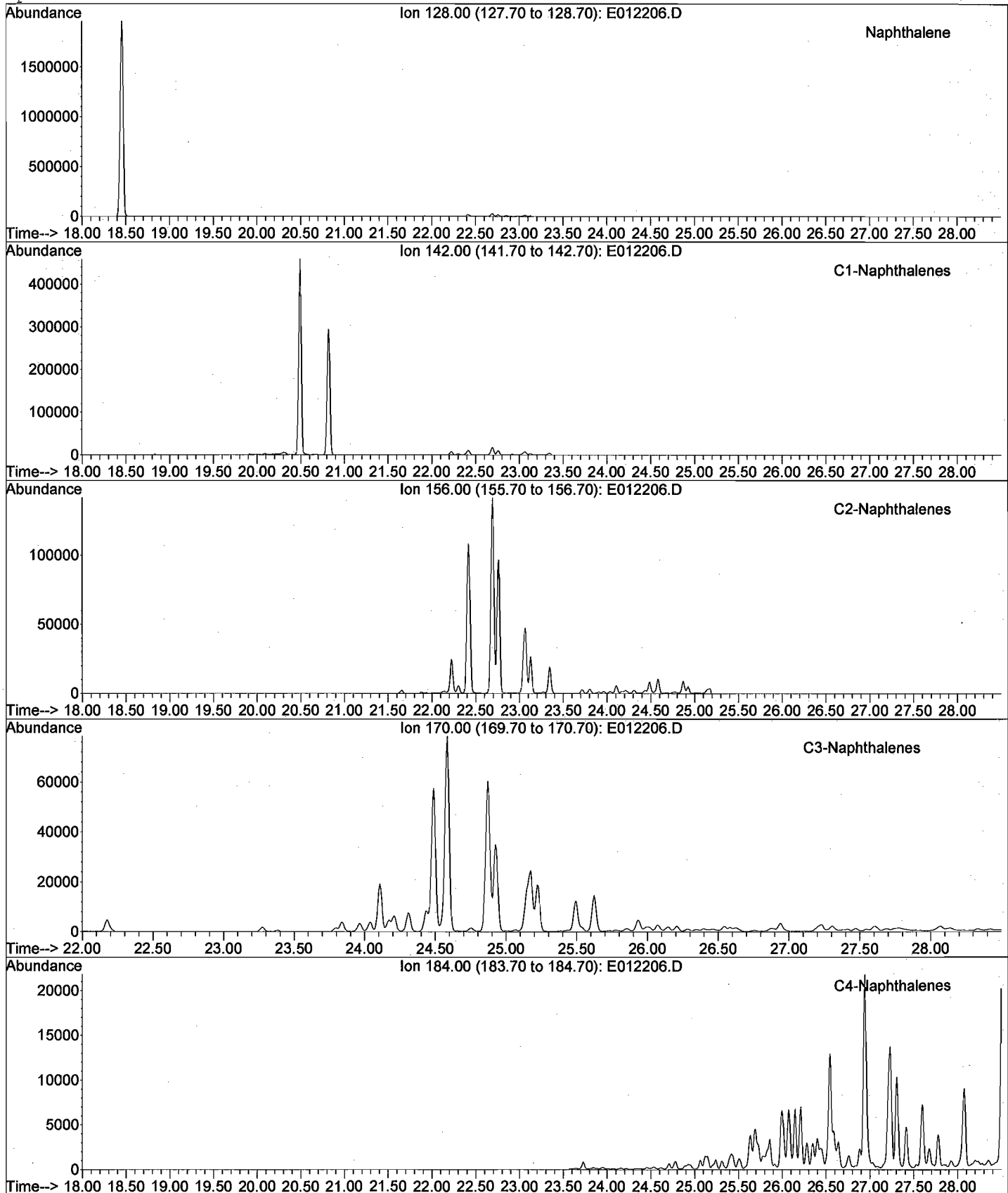
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Operator: JAR



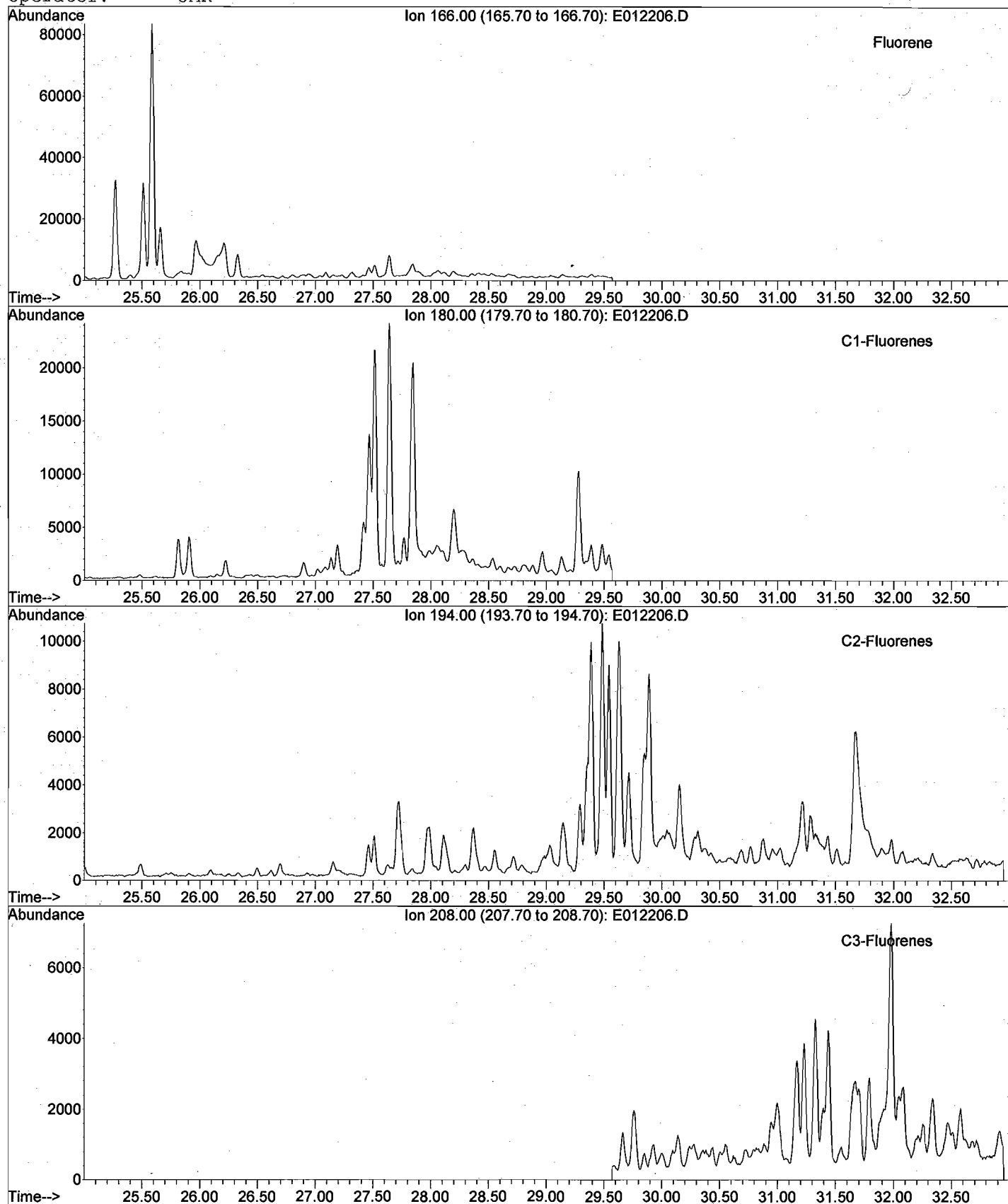
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Operator: JAR



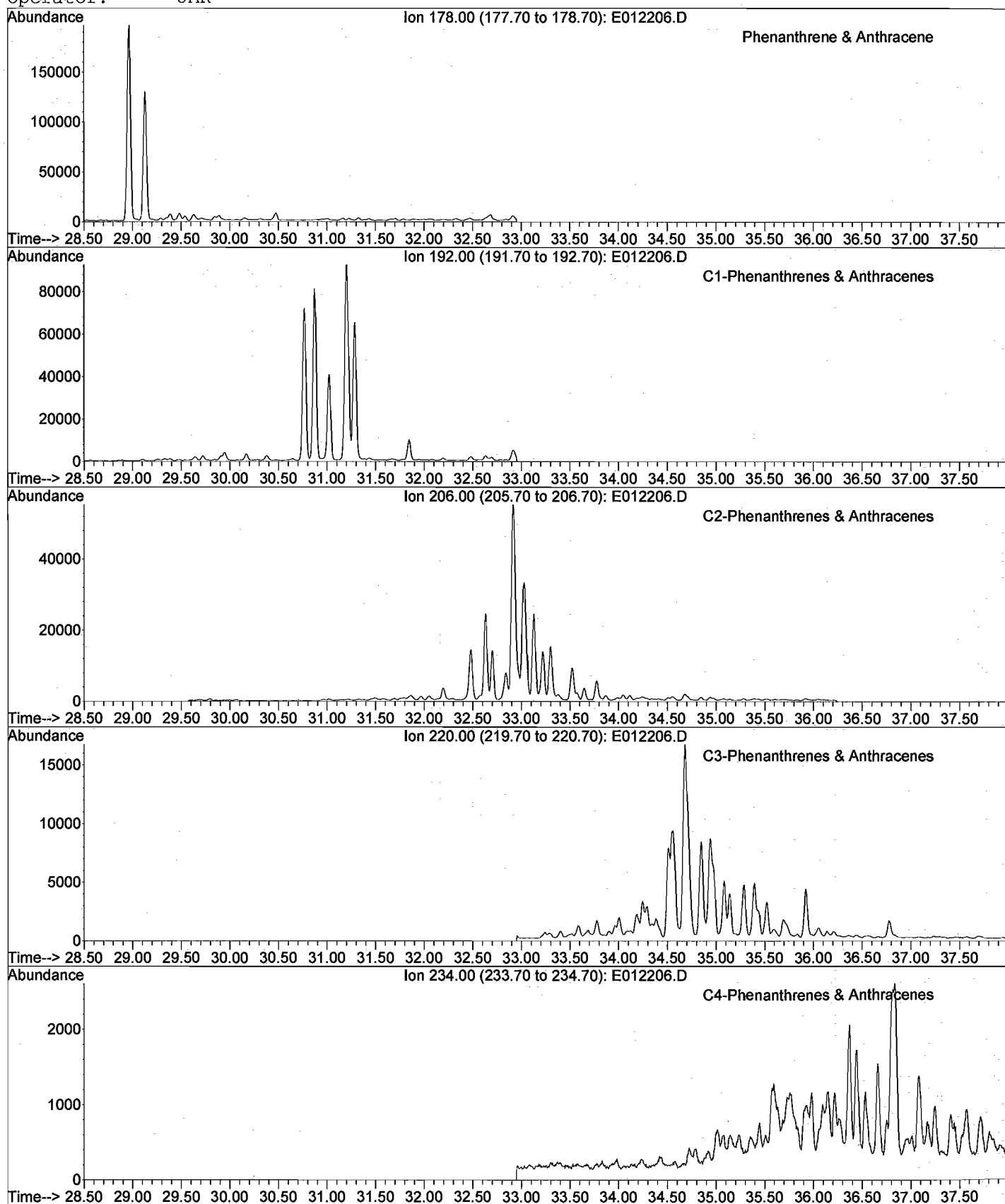
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Misc Info: 0801605-001D
Operator: JAR



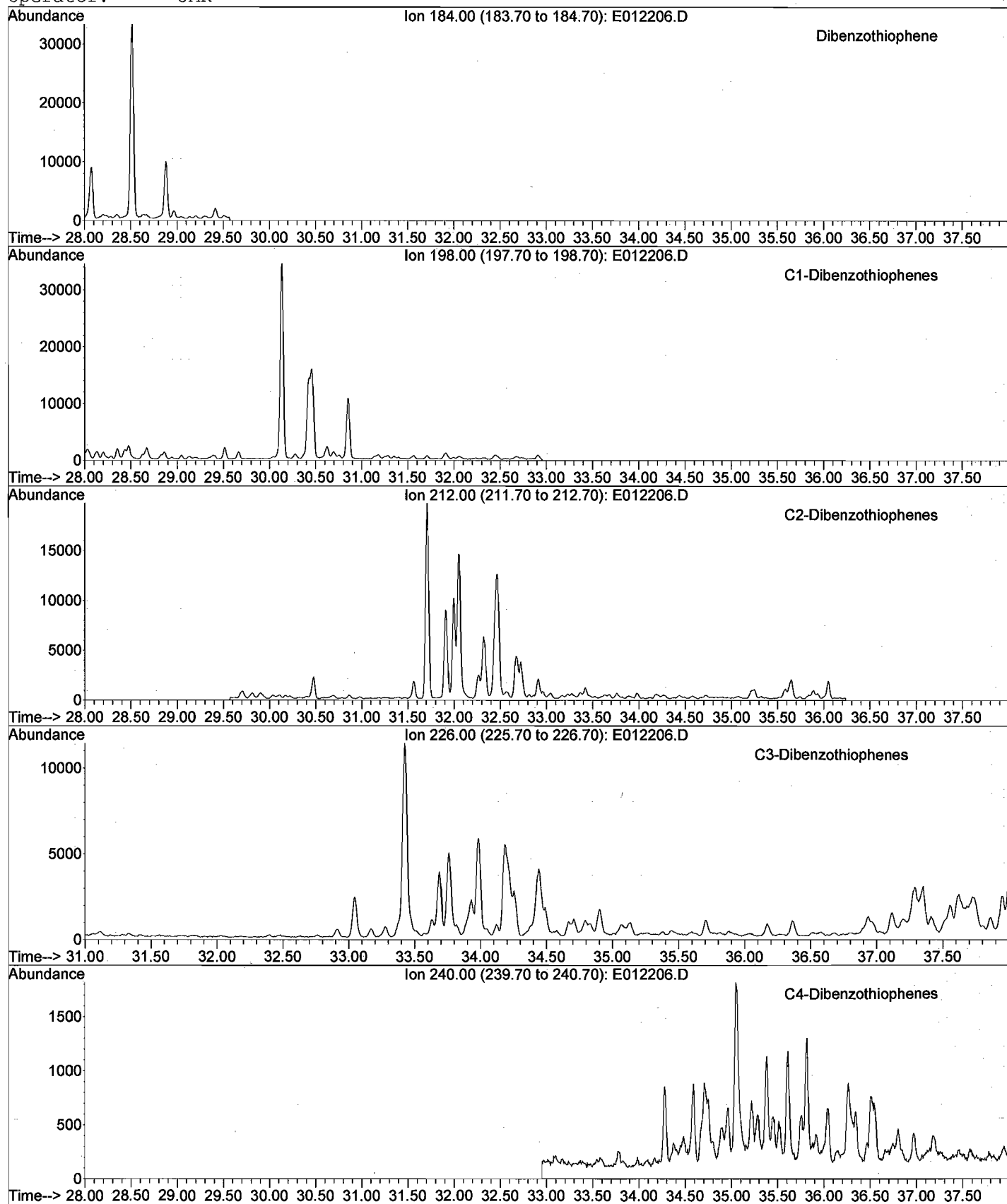
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Misc Info: 0801605-001D
Operator: JAR



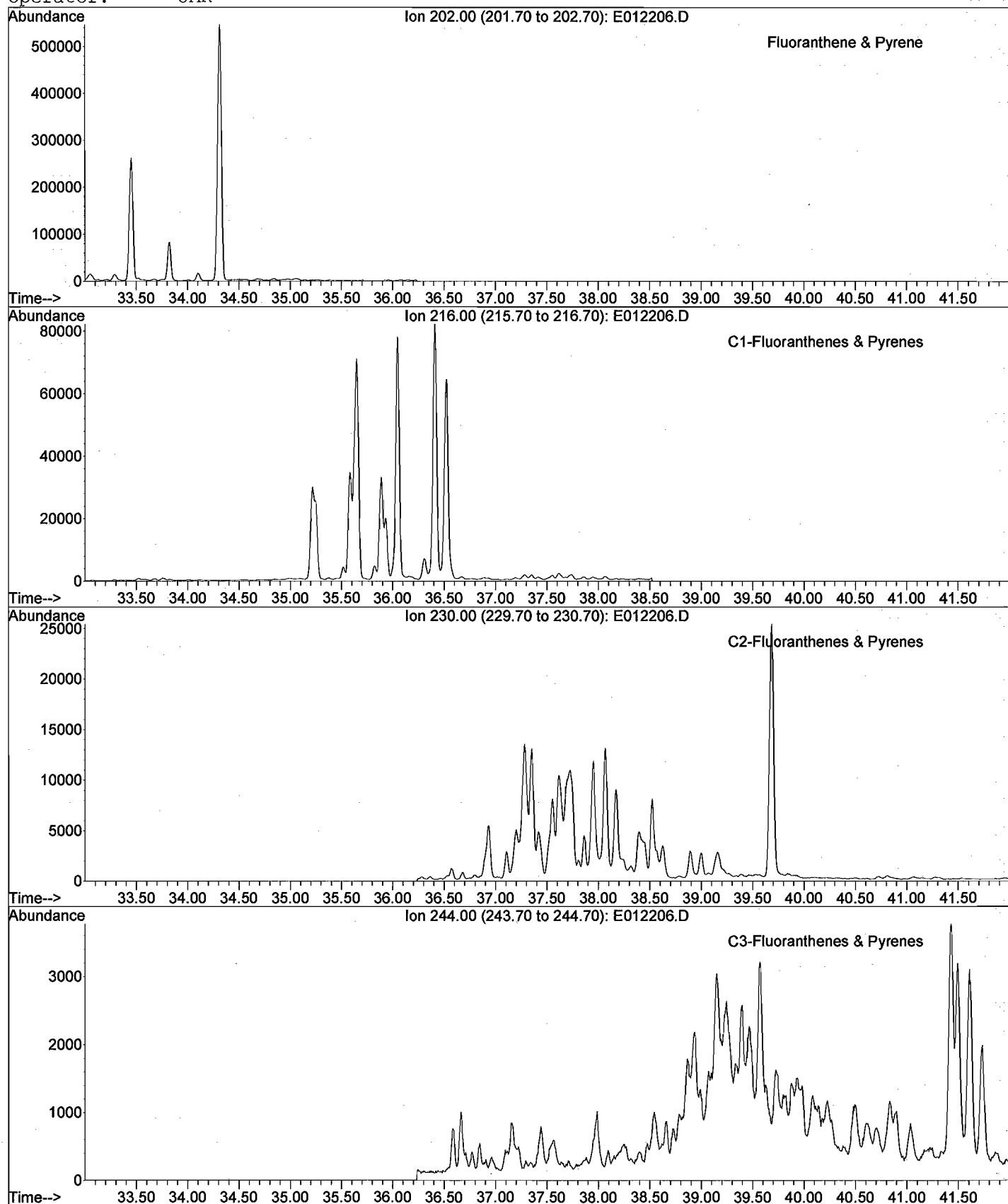
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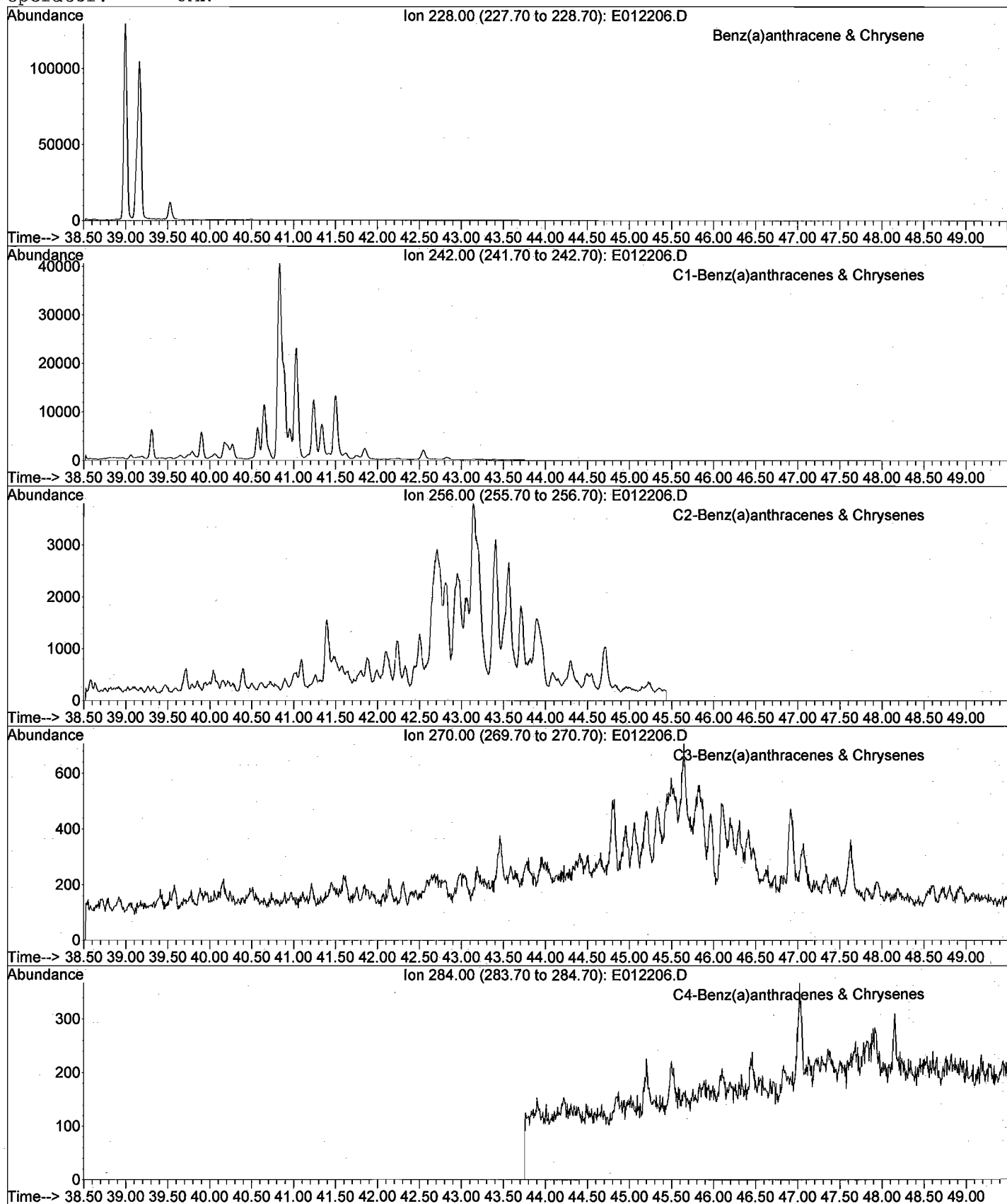
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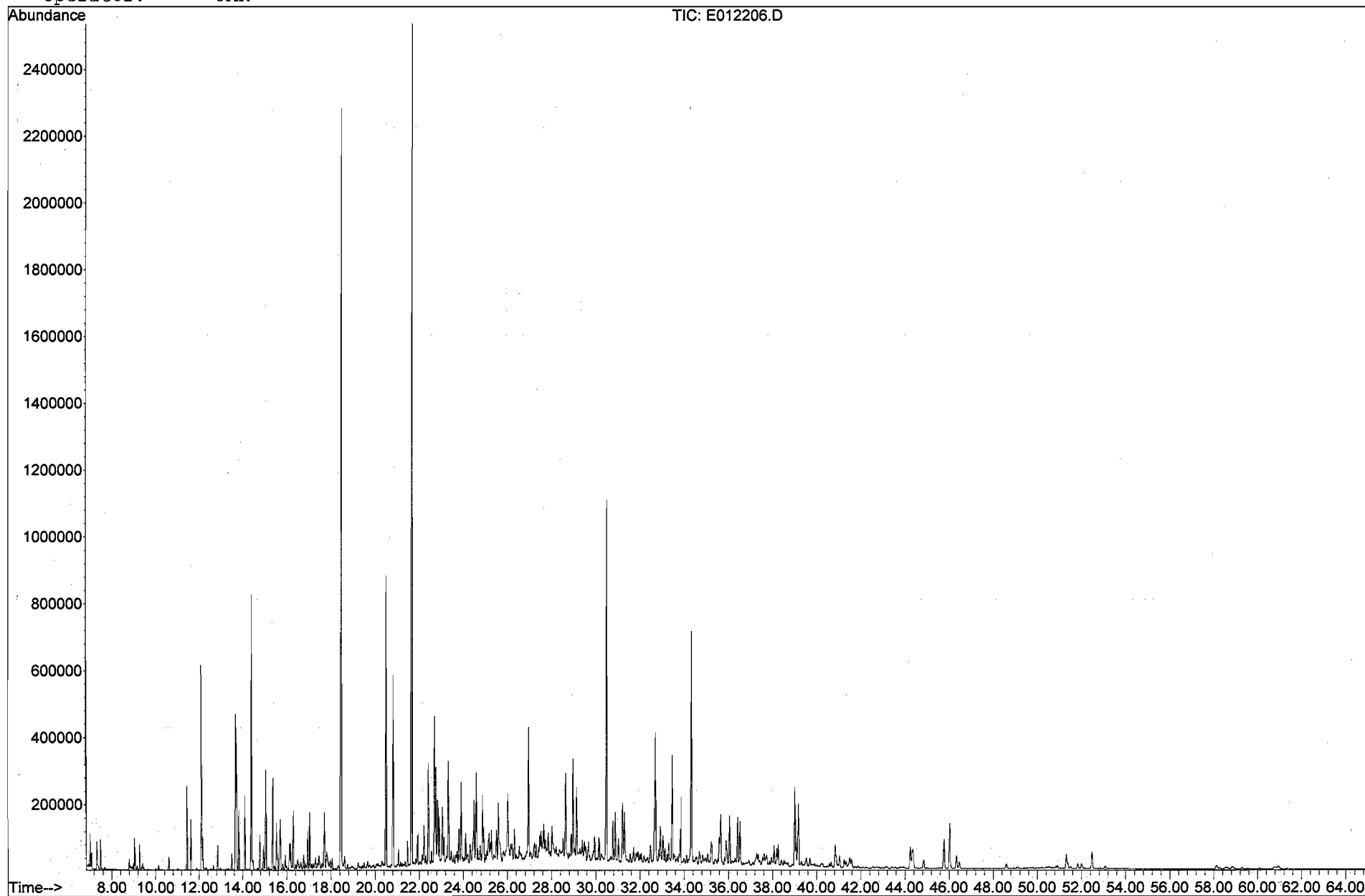
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Operator: JAR



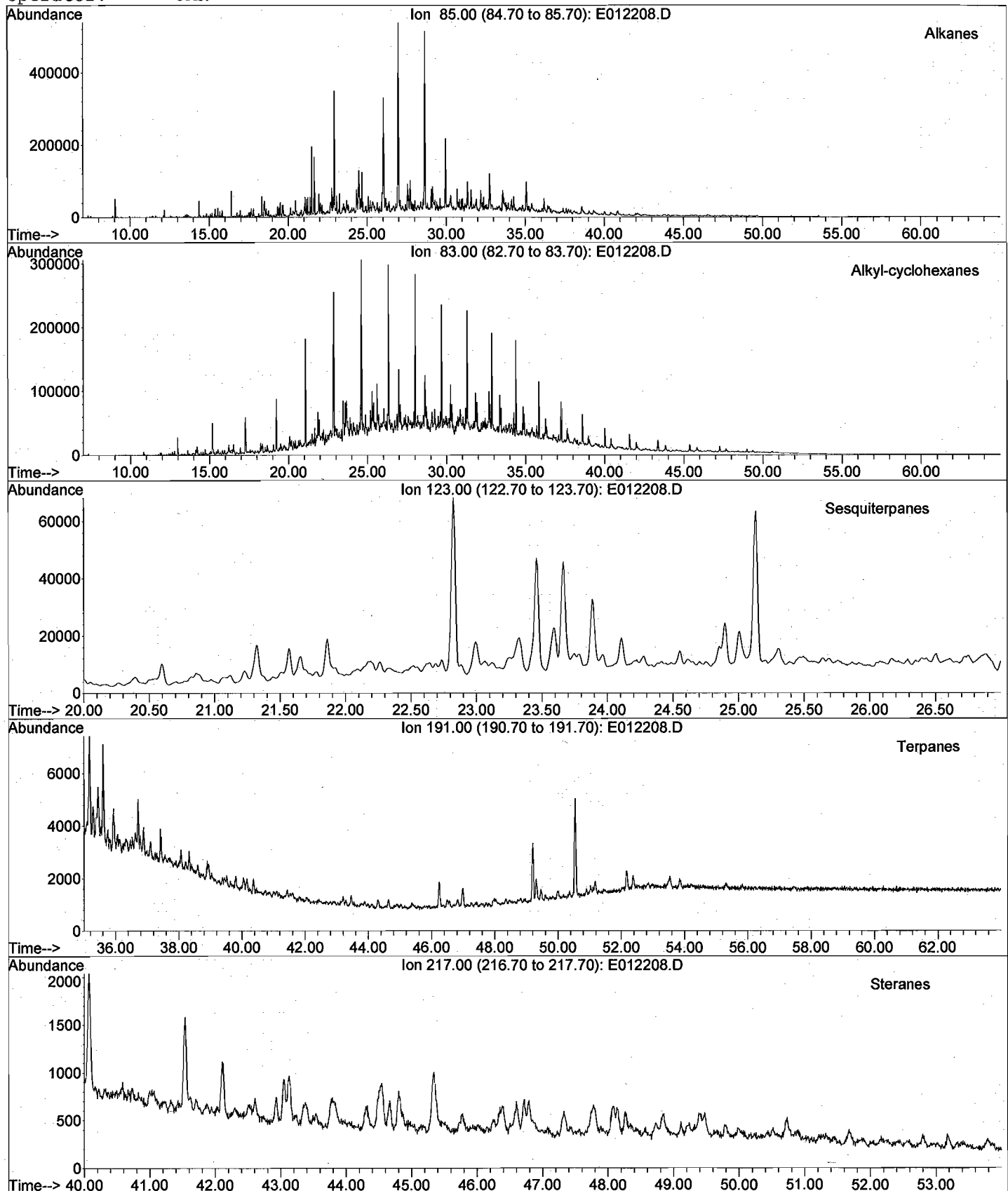
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Misc Info: 0801605-001D
Operator: JAR



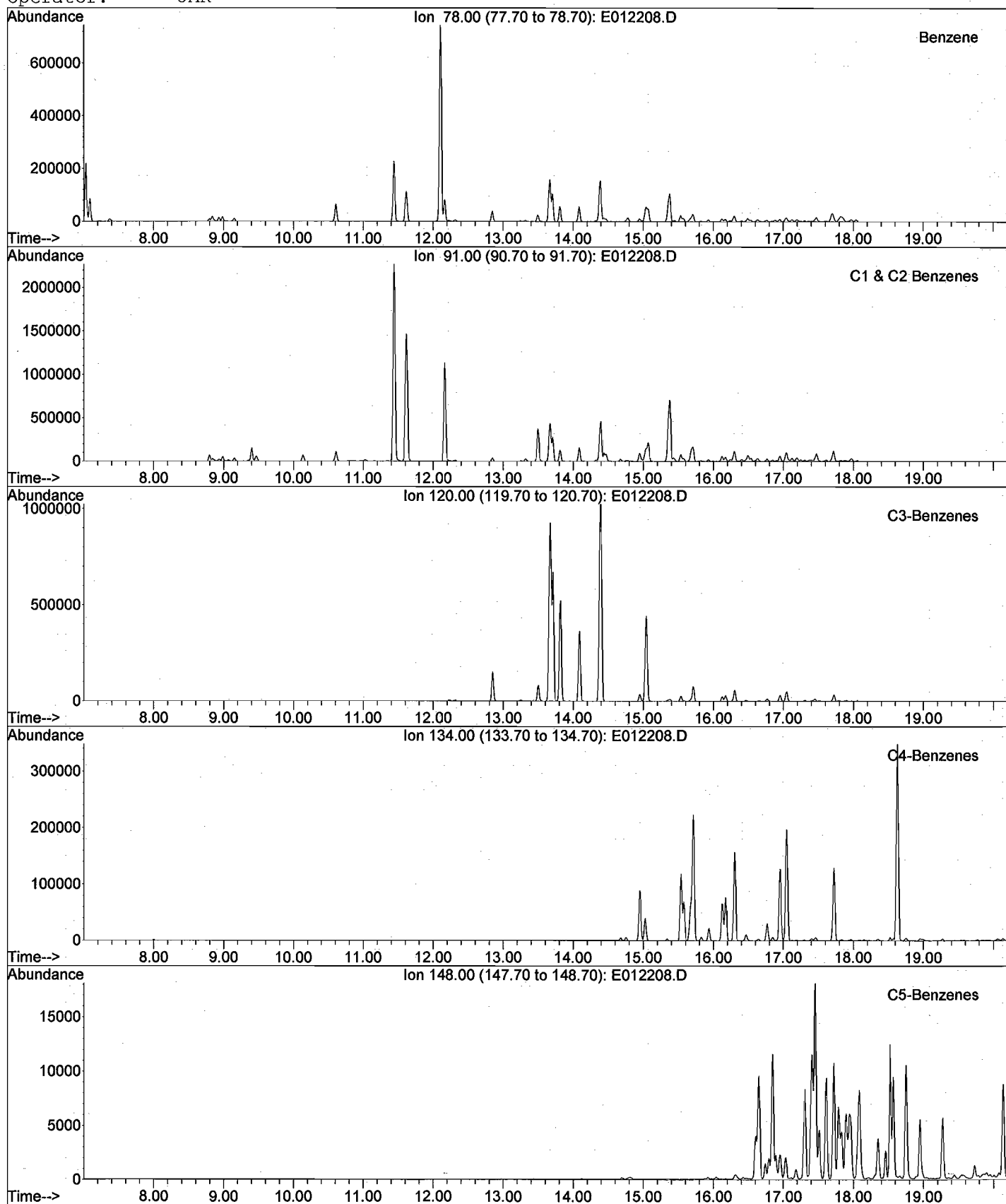
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Method File: 4008SIMT.M
Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



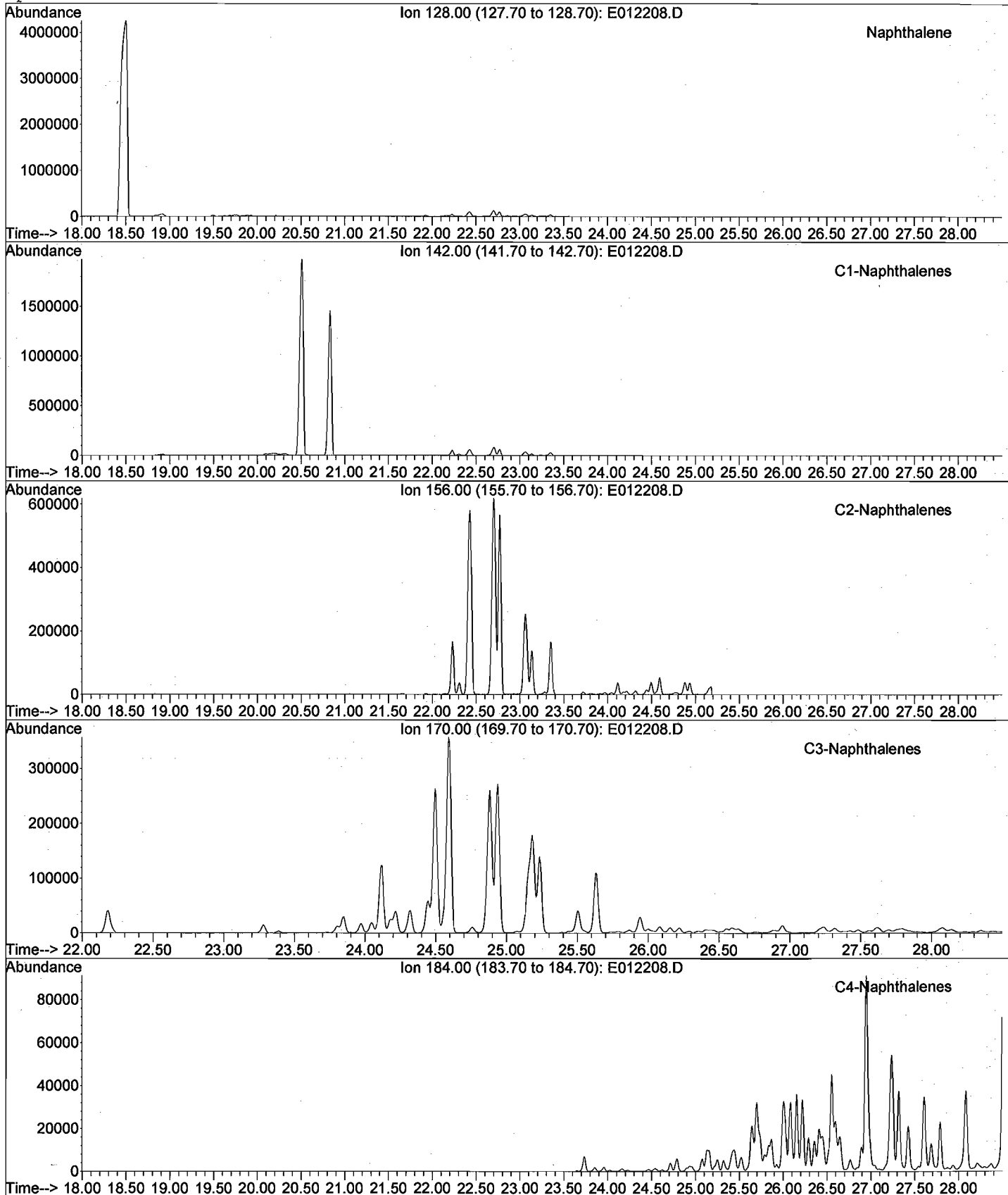
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Method File: 4008SIMT.M
Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



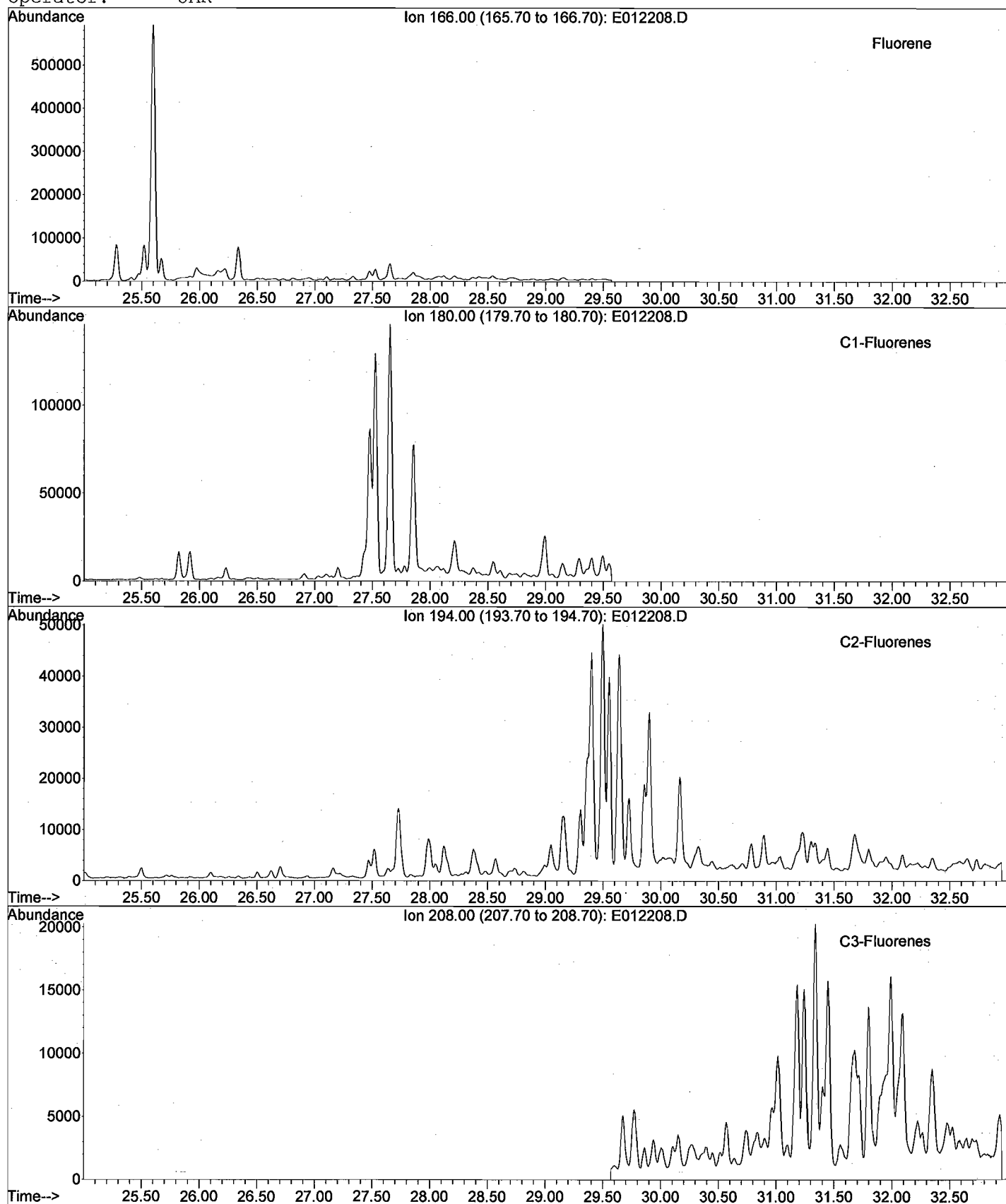
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Method File: 4008SIMT.M
Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



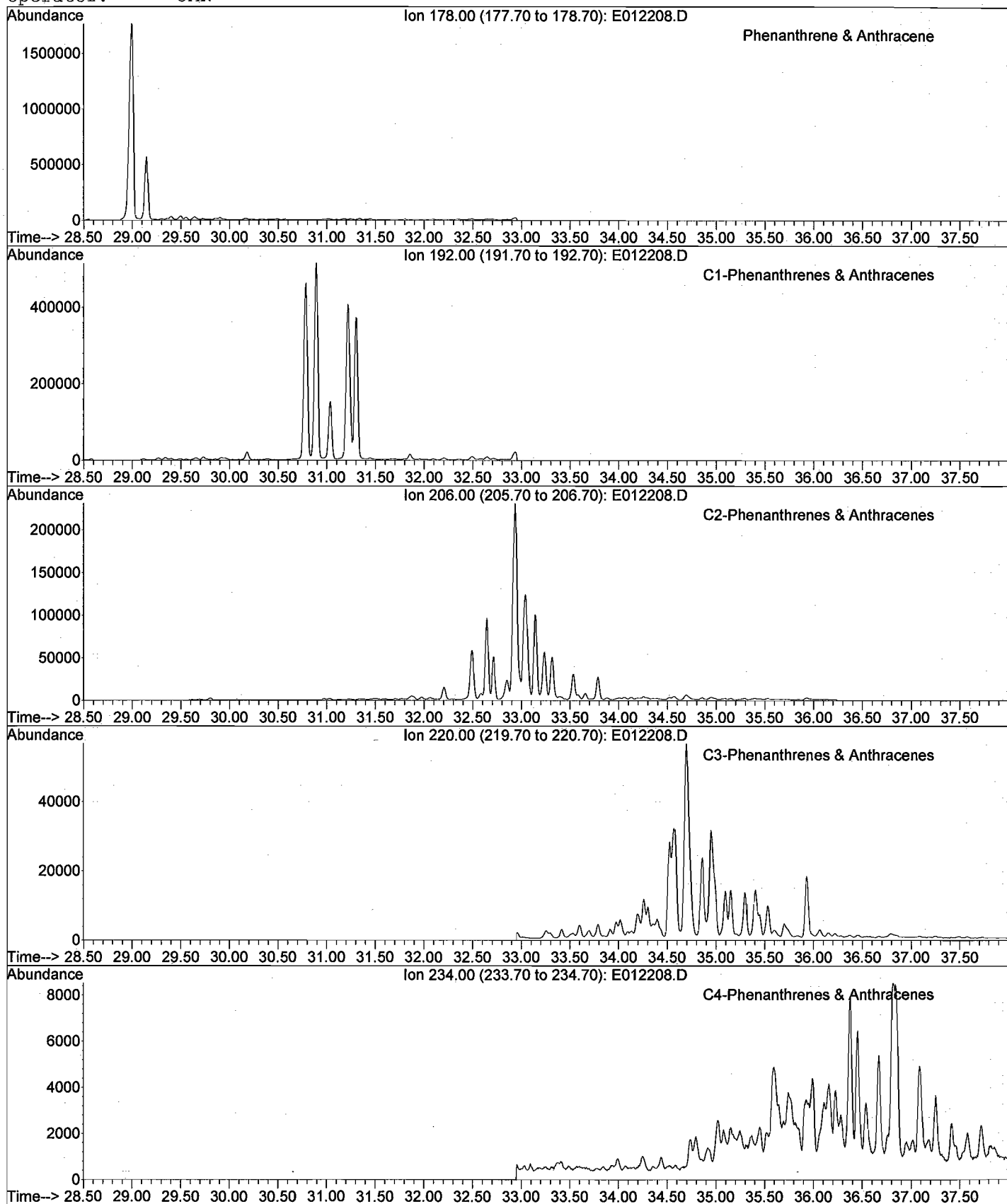
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Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



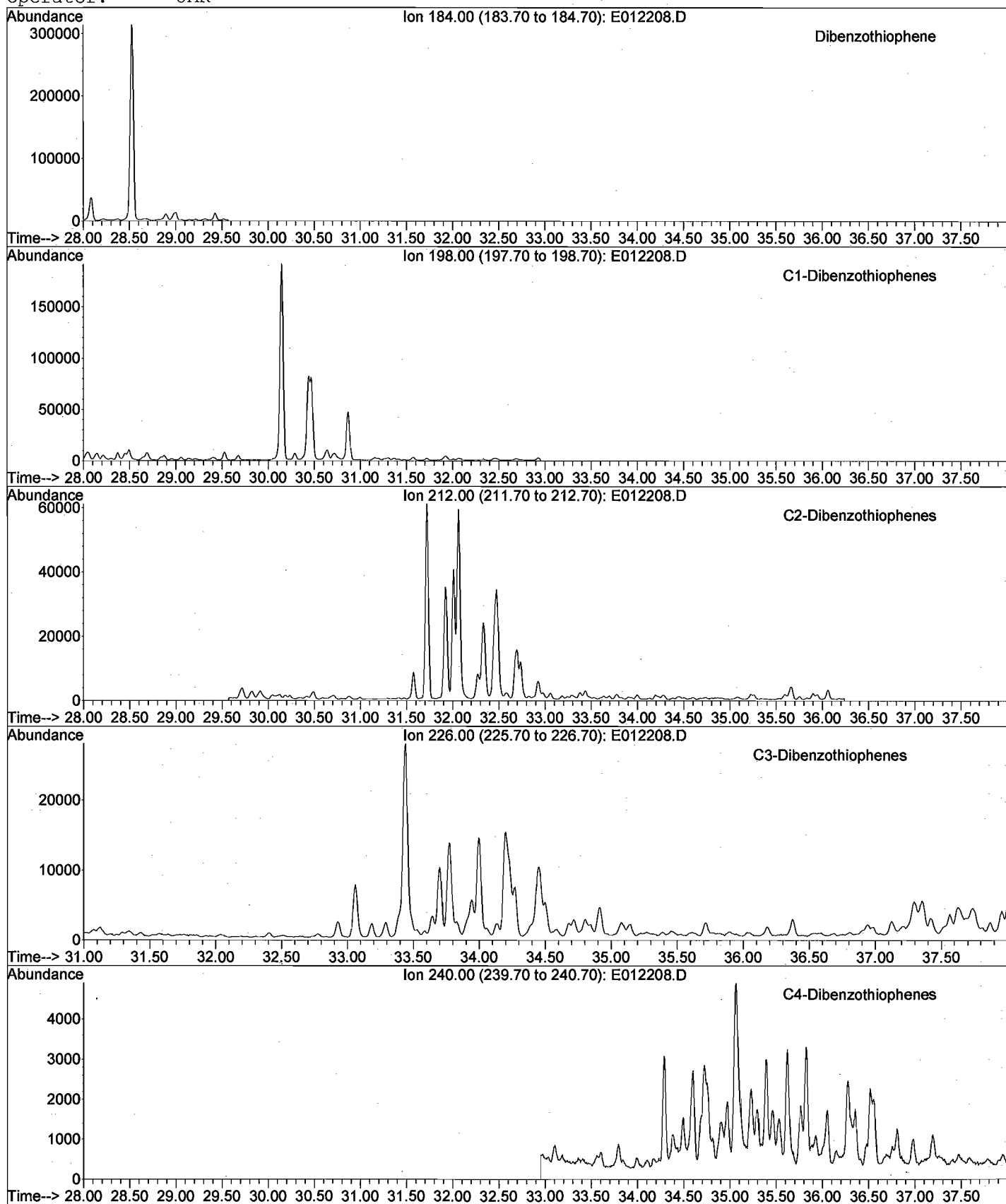
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Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



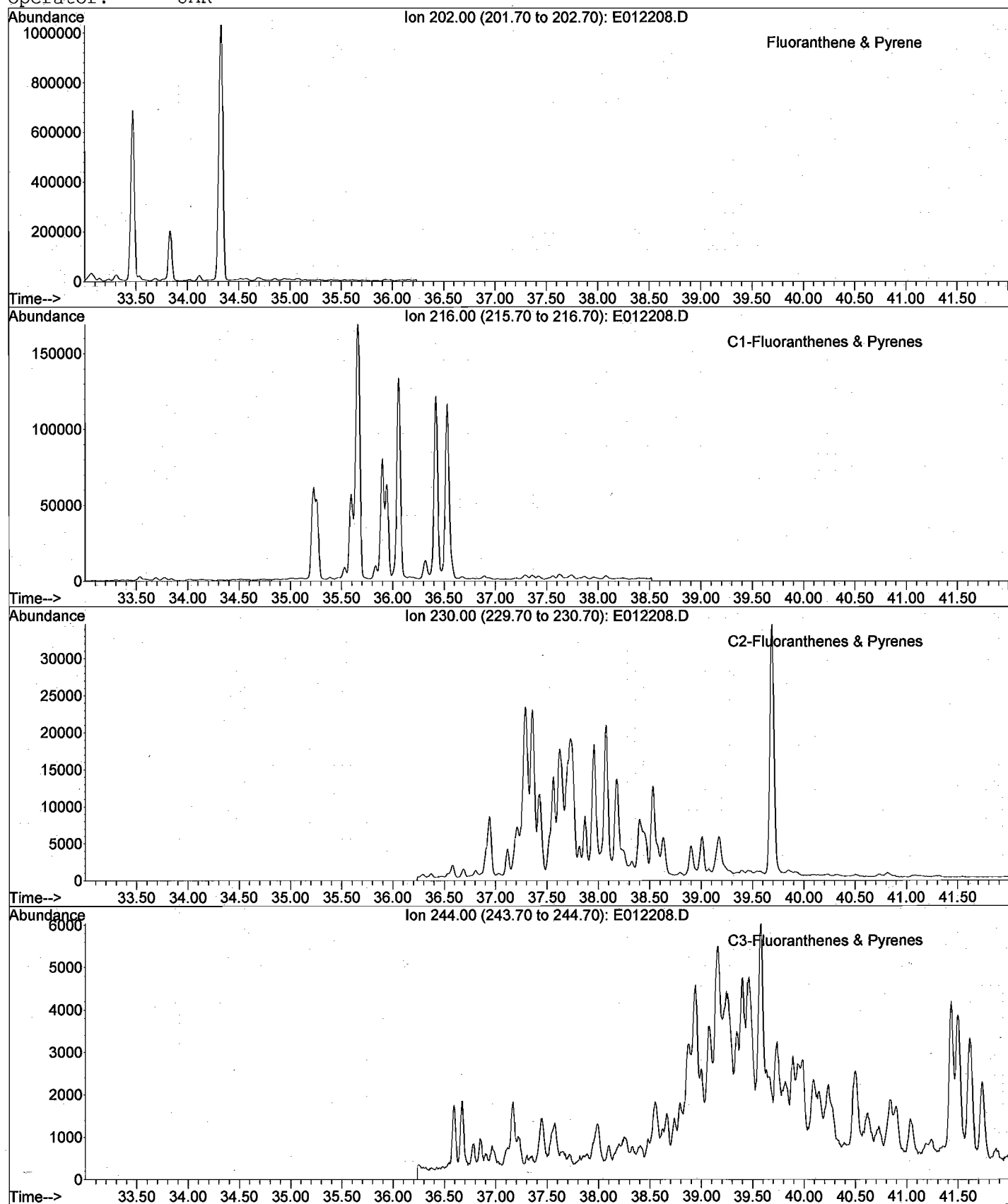
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Misc Info: 0801605-002D
Operator: JAR



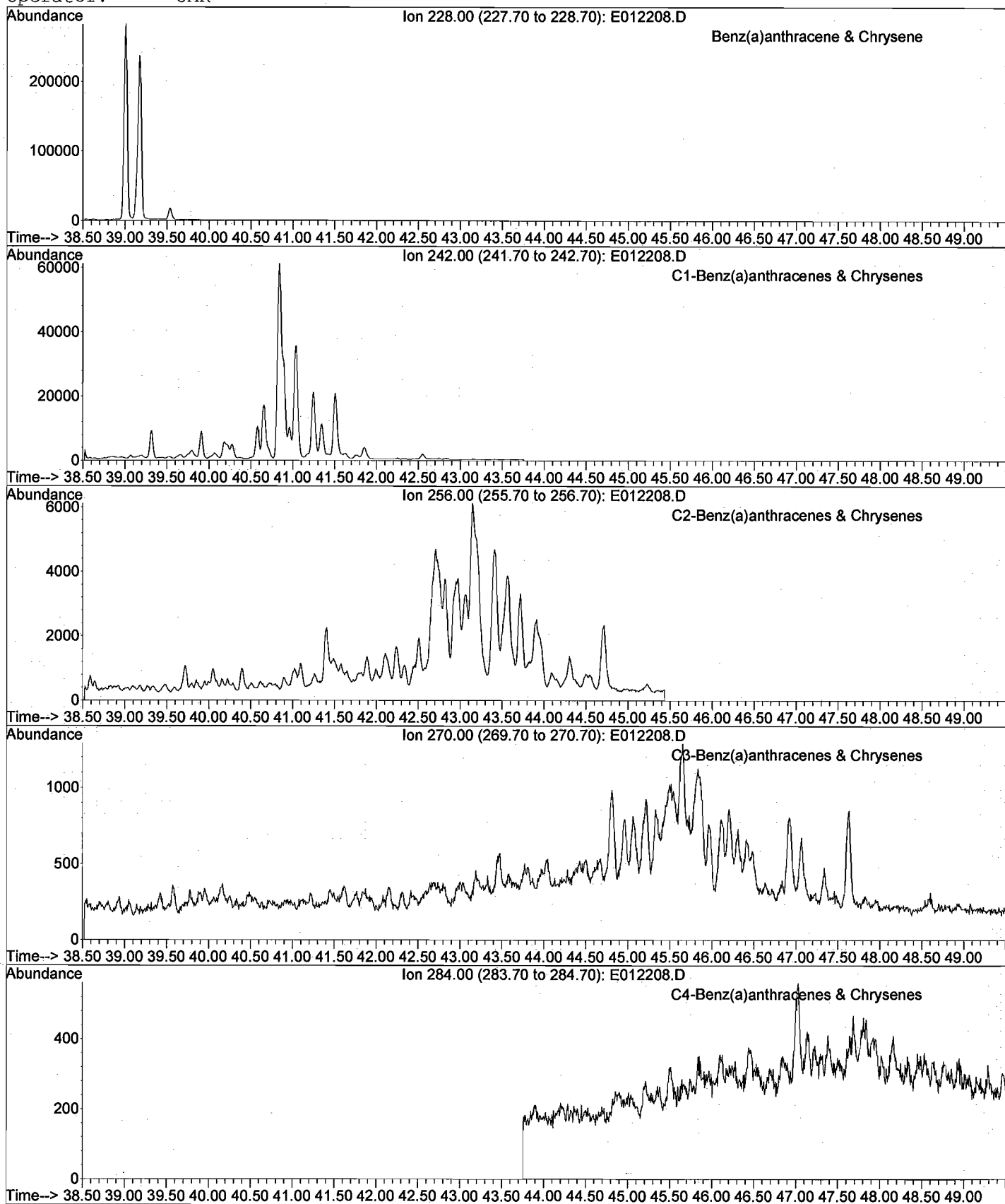
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Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR



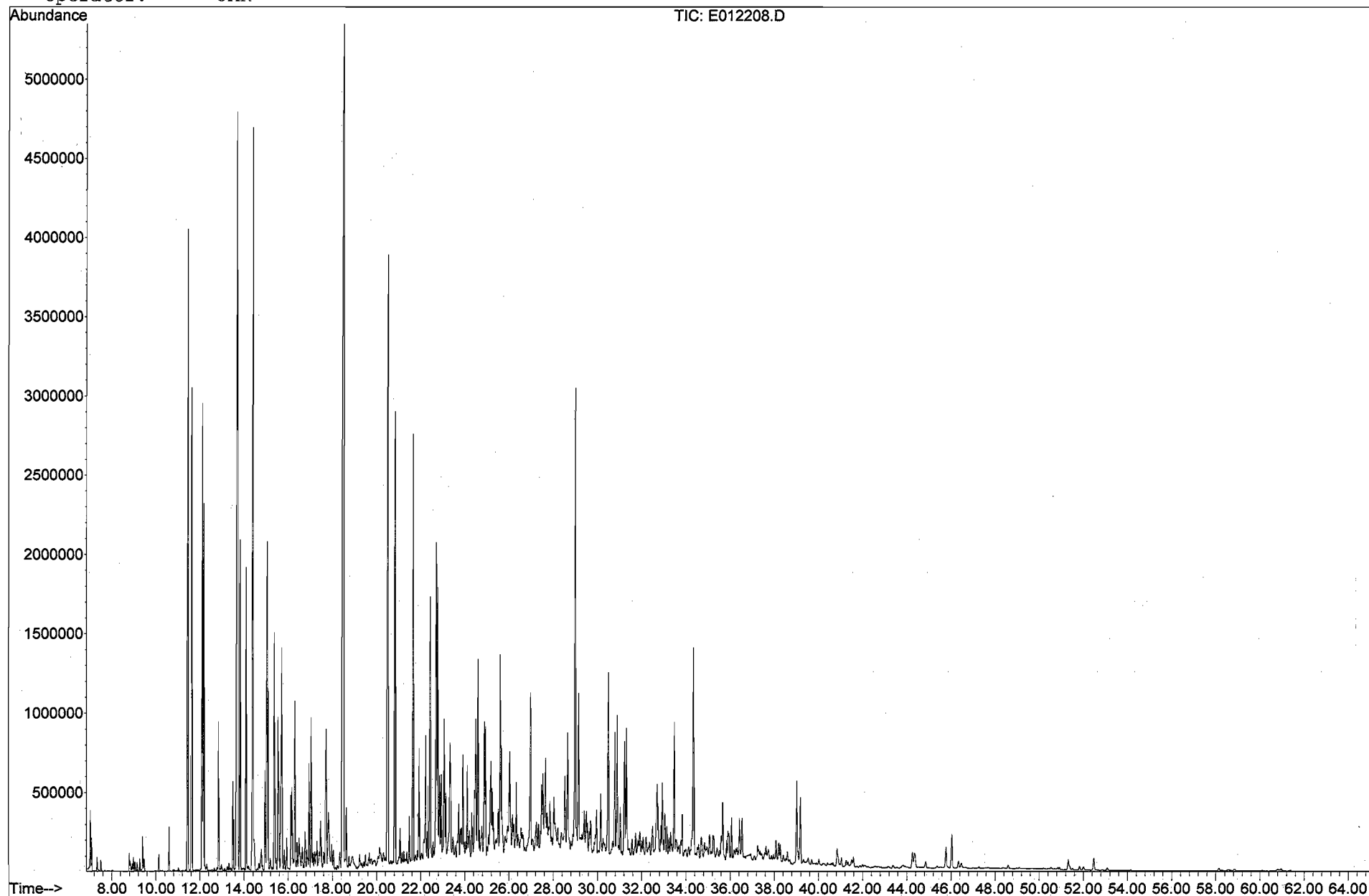
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Operator: JAR



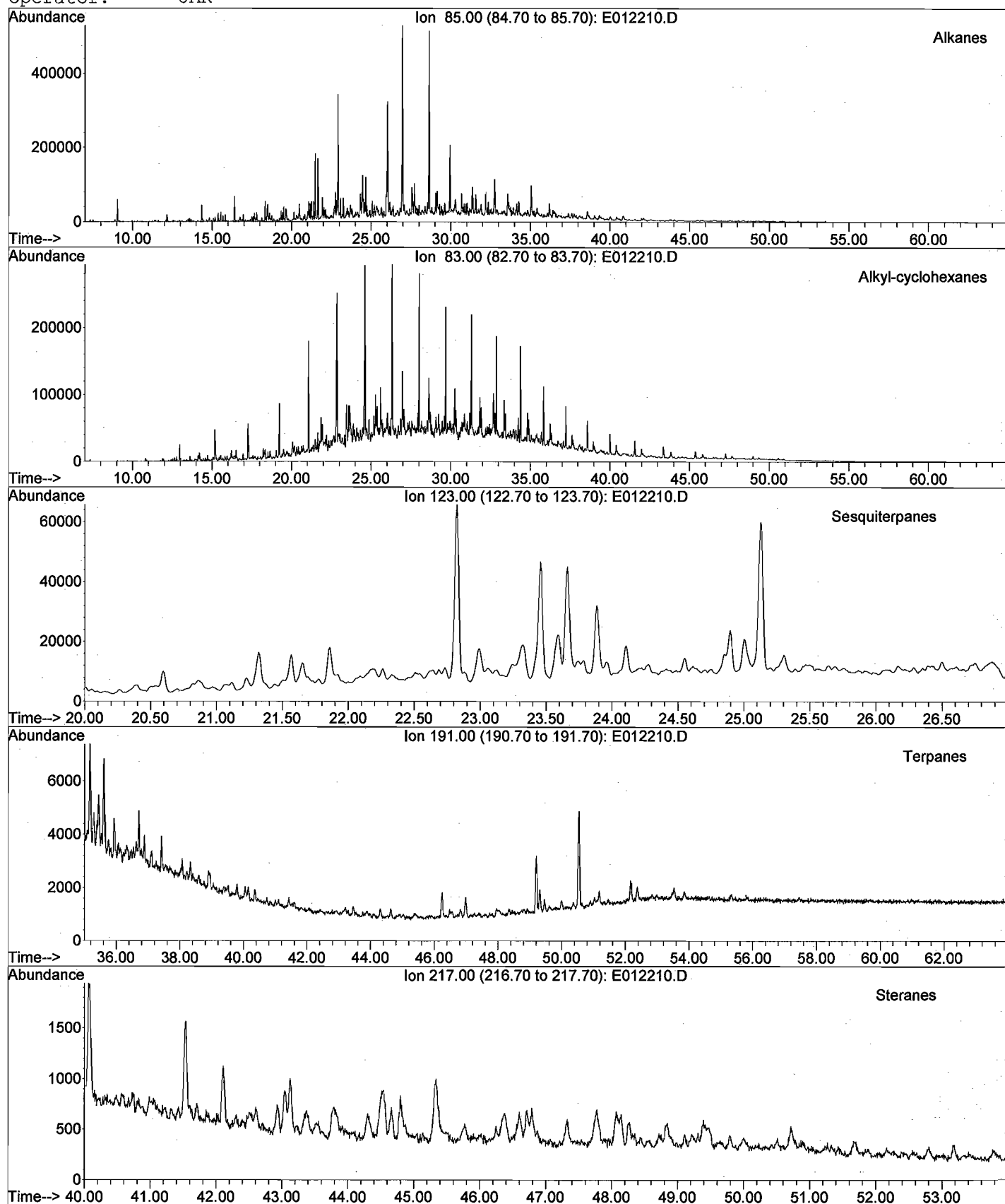
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Operator: JAR



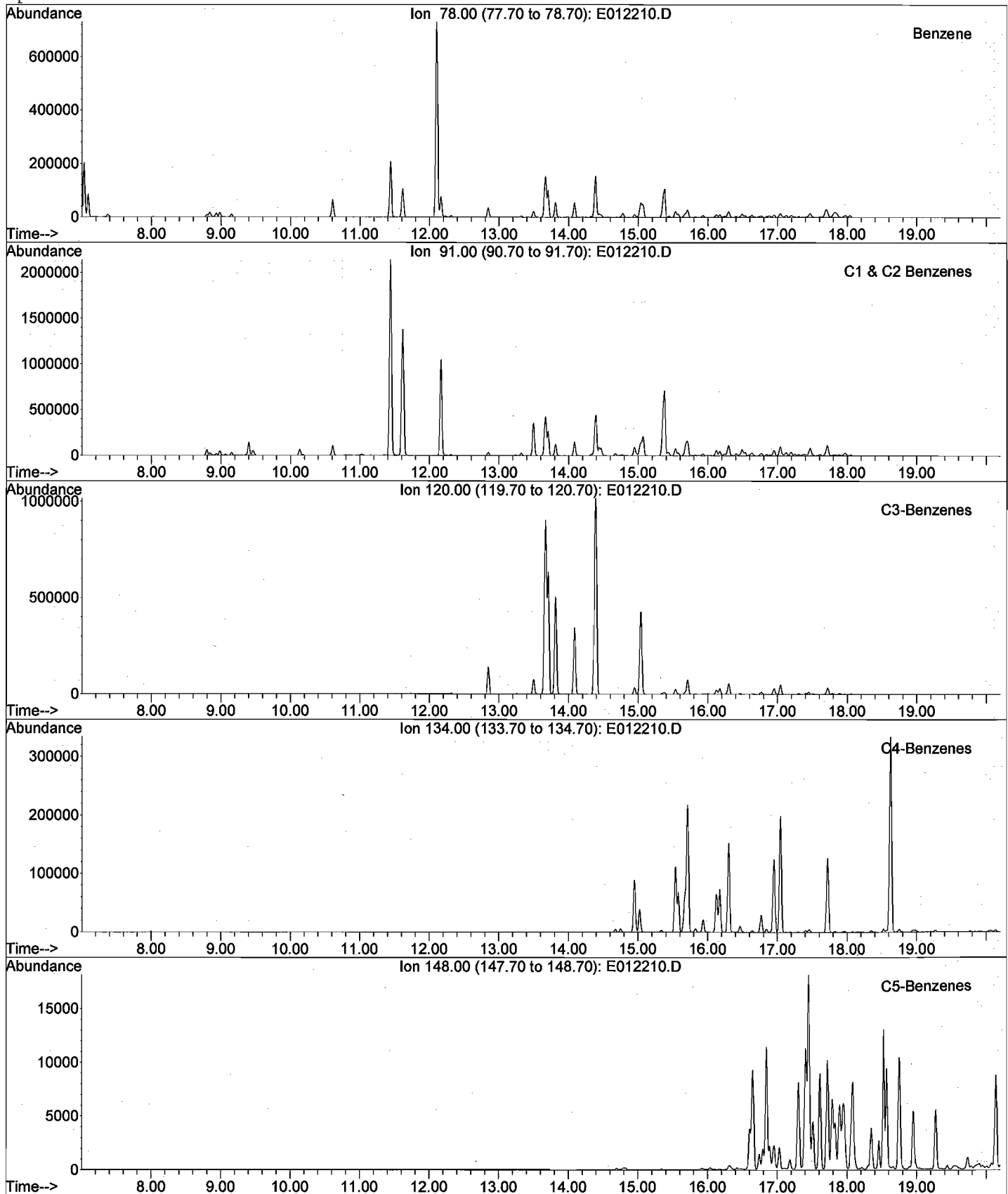
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Misc Info: Duplicate of 0801605-002D
Operator: JAR



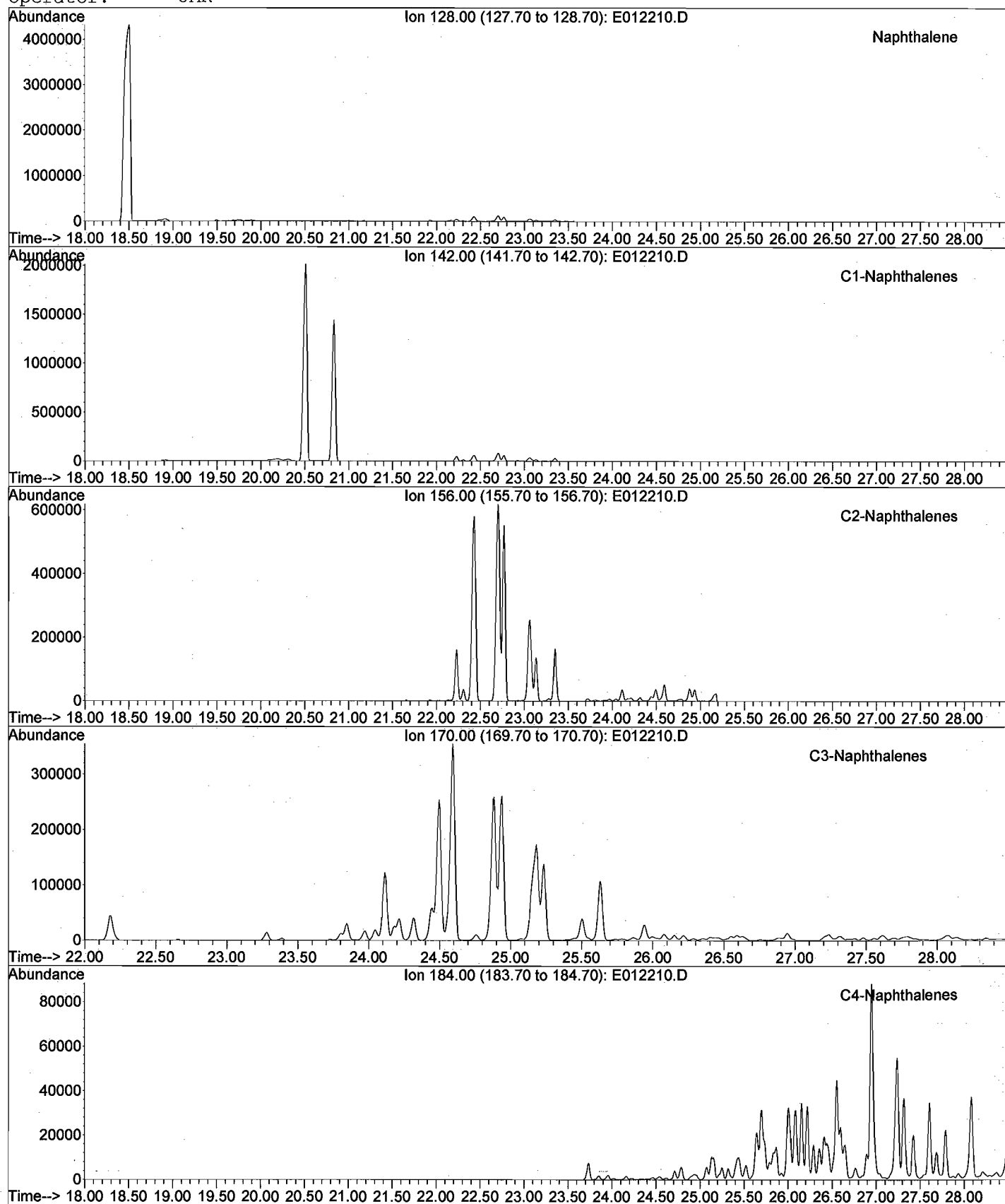
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Operator: JAR



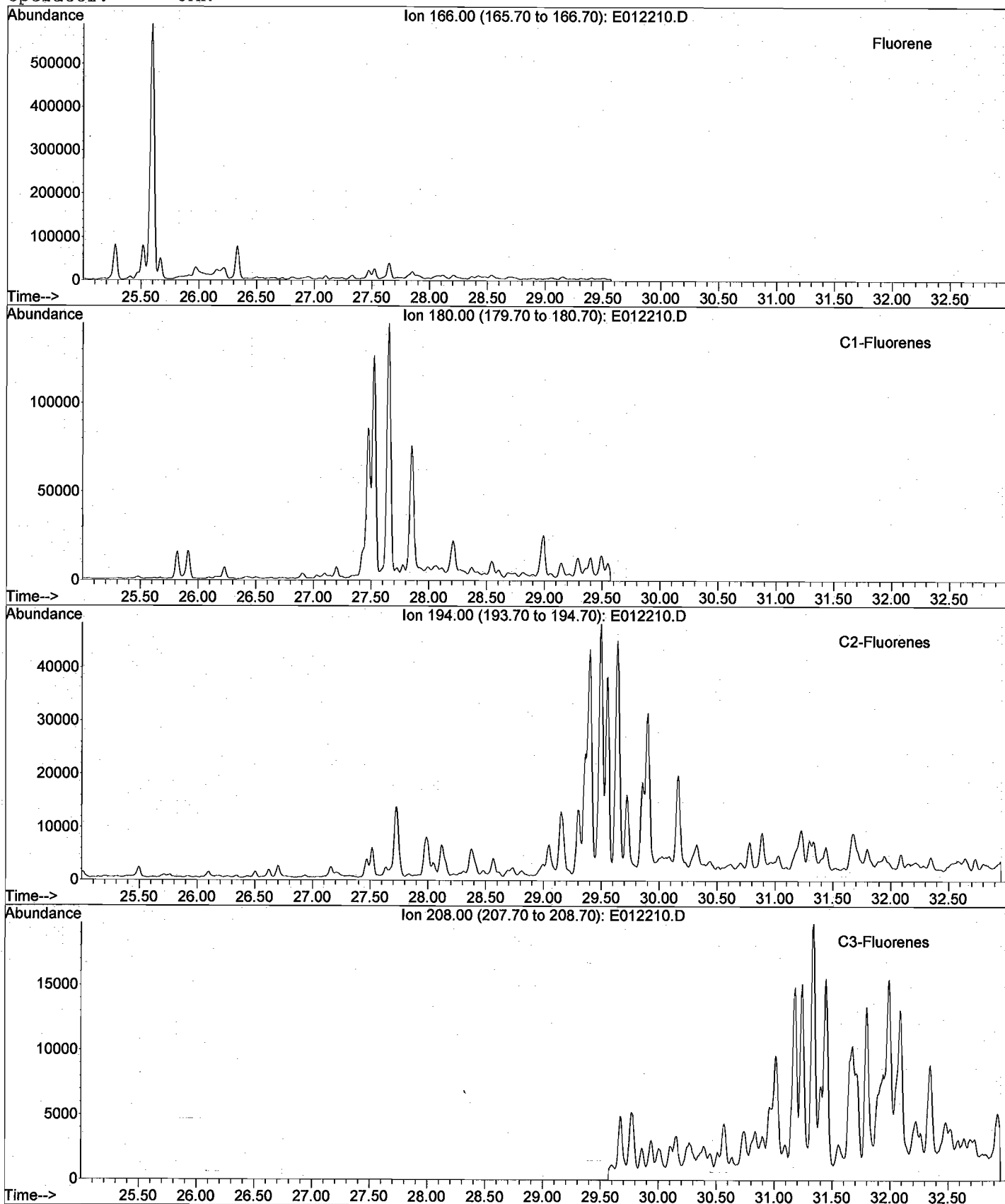
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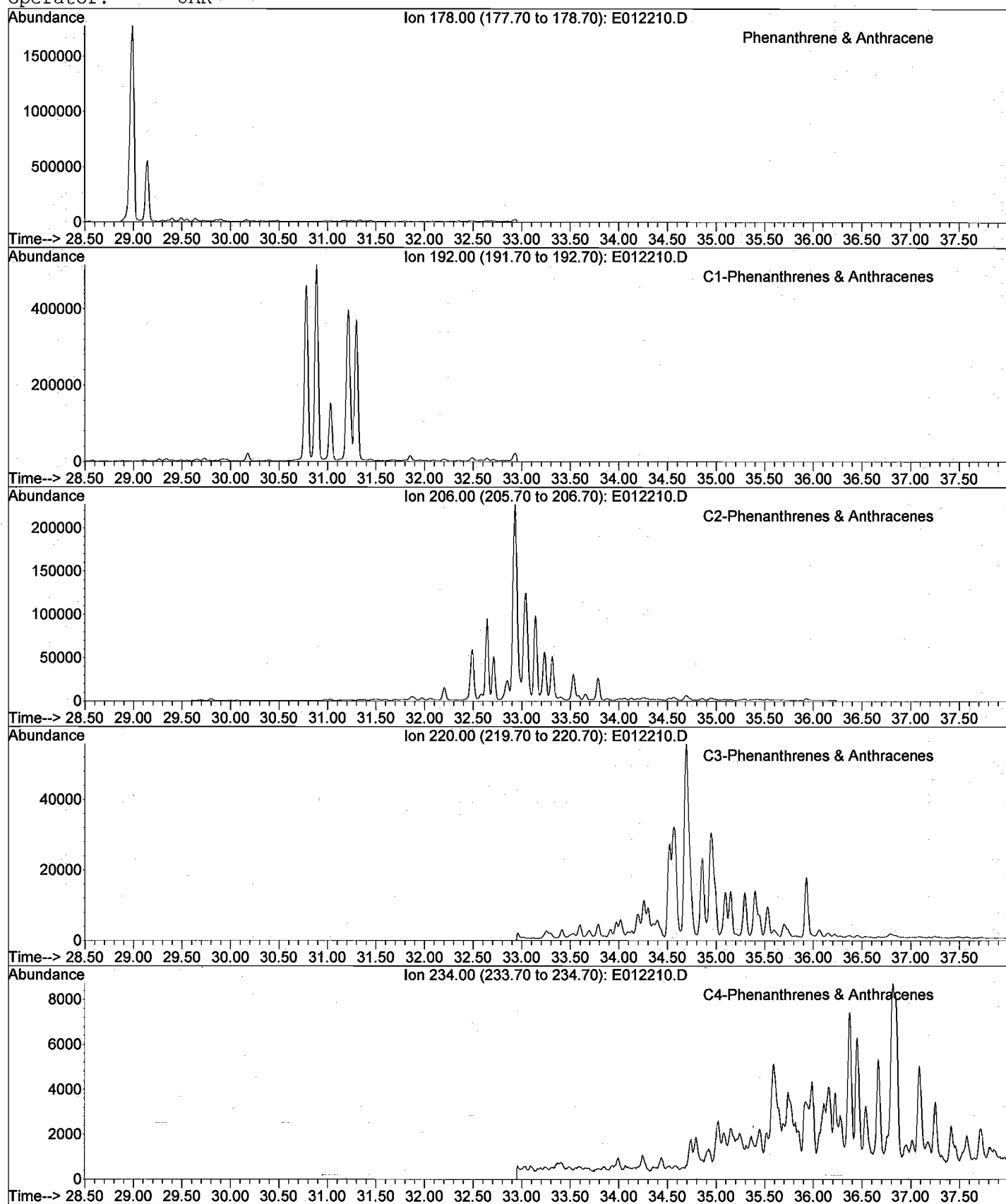
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Operator: JAR



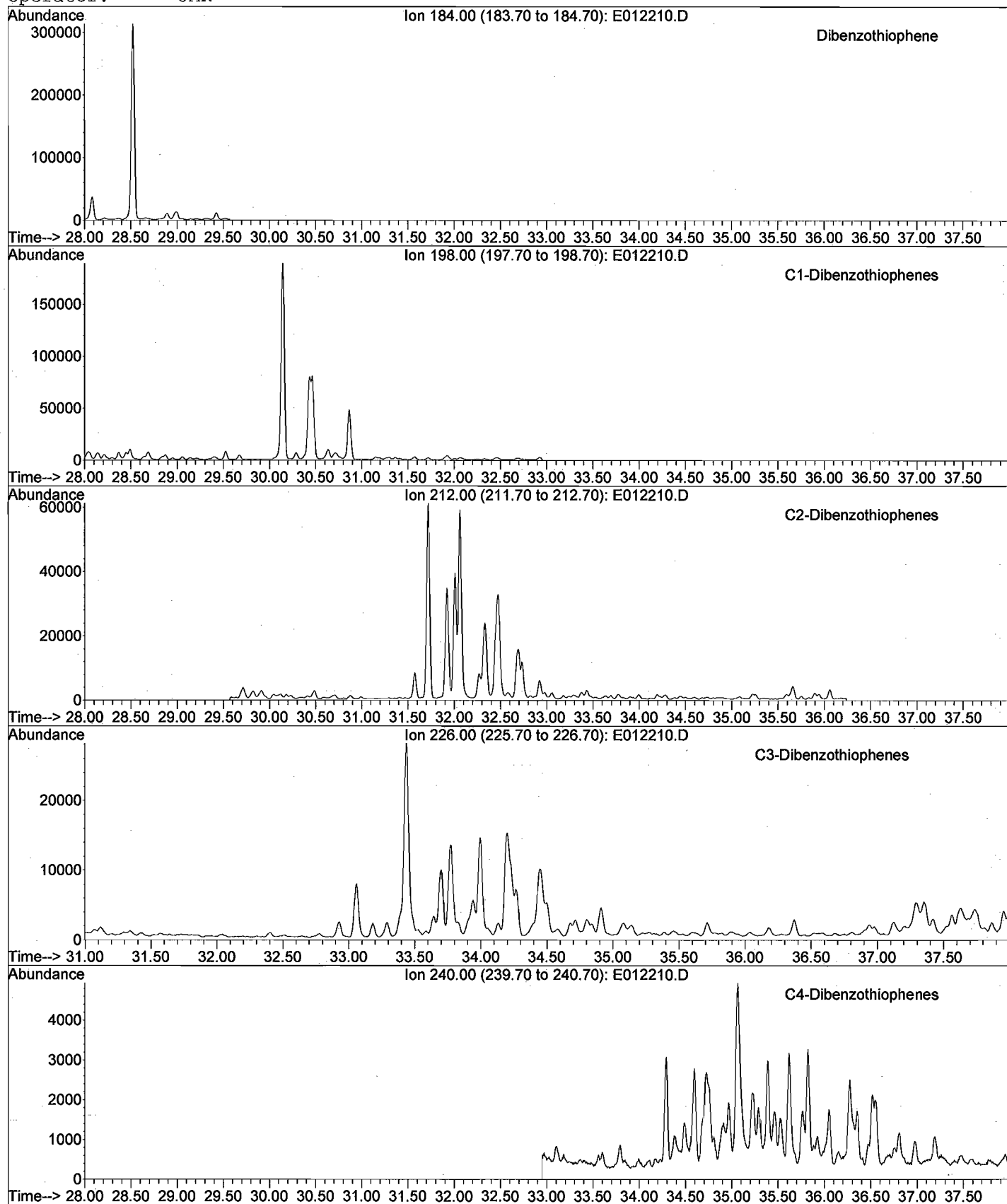
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Misc Info: Duplicate of 0801605-002D
Operator: JAR



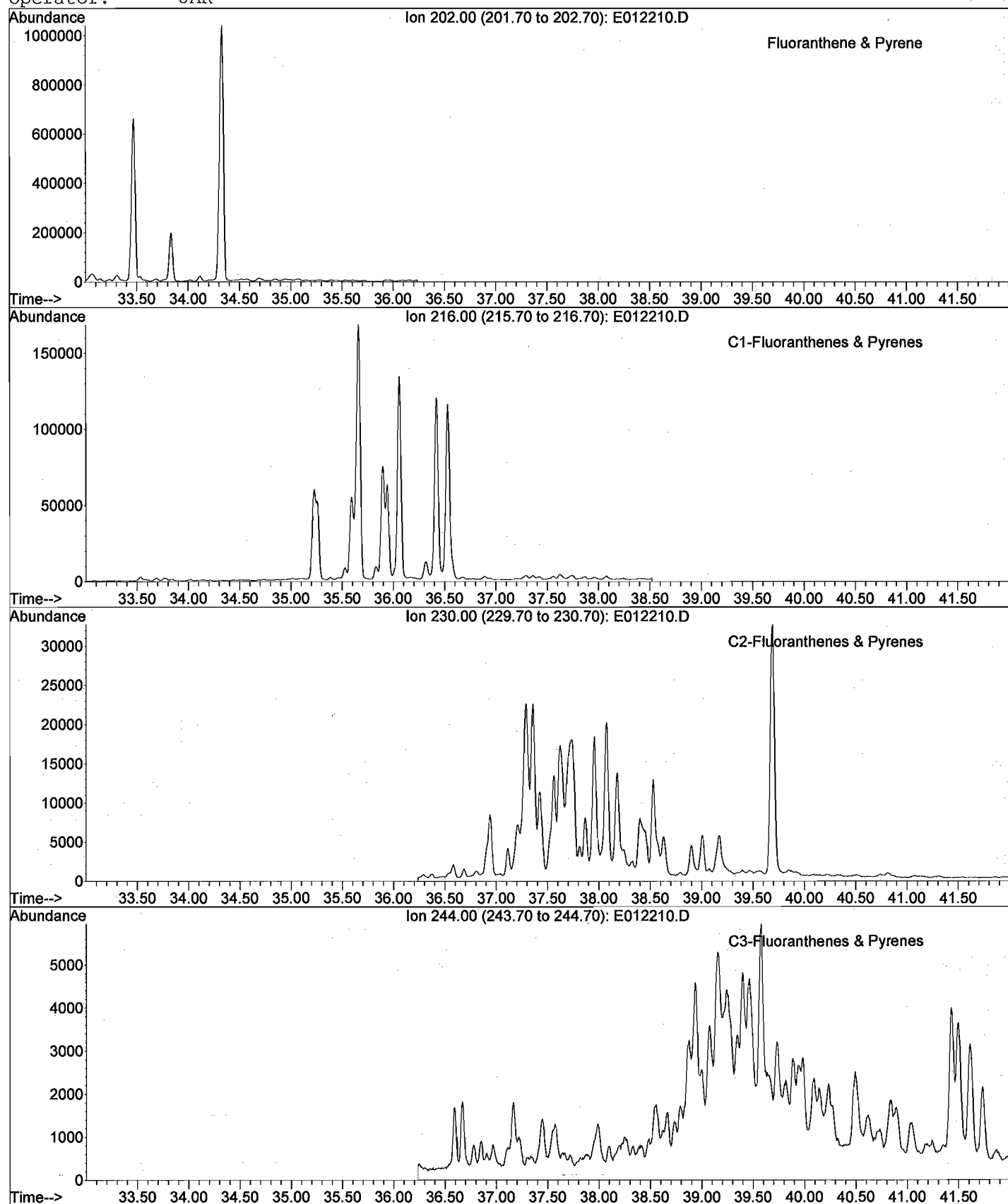
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Operator: JAR



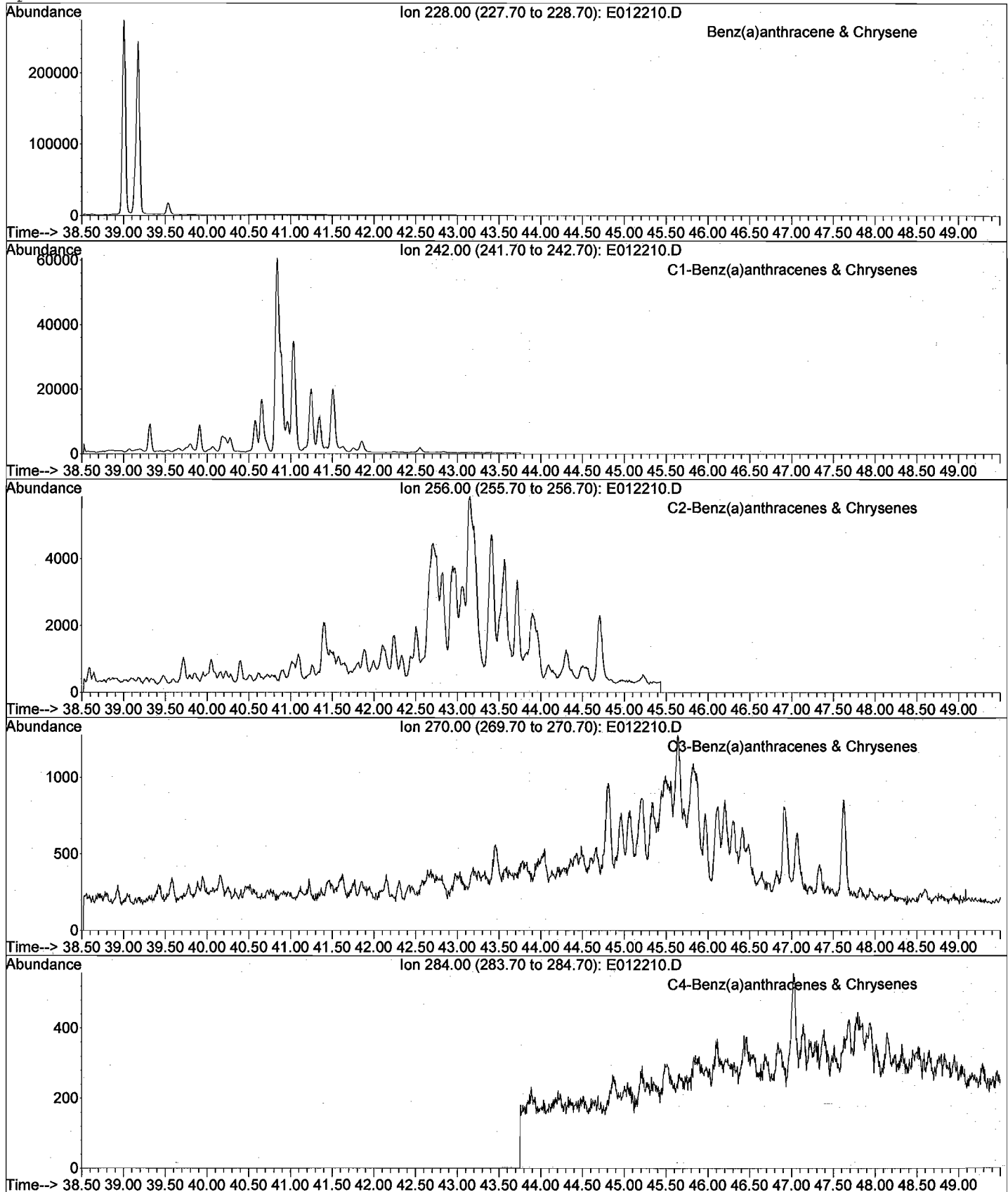
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Operator: JAR



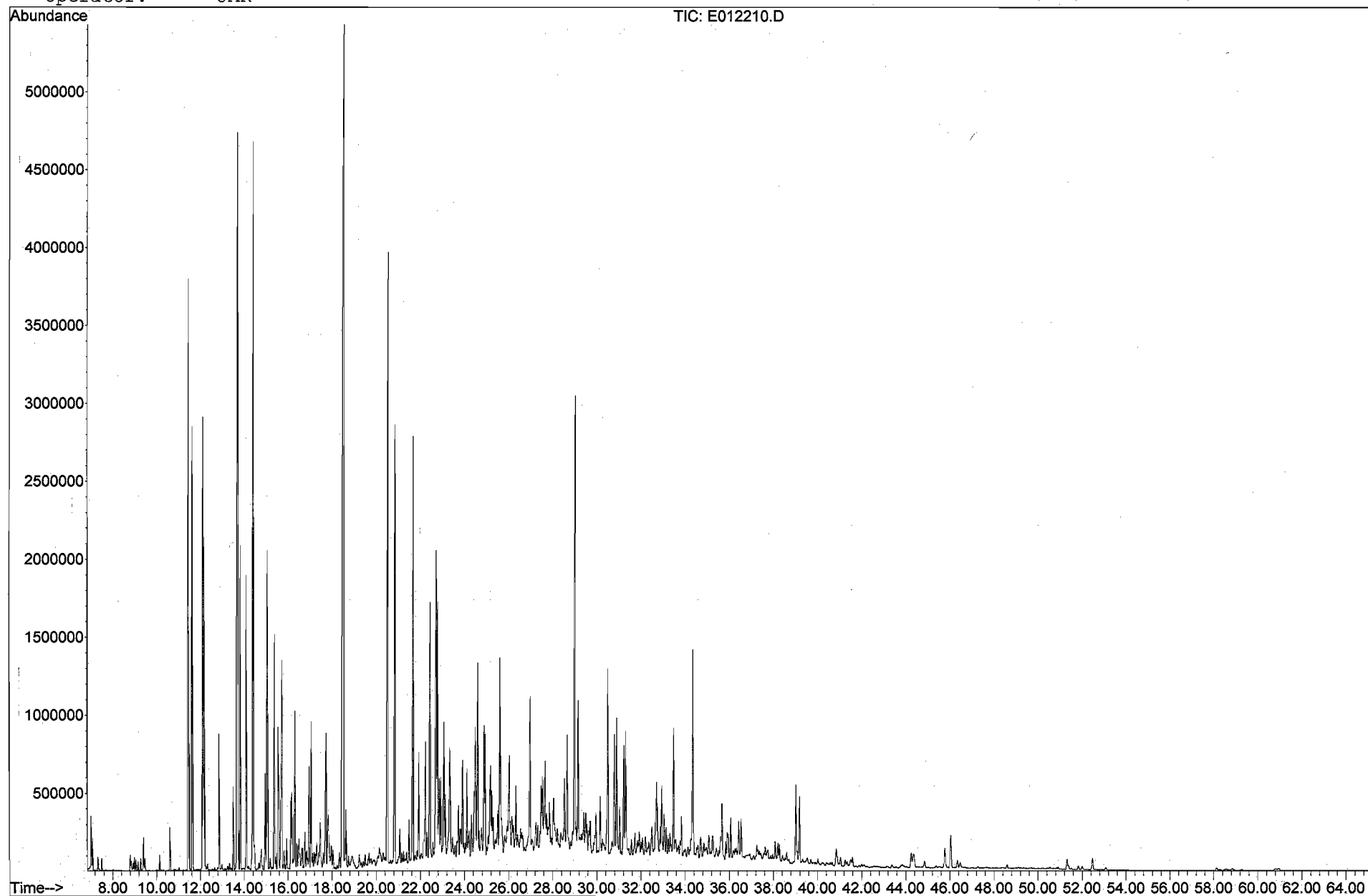
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Sample Name: HC080118-02DUP
Misc Info: Duplicate of 0801605-002D
Operator: JAR



GC/MS TOTAL ION CHROMATOGRAM

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Method File: 4008SIMT.M
Sample Name: HC080118-02DUP
Misc Info: Duplicate of 0801605-002D
Operator: JAR

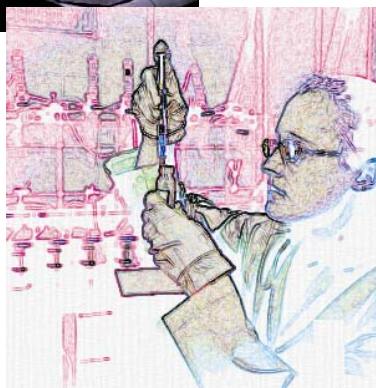


Appendix N
META Environmental Forensic Report
February 25, 2008

Environmental Forensic Report

KEY - URS

SDGs: HC080209



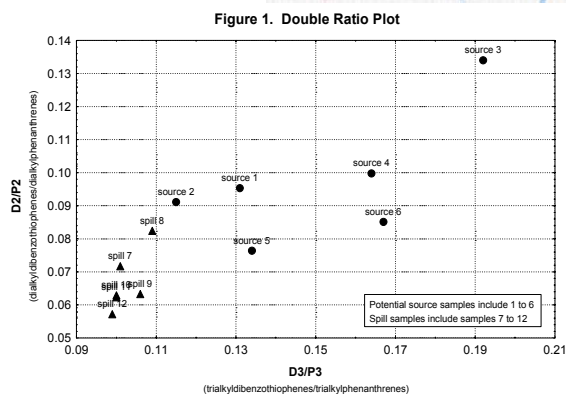
Report To:

H2M
575 Broadhollow Rd.
Melville, NY 11747

Report By:

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472

February 25, 2008



Identifying and allocating sources of pollutants in complex environments.

Final Laboratory Report

META Environmental, Inc.
49 Clarendon Street
Watertown, MA 02472
Phone: 617-923-4662
Fax: 617-923-4610
E-Mail meta@metaenv.com

Certification

This certifies that this package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed herein. The results included in this data report relate only to the samples as received and analyzed by the laboratory.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager and Quality Assurance Officer, as verified by the following signatures.



James A. Roush
Environmental Scientist, Laboratory Manager

February 25, 2008

Date



David M. Mauro
Senior Scientist, Quality Assurance Officer

February 25, 2008

Date

Sample Delivery Group Narrative

Project: KEY - URS

Client: H2M Group
575 Broadhollow Rd.
Melville, NY 11747

Report Contact: Jennifer Aracri

Dates of Receipt: February 9, 2008

Sample Summary: The samples received for this project are summarized in the attached sample login forms.

META Project Number: H09010

SDG No.: HC080209

Total Pages in Report: 83

Chain of Custody

The samples were received in good condition. The internal temperature of the shipping containers was within the recommended 2-6°C range and is as follows:

Samples received: 02/09/08 2.5° Ice present

Internal chain of custody procedures were followed after sample receipt. Samples were stored in a locked refrigerator. A sample custody logbook contains the record of sample removal from the secure sample storage area to the sample preparation laboratory. The custody record for the sample extracts is present on the sample extraction logbook page. The disposal of samples and extracts will be authorized one month after the release of this data report. Sample disposal will be documented.

Methods

The soil samples were prepared by solvent extraction (EPA 3570) using dichloromethane (DCM). The extracts were spiked with internal standard and analyzed by GC/FID (EPA 8100M) for fingerprinting and by GC/MS/SIM (EPA 8270M) for mono- and polycyclic aromatic hydrocarbons (MAHs and PAHs), alkyl PAH homologues and other selected compounds.

Results

Sample results are presented in several appendices which follow this narrative.

Appendix B: GC/FID Fingerprints

Appendix C: MAH/PAH Concentrations

Appendix D: Extended MAH/PAH Profiles - Histograms

Appendix E: Extracted Ion Current Profiles (EICPs)

Quality Control

Analyte Flags

The detection limits were determined as the sample equivalent of the lowest linear initial calibration standard. Analytes measured between 50% and 100% of the lowest standard were reported as "estimated" and flagged with the letter "J." Undetected analytes were reported as null and flagged with the letter, "U." Analytes marked with a "B" were detected in the associated blank and should be reviewed for a possible positive bias. No deviations were thought significant enough to compromise the integrity of the reported values.

Holding Times

The soil samples were extracted within holding times. The samples and extracts were stored at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ prior to extraction and analysis. The extracts were analyzed within 40 days of sample preparation.

Surrogate Spikes

Extraction surrogates were added to all samples prior to extraction. All surrogate compounds were recovered within the 50%-120% acceptable criterion.

Blanks

Various MAHs and PAHs were detected below or just above the reporting limit (RL) in soil blank QC080212-SB. As these compounds were generally detected in the field samples at much higher relative concentrations (greater than 5x the blank levels) positive bias does not appear to be significant.

Blank Spikes

A blank spike sample was extracted with each soil batch. All spiked compounds were recovered within criteria.

Duplicates

Sample 0802315-001D was extracted and analyzed in duplicate. Relative percent differences are reported with the sample results in Appendix C.

Internal Standards

Internal standards were recovered within acceptable QC limits (50%-200%) relative to the continuing calibration standards.

Interpretation

Introduction

Three samples of soil were received by META from the Key-URS site on February 9th 2008. The samples were analyzed for hydrocarbon fingerprints and an expanded list of MAHs and PAHs.

This report summarizes the findings and compares the samples.

Description of Chemical Fingerprinting Methodology

PAHs commonly form the basis for source attribution and allocation at sites involving petrogenic or pyrogenic materials. Studies have shown that the pattern of PAHs clearly distinguishes petrogenic from pyrogenic substances and can be used to identify and classify petrogenic or pyrogenic substances of different origins. For example, ASTM Method D 5739-95 is the method used extensively by the U.S. Coast Guard to determine the source of oil spilled in public waterways. That method relies on the determination of selected PAHs in oil, soil, or water samples by gas chromatography with mass spectrometric detection (GC/MS) and the use of the qualitative patterns and quantitative ratios of those PAHs to determine which oil samples have a common origin. Similarly, work by META Environmental, Inc. (META) has shown that the same methodology can be used to identify the sources of PAHs at former MGP sites. Further, META has modified the typical sample preparation and analysis procedures for hydrocarbon fingerprinting to include MAHs as well as PAHs.

An approach based on MAH/PAH profiling has been used to investigate the sources of hydrocarbons at the KEY-URS site, which is the topic of this report. Therefore, a more detailed discussion of the forensic methods used is presented in the next subsection as background.

GC/FID Fingerprinting

All soil samples in this study were analyzed by gas chromatography with flame ionization detection (GC/FID). With GC/FID, organic compounds in a sample are vaporized and then separated in a long, narrow fused silica capillary column. Separation follows boiling point approximately with the most volatile compounds exiting the column first followed by increasingly less volatile compounds. Therefore, certain refined petroleum products, generated

by the distillation of crude oil and which differ in their boiling point ranges, are distinguishable by where they appear on a chromatogram. Once they exit the column, the compounds are detected using the flame ionization technique. As the compounds exit and are detected, their responses are recorded and shown as peaks on a continuous plot. The height and area of a peak are proportional to the concentration of that compound in the sample. When done in a controlled and reproducible manner, the GC/FID method produces a “fingerprint” of a sample where the presence and relative amounts of the compounds are immediately visible as peaks of varying height appearing at different times. GC/FID fingerprints for the samples analyzed are provided in Appendix B.

GC/FID methods are commonly used for fingerprinting in a number of forensic fields. The patterns of individual peaks and the sizes and shapes of any baseline features are examined qualitatively for similarities and differences among samples.

The instrumental conditions for the GC/FID analyses in this study were adjusted so that compounds with boiling points between about hexane (C6) and n-tetracontane (C40) were detectable in one analytical run. This range includes most of the VOCs and all of the SVOCs commonly measured in environmental investigations. In particular, it includes benzene, toluene, ethylbenzene, xylenes, and the 16 priority pollutant PAHs that comprise a major portion of MGP tars and other pyrogenic substances. It also includes the range of compounds that are measurable in pyrogenic substances by gas chromatographic methods. Finally, META’s GC/FID conditions detect most of the constituents of gasoline, as well as all of the constituents of higher boiling petroleum products (e.g., kerosene, diesel, refined oils).

Source identification using GC/FID is mostly qualitatively applied. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes a judgment regarding the nature and source of the contamination in the sample. The chemist might go “peak-by-peak” looking for similarities and differences, comparing peak ratios, and looking for indicator compounds.

For some samples, GC/FID fingerprinting is accurate and sufficient. However, the reliability of GC/FID fingerprinting decreases when multiple sources are present in a sample and when the sample composition becomes extensively altered by environmental weathering processes. Other testing methods, such as GC/MS, are complementary for source identification under these conditions.

Extended PAH Profiles (EPPs) by GC/MS

Samples from the KEY-URS site also were analyzed by GC/MS for an expanded list of MAHs and PAHs (EPPs). Separation was accomplished with gas chromatography using a method similar to the GC/FID method discussed previously. However, in GC/MS, once compounds exit the column, they are detected using a mass spectrometer. In the mass spectrometer, the molecules of each compound are ionized at high temperature and vacuum. The ionic fragments are unstable and fragment into smaller ions. The ions are then counted and the mass spectrum recorded. Thus, the mass spectrum for a compound is the pattern of ionic fragments that forms when that compound is ionized. Mass spectra vary widely and are characteristic of their source

compound. For example, the mass spectrum of hexane is very different from the mass spectrum of benzene even though both compounds contain six carbon atoms plus hydrogen atoms.

In GC/MS, one obtains both a chromatogram of peaks and additional compound-specific information in the mass spectrum. When executed in a controlled and reproducible manner, the GC/MS method produces multiple “fingerprints” of a sample when specific fragment ions are isolated.

GC/MS is utilized in two general ways in environmental forensic chemistry. First, samples are analyzed under the conditions required by various standard methods, particularly EPA Methods 8260 and 8270 (U.S. EPA SW-846). The concentrations of certain target compounds are determined and the mass spectrum of each peak in the chromatogram is generated and stored. These mass spectra can be used to identify non-target compounds or to generate extracted ion current profiles (EICPs). Second, various specialty methods are utilized where the GC/MS operating conditions are setup to measure only certain groups of compounds. For example, the method described in 40 CFR Subchapter J Part 300 Subpart L Appendix C for PAHs, alkylated PAHs, and biomarkers is used extensively in oil spill and UST release analyses. This method is similar to ASTM Method D 5739-95, “Standard Practice for Oil Spill Source Identification by Gas Chromatography and Positive Ion Electron Impact Low Resolution Mass Spectrometry.”

GC/MS data are used both qualitatively and quantitatively. An experienced chemist examines the chromatograms, compares them to those of reference materials, and makes judgments regarding the nature and source of the contamination in the sample. The chemist might go “peak-by-peak” looking for similarities and differences, comparing peak ratios, and looking for indicator compounds. This process is described in detail in ASTM Method D 5739-95.

GC/MS data are more commonly used quantitatively by calculating the concentrations of selected compounds, by comparing peak area ratios, or by applying chemometric or pattern recognition techniques to the raw or adjusted data. These data analysis methods are used extensively with extended PAH profiles (MAHs, PAHs and alkylated PAHs) and with biomarker compound data. Various degrees of statistical confidence can be achieved by examining chemical concentrations and compound ratios or patterns from multiple samples and replicate samples. This characteristic of GC/MS quantitative data is particularly valuable when assessing the degree of similarity or difference between samples, particularly when multiple sources of hydrocarbons are present in the sample or when environmental weathering has altered the original distributions of hydrocarbons.

Finally, the mass spectra of selected compounds also can be examined to determine whether any diagnostic or indicator chemicals are present in the sample. For example, the PAH retene (1-methyl-7-isopropylphenanthrene) is present in significant concentrations in coal, but at much lower concentrations in coal tar or petroleum products. Thus, the ratio of retene to chrysene can be used to determine whether coal fines are present in a soil sample and to explain some of the hydrocarbon patterns observed at sites where coal was used extensively. Further, unknown compounds can be identified and their presence used as clues to the source(s) of the chemicals.

The GC/MS data in this study were reported and utilized both qualitatively and quantitatively.

First, the concentrations of MAHs, PAHs and alkylated PAHs were calculated and included in Appendix C. These concentrations were utilized to estimate contaminant levels in samples, to generate bar graphs (Appendix D) and compare compound ratios. The ratios were used to generate plots for identifying samples with similar compositions.

The GC/MS data also were used qualitatively by generating extracted ion current profiles (EICs) for selected compounds and compound groups of forensic value (Appendix E). For example, the EICs for selected “biomarker” compounds including normal alkanes, isoprenoid hydrocarbons, alkylcyclohexanes, hopanes and steranes are shown on the first page of the EIC report for each sample. These compound groups are commonly used in hydrocarbon source identifications and weathering evaluations. For example, the estimated boiling point range of a refined petroleum product, as indicated by the location of the alkanes and unresolved complex mixture (UCM) on the chromatogram, can be used to determine whether the material is kerosene, diesel, No. 6 fuel oil, or some other product. Similarly, hopanes and steranes are known to be present in crude oils and some refined petroleum products, but not found in coke oven tars and rarely found in MGP tars. Therefore, the presence of hopanes and steranes is monitored to confirm and refine the petrogenic versus pyrogenic assessment conducted with the PAH profiles.

Sample-Specific Observations

0802315-001D

Sample 0802315-001D contained a mixture of pyrogenic and petrogenic materials (see definitions). The pyrogenic material was indicated by the wide range distribution of unsubstituted mono- and polycyclic aromatic hydrocarbons (MAHs & PAHs) with the 2-ring PAHs dominant. The ratio of fluoranthene to pyrene (F/P – Table 1) as well as the double ratio plot of dibenzofuran/fluorene (D/F) to Fl/Py in Figure 1 shows that the PAH pattern in this sample is very similar to tars in METAs reference library that were formed from manufactured gas plants (MGPs) utilizing carbureted water gas (CWG) processes.

The concentrations of naphthalene, methylnaphthalenes, and other low molecular weight PAHs (LPAH) are at the same relative levels to the 3- and 4-ring PAHs and higher than the 5-, and 6-ring PAHs (HPAHs). This suggests that the sample has been subjected to some degree of environmentally induced degradation or weathering.

The petrogenic material was indicated by an unresolved complex mixture (UCM) that elutes from about 10 minutes (C9 - nonane) to about 45 minutes (C34 - tetratriacontane) with a maximum at about 27 minutes (C18 - octadecane) in the GC/FID chromatogram and by the GC/MS alkane and alkylcyclohexane extracted ion current profiles (EICPs) in Appendix E. The presence of isoprenoid compounds including pristane and phytane as well as sesquiterpane petroleum biomarkers in the GCMS EICPs indicate that this material was produced from petroleum.

The lack of normal alkanes indicates that the petrogenic material has experienced substantial weathering. Examples of common petroleum products with these features include No. 4 fuel oils and gas oil.

Mixtures of pyrogenic PAHs and heavy distillate fuels, as observed in sample 0802315-001D are common at some former MGP sites and may be tar/oil emulsion or sludge residues.

0802315-002D

Sample 0802315-002D also contained a mixture of pyrogenic and petrogenic materials. The pyrogenic material was again indicated by the wide range distribution of unsubstituted mono- and polycyclic aromatic hydrocarbons (MAHs & PAHs). The concentrations of low molecular weight PAHs (LPAH) and 3- to 4-ring PAHs were at similar levels and higher than the 5-, and 6-ring PAHs (HPAHs) suggesting that the sample has been subjected to some degree of weathering.

The ratio of Fl/Py as well as the double ratio plot in Figure 1 shows that the PAH pattern in this sample is also very similar to tars in METAs reference library that were formed from MGPs utilizing CWG processes.

The petrogenic material was indicated by a UCM that eluted from about 12 minutes (C10 – decane) to about 35 minutes (C23 – tricosane) with a maximum at about 24 minutes (C17 – heptadecane) visible in the GC/FID chromatogram as well as the GC/MS EICPs. The presence of isoprenoids, alkyl-cyclohexane hydrocarbons and sesquiterpane petroleum biomarkers in the GCMS EICPs supports the petrogenic identification of this material. Some normal alkanes are present though the reduced presence indicates some degree of weathering has occurred. Examples of common petroleum products with these features include gas oil and some No. 2 fuel oils.

0802315-003D

Sample 0802315-003D contained pyrogenic and petrogenic materials similar to those seen in sample 0802315-001D, however, the pyrogenic PAHs were present at a much lower concentration relative to the petrogenic UCM.

Discussion

All three soil samples showed both pyrogenic and petrogenic characteristics with some similarities and some differences. The pyrogenic material in all three samples appears to be CWG process-derived as the samples correlate well with CWG tars in META's reference library as seen in Figure 1. The mean Fl/Py ratio of the three samples was 0.6266 with a percent relative standard deviation of 1.68%.

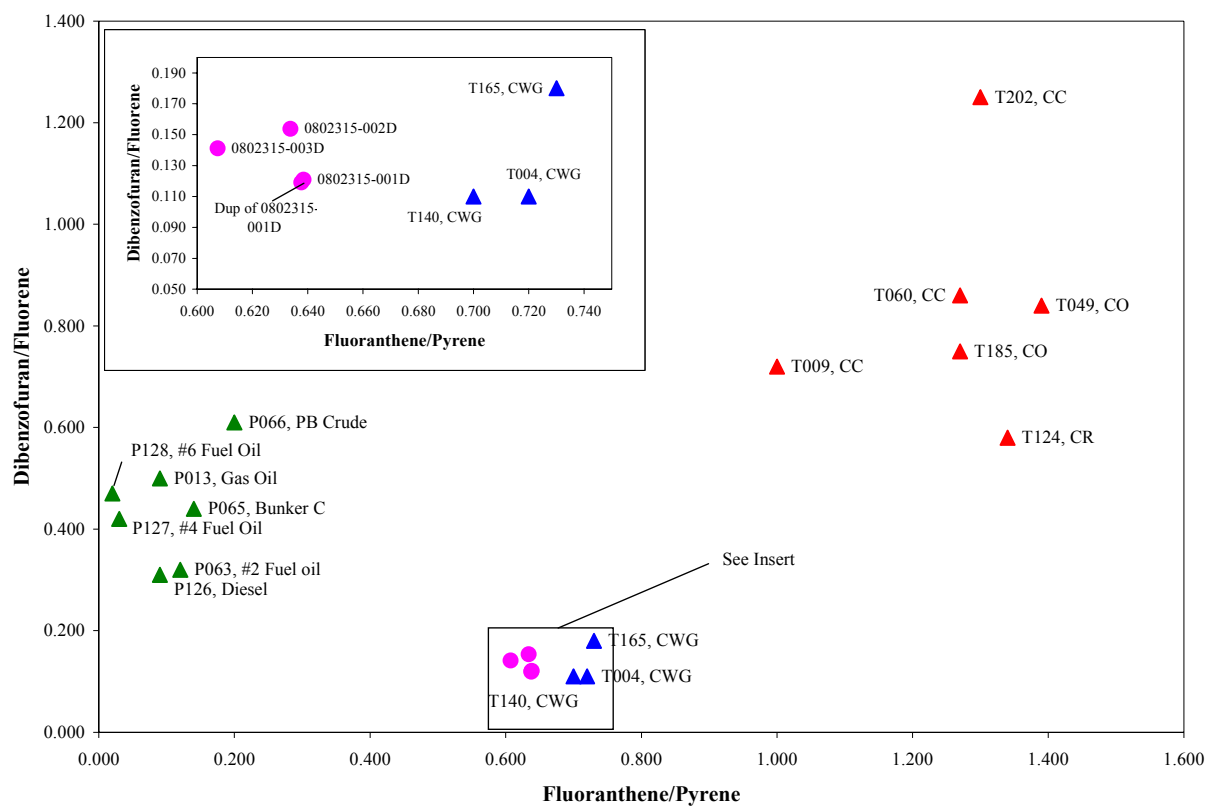
There are small differences in the petrogenic material found in the three samples. Sample 0802315-002D shows differences in the range of UCM present the GC/FID and in the pristine to phytane ratios (table 1) found in samples 0802315-001D and -003D. The double ratios of C2 and C3 alkyl dibenzothiophenes and alkylphenanthrenes/anthracenes (Figure 2) show these differences between samples 0802315-003D and 0802315-001D and -002D. It is not uncommon to find different types of petroleum products being used at a site the used carbureted water gas processes for gas production.

Table 1. Selected Source and Weathering Ratios

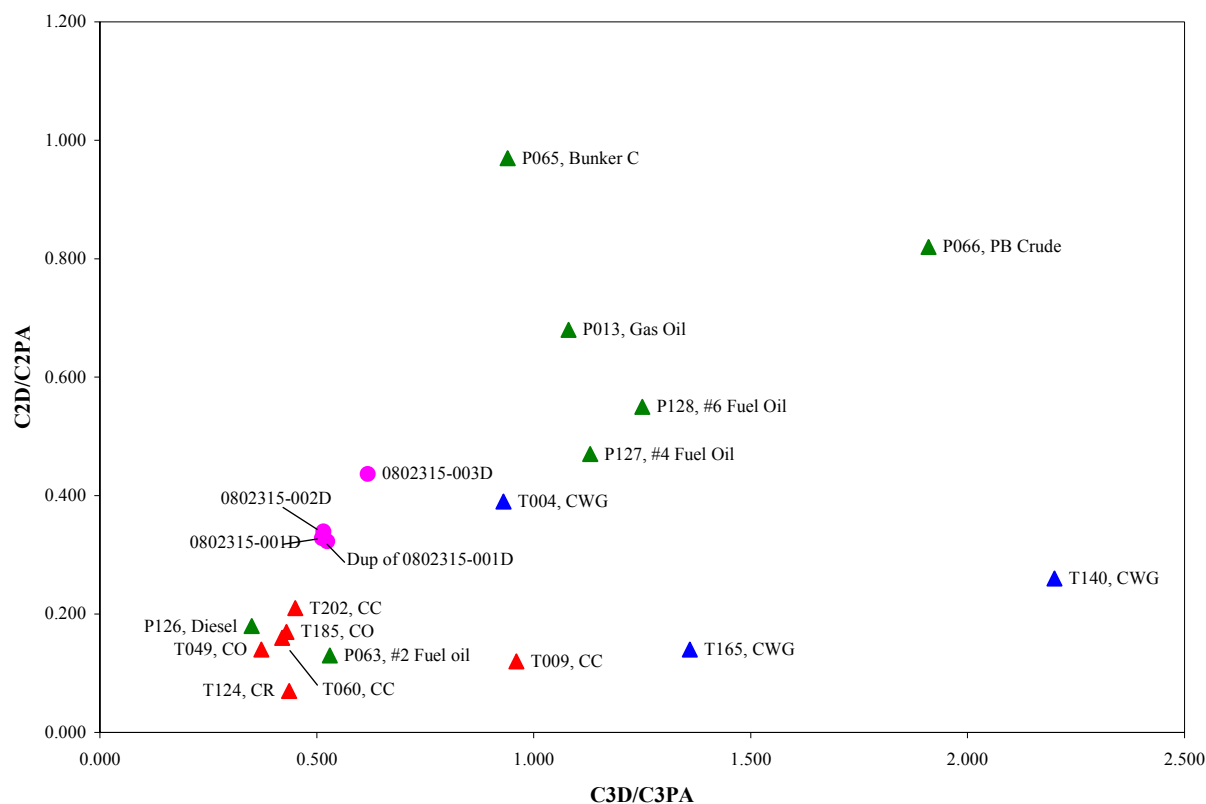
	Fl/Py	D/F	C17/Pris	C18/Phy	Pris/Phy	C3D/C3PA	C2D/C2PA	BF/MP
0802315-001D	0.6385	0.1209	NC	NC	1.4977	0.5119	0.3283	0.3542
Dup of 0802315-001D	0.6377	0.1191	NC	NC	1.4837	0.5238	0.3230	0.3489
0802315-002D	0.6338	0.1537	0.2041	0.2561	1.9471	0.5152	0.3394	0.3193
0802315-003D	0.6074	0.1412	NC	NC	1.4246	0.6172	0.4366	0.3118

Ratios:

Fl/Py	fluoranthene/pyrene
D/F	dibenzofuran/fluorene
C17/Pris	heptadecane/pristane
C18/Phy	octadecane/phytane
Pris/Phy	pristane/phytane
C3D/C3PA	trialkyldibenzothiophenes/trialkylphenanthrenes/anthracenes
C2D/C2PA	dialkyldibenzothiophenes/dialkylphenanthrenes/anthracenes
BF/MP	benzofluorenes/methylpyrenes
NC	Not calculable

Figure 1. Selected Diagnostic Ratios – Fl/Py v. D/F

PXXX Petroleum Sample from in house source library
 TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CR Creosote
 CWG Carbureted Water Gas Tar
 ● Field Samples

Figure 2. Selected Diagnostic Ratios – C2D/C2PA v. C3D/C3PA

PXXX Petroleum Sample from in house source library
 TXXX Tar Sample from META's in house source library
 CC Coal Carbonization Tar
 CO Coke Oven Tar
 CR Creosote
 CWG Carbureted Water Gas Tar
 ● Field Samples

Definitions

Pyrogenic substances are complex mixtures of primarily hydrocarbons produced from organic matter subjected to high temperatures but with insufficient oxygen for complete combustion. Pyrogenic materials are produced by fires, internal combustion engines, and furnaces. They also are formed when coke or gas are produced from coal or oil. Coal-tar based products, such as roofing, pavement sealers, waterproofing, pesticides, and some shampoos contain pyrogenic materials.

Petrogenic substances include crude oil and crude oil derivatives such as gasoline, heating oil, and asphalt.

Pitch is the semi-solid or solid material consisting of high molecular weight hydrocarbons that remain following coal tar distillation.

References

McNicoll, D., Tousignant, L.P., Augustine, P. "Facts and Fallacies: Petroleum Degradation in a Subsurface Environment." Contaminated Soil Sediment and Water, 17-21, June, July 2001

"Chemical Fingerprinting of Hydrocarbons," in: Introduction to Environmental Forensics. B.L. Murphy and R.D. Morrison editors, Academic Press, San Diego, CA 2002.

Mauro, D.M., "Chemical Source Attribution at former MGP Sites," EPRI Report 1000728, December 2000.

Appendix A

Chain of Custody

H2M LABS, INC.

575 Broad Hollow Road
 Melville, NY 11747-5076
 (631) 694-3040

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Subcontractor:

META Environmental Inc.
 49 Clarendon Street

TEL: (617) 923-4662
 FAX:

H2M Client : KEY-URS

Watertown, Massachusetts 02472

Acct #:

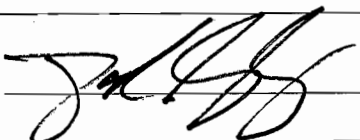
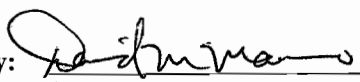
08-Feb-08

Sample ID	Matrix	Collection Date	Bottle Type	Requested Tests				
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0802315-002D	Soil	2/8/2008 10:00:00 AM	81-OZJAR					HCO80209-02
0802315-003D	Soil	2/7/2008 2:00:00 PM	81-OZJAR					HCO80209-03

DAC
T

Comments:

Please analyze for GC/MS FINGERPRINT (GC/MS and GC/FID) Quant/Product ID/Catagorize/Source. If you have any questions, please contact Jenninifer Aracri (631)694-3040 x1211. Thank You.

		Date/Time			Date/Time
Relinquished by:		2/8/08 17:45	Received by:		2/9/08 11:50 A
Relinquished by:			Received by:		

2.5°C

META Environmental, Inc.

Sample Receipt Log

Lab ID	Field ID	Matrix	Prep Method	Cleanup Method	Analysis Method	Date Sampled	Date Received	Project #	Container	Comments	Client Name	Project Name
HC080209-01	0802315-001D	Soil	2508		4007/4008	2/7/2008	2/9/2008	H09010-60	1 x 8 oz jar		H2M	KEY-URS
HC080209-02	0802315-002D	Soil	2508		4007/4008	2/8/2008	2/9/2008	H09010-60	1 x 8 oz jar		H2M	KEY-URS
HC080209-03	0802315-003D	Soil	2508		4007/4008	2/7/2008	2/9/2008	H09010-60	1 x 8 oz jar		H2M	KEY-URS

Logged By: ll
Date: 2/11/2008

Reviewed By: ju
Date: 2/11/08

META Environmental, Inc.
Sample Receipt Checklist

Receipt date: 2/9/08
 Login date: 2/9/08
 Login personnel: DM

Client Information:

Company Name: H2M Group
 Project Manager: David Collins
 Project Name: Key-URS

Shipping Information:

How were samples received? UPS FedEx DHL Other:
 Number of coolers: 1
 Internal temperature of coolers: 2.5°C
 Was ice present? Yes / No

Note: if cooler is outside the 2-6° range, META's project manager should be notified.

Documentation:

Was a Chain of Custody present? Yes / No
 Was it signed? Yes / No
 Was all project information present on the COC? Yes / No
 Was a bill of lading or shipping label retained? Yes / No

Sample Information:

Number of sample containers: 3
 Does this match the COC? Yes / No
 Were all sample containers Intact? Yes / No
 If no, list samples and problems:

Note: if samples are damaged, META's project manager should be notified.

For aqueous 40ml Voas; was headspace present? Yes / No / NA

Comments:

Custodian: DM

Project Manager: James A. Paul

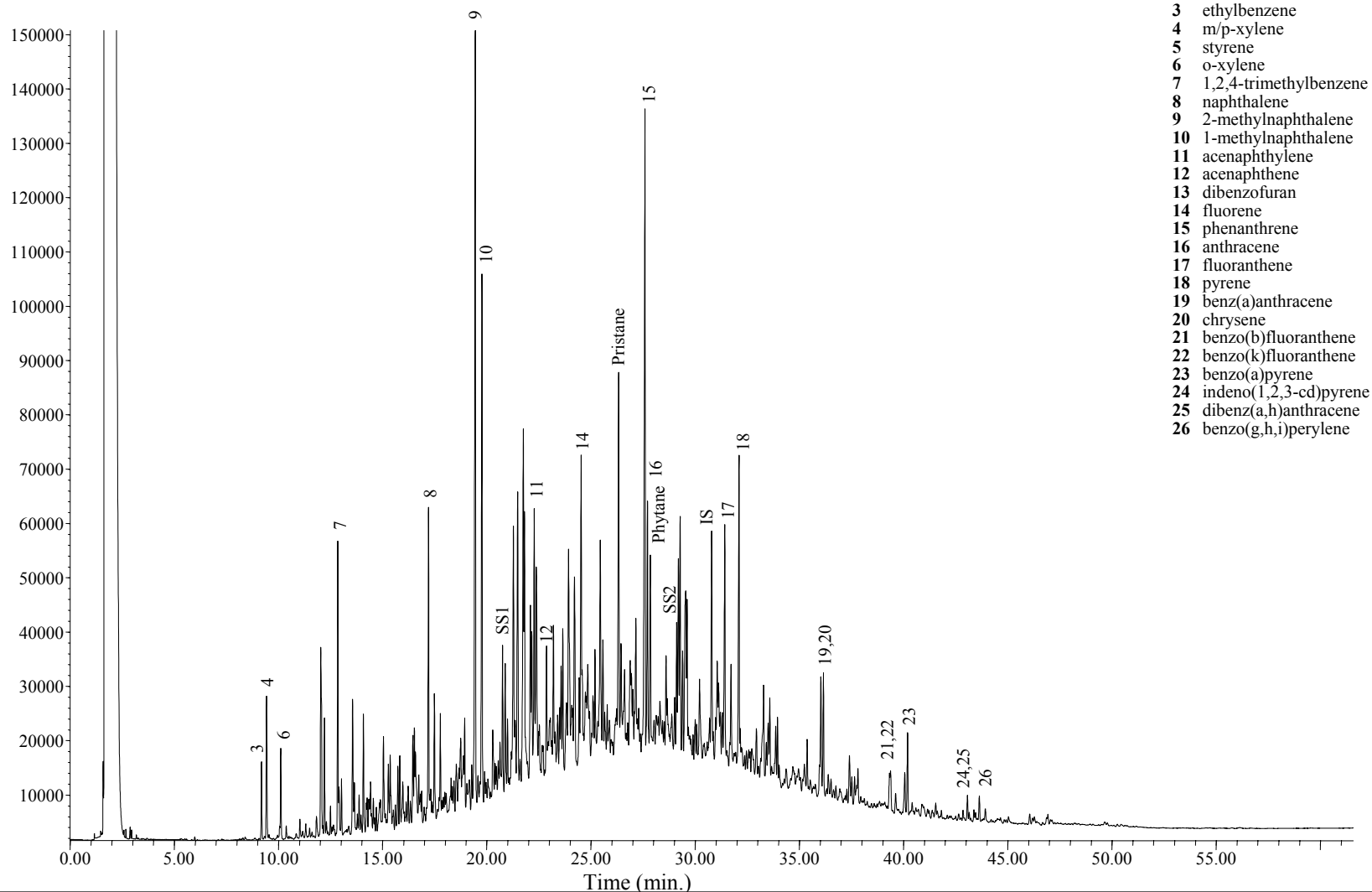
Appendix B

GC/FID Fingerprints

GC/FID Fingerprint

App Page 684 of 749

C021308.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/13/2008

IS - 5- α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

Field ID: 0802315-001D

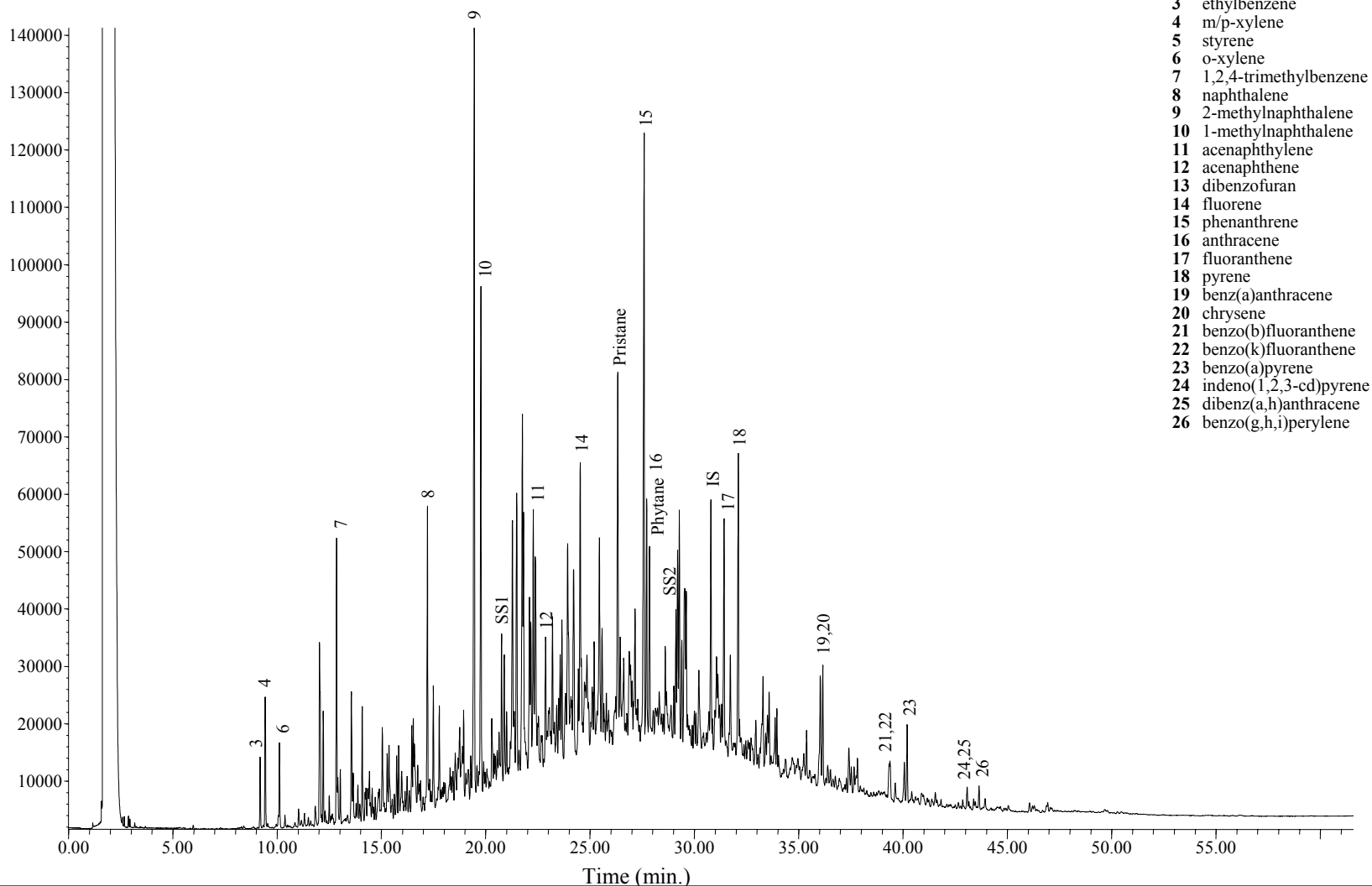
Laboratory ID: HC080209-01

Method: EPA 8100M

GC/FID Fingerprint

App Page 685 of 749

C021309.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/13/2008

IS - 5- α -androstane

SS1 - 2-fluorobiphenyl

SS2 - o-terphenyl

Field ID: 0802315-001D

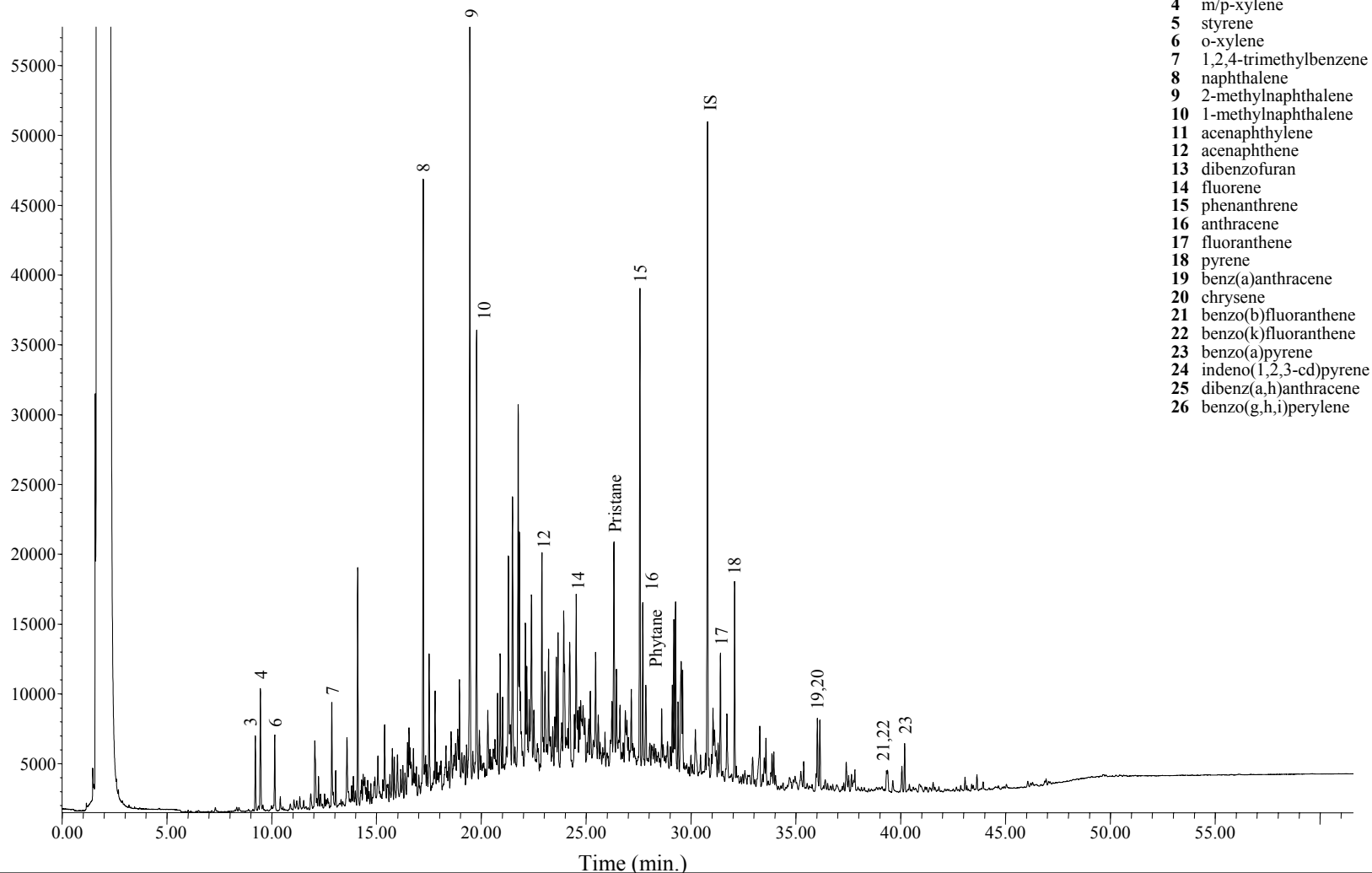
Laboratory ID: HC080209-01DUP

Method: EPA 8100M

GC/FID Fingerprint

App Page 686 of 749

C021405.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/14/2008

IS - 5-a-androstane
SS1 - 2-fluorobiphenyl
SS2 - o-terphenyl

Field ID: 0802315-002D

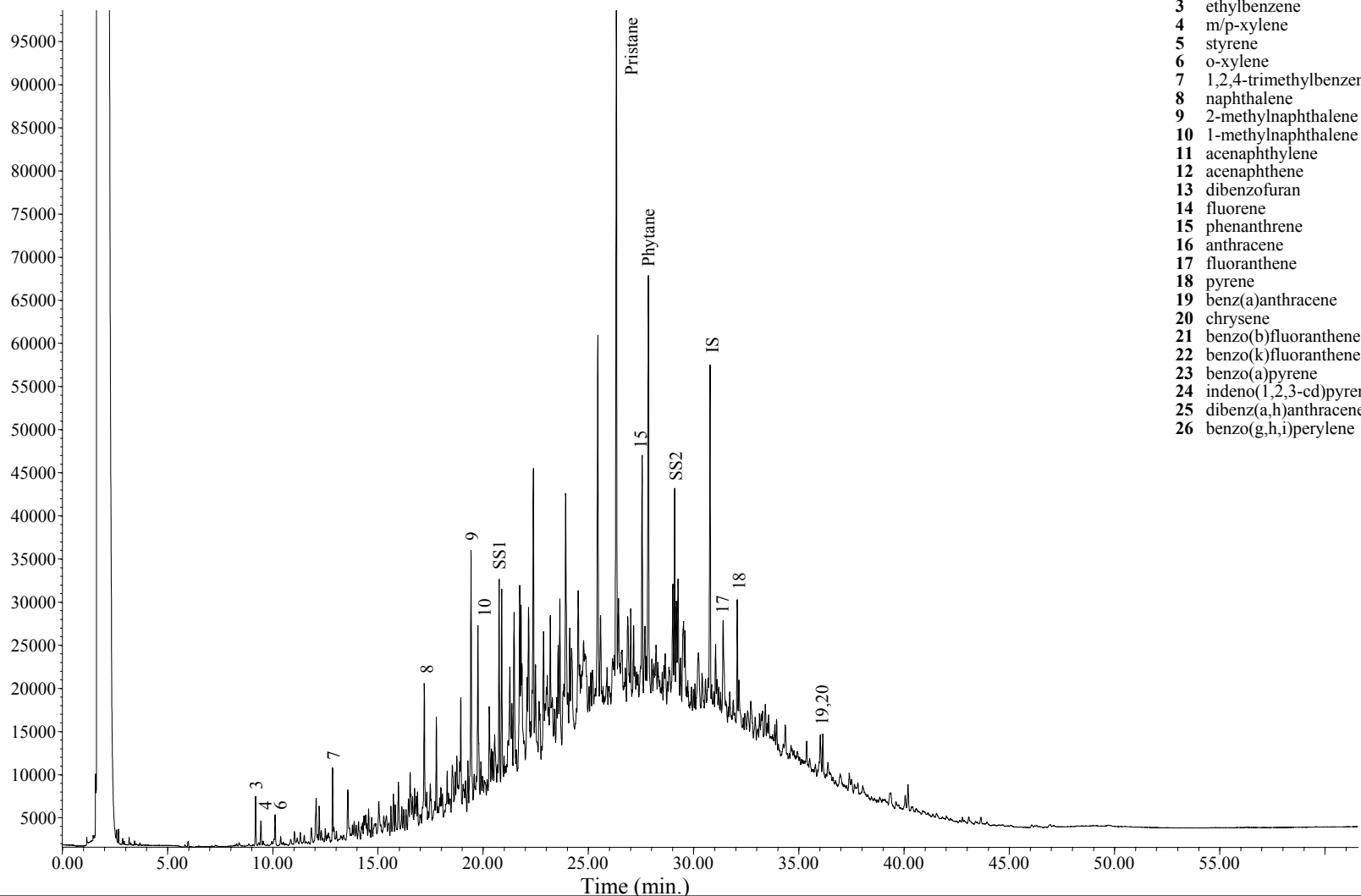
Laboratory ID: HC080209-02-D

Method: EPA 8100M

GC/FID Fingerprint

App Page 687 of 749

C021311.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/14/2008

IS - 5-a-androstane
SS1 - 2-fluorobiphenyl
SS2 - o-terphenyl

Field ID: 0802315-003D

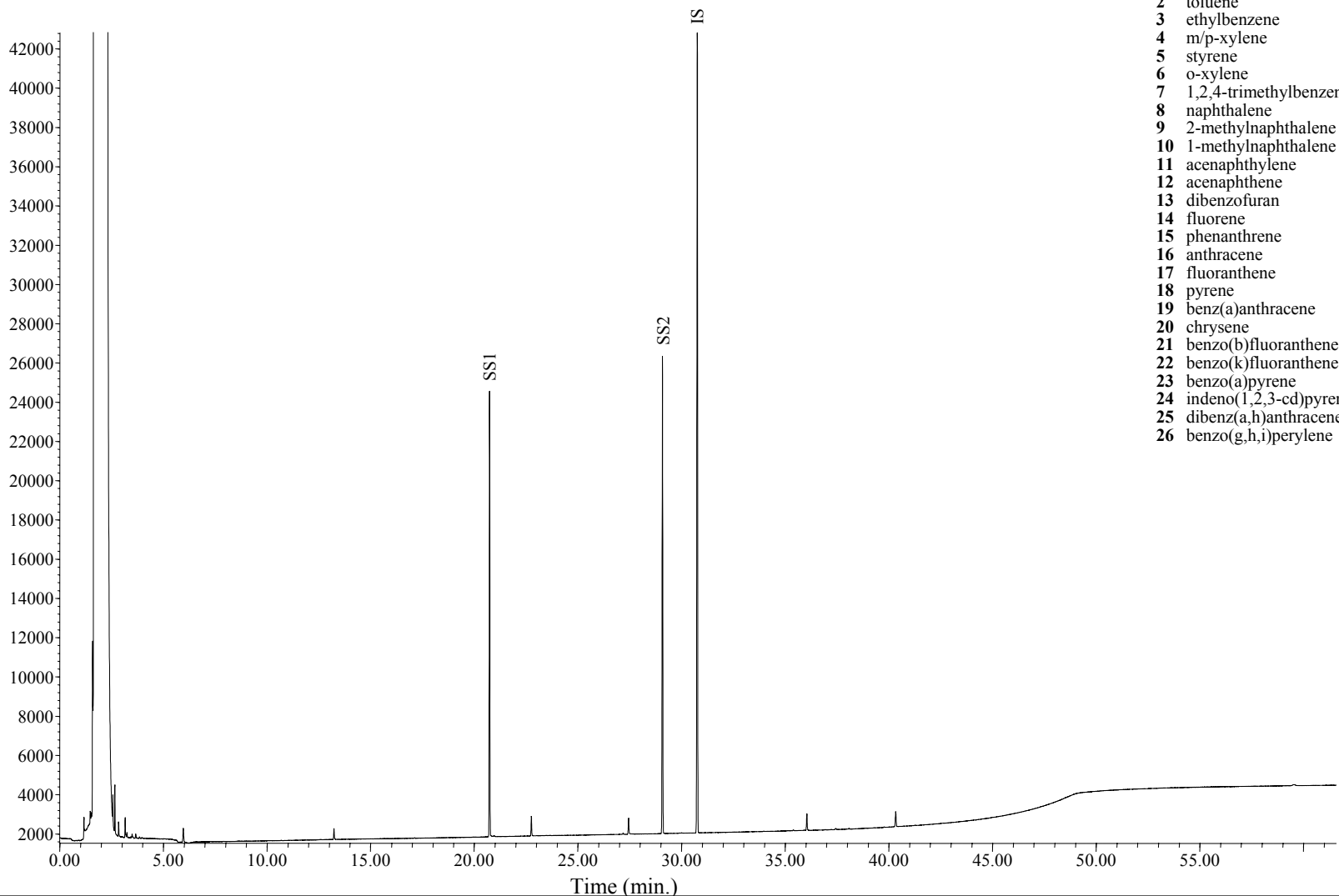
Laboratory ID: HC080209-03

Method: EPA 8100M

GC/FID Fingerprint

App Page 688 of 749

C021304.D\FID2B



Extraction Date: 02/12/2008

Analysis Date: 02/13/2008

IS - 5- α -androstane
SS1 - 2-fluorobiphenyl
SS2 - o-terphenyl

Field ID: Soil Blank

Laboratory ID: QC080212-SB

Method: EPA 8100M

Appendix C

MAH/PAH Concentrations

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
Lab ID	HC080209-01-D	Analysis Method:	EPA 8270M
File ID:	E021911.D	Matrix:	Soil
Date Sampled:	2/7/2008	Preservation:	None
Date Received:	2/9/2008	Decanted:	None
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
Batch QC:	QC080212-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.113 B	0.026	0.013	
Toluene	0.115 B	0.052	0.026	
Ethylbenzene	6.24	0.026	0.013	
m/p-Xylenes	13.2	0.026	0.013	
Styrene	9.23 B	0.052	0.026	
o-Xylene	7.12	0.026	0.013	
Isopropylbenzene	1.74	0.026	0.013	
n-Propylbenzene	1.15	0.026	0.013	
1,3,5-Trimethylbenzene	9.54	0.026	0.013	
1,2,4-Trimethylbenzene	21.9	0.026	0.013	
t-Butylbenzene	U	0.026	0.013	
sec-Butylbenzene	0.249	0.026	0.013	
p-Isopropyltoluene	1.84	0.026	0.013	
n-Butylbenzene	1.68	0.026	0.013	
C1 - Benzene	0.068 B	0.052	0.026	
C2 - Benzene	11.7	0.026	0.013	
C3 - Benzene	27.0	0.026	0.013	
C4 - Benzene	13.2	0.026	0.013	
C5 - Benzene	4.81	0.026	0.013	
trans-Decalin	1.54	0.026	0.013	
cis-Decalin	0.127	0.026	0.013	
Naphthalene	23.7	0.026	0.013	
2-Methylnaphthalene	65.5 B	0.026	0.013	
1-Methylnaphthalene	41.6	0.026	0.013	
C1 - Naphthalene	66.5 B	0.026	0.013	
C2 - Naphthalene	65.0	0.026	0.013	
C3- Naphthalene	32.0	0.026	0.013	
C4- Naphthalene	12.9	0.026	0.013	
Acenaphthylene	28.9	0.026	0.013	
Acenaphthene	4.85	0.026	0.013	
Dibenzofuran	3.12	0.026	0.013	
Fluorene	25.8	0.026	0.013	
C1 - Fluorene	19.0	0.026	0.013	
C2 - Fluorene	13.7	0.026	0.013	
C3 - Fluorene	5.82	0.026	0.013	
Phenanthrene	68.2 B	0.026	0.013	
Anthracene	27.1	0.026	0.013	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-01-D		
File ID:	E021911.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	2/7/2008	Decanted:	None
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	62.8	0.026	0.013	
C2 - Phenanthrene/Anthracene	28.3	0.026	0.013	
C3 - Phenanthrene/Anthracene	8.81	0.026	0.013	
C4 - Phenanthrene/Anthracene	2.27	0.026	0.013	
Dibenzothiophene	8.57	0.026	0.013	
C1 - Dibenzothiophene	11.5	0.026	0.013	
C2 - Dibenzothiophene	9.29	0.026	0.013	
C3 - Dibenzothiophene	4.51	0.026	0.013	
C4 - Dibenzothiophene	1.39	0.026	0.013	
Benzo(b)naphtho(2,1-d)thiophene	2.33	0.026	0.013	
Fluoranthene	21.9 B	0.026	0.013	
Pyrene	34.3 B	0.026	0.013	
C1 - Fluoranthene/Pyrene	37.2	0.026	0.013	
C2 - Fluoranthene/Pyrene	11.9	0.026	0.013	
C3 - Fluoranthene/Pyrene	3.48	0.026	0.013	
Benz[a]anthracene	13.0 B	0.026	0.013	
Chrysene*	12.6 B	0.026	0.013	
C1 - Benz(a)anthracene/Chrysene	10.4	0.026	0.013	
C2 - Benz(a)anthracene/Chrysene	3.87	0.026	0.013	
C3 - Benz(a)anthracene/Chrysene	1.08	0.026	0.013	
C4 - Benz(a)anthracene/Chrysene	0.394	0.026	0.013	
Benzo[b]fluoranthene	3.68	0.026	0.013	
Benzo[j/k]fluoranthene	5.03	0.026	0.013	
Benzo(e)pyrene	4.38	0.026	0.013	
Benzo[a]pyrene	9.04 B	0.026	0.013	
Perylene	1.18	0.026	0.013	
Indeno[1,2,3-cd]pyrene	2.88	0.026	0.013	
Dibenz[a,h]anthracene	0.853	0.026	0.013	
Benzo[g,h,i]perylene	2.69	0.026	0.013	
Coronene	0.551	0.026	0.013	
Retene	U	0.026	0.013	
Benzo(b/c)fluorenes	5.43	0.026	0.013	
2-Methylpyrene	5.31	0.026	0.013	
4-Methylpyrene	4.47	0.026	0.013	
1-Methylpyrene	5.55	0.026	0.013	
Heptadecane	U	0.052	0.026	
Pristane	33.1	0.026	0.013	
Octadecane	U	0.052	0.026	
Phytane	22.1	0.026	0.013	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-01-D		
File ID:	E021911.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	2/7/2008		
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	8.72	0.026	0.013	
2,6,10-trimethyltridecane	15.7	0.026	0.013	
Norpristane	18.0	0.026	0.013	
Total PAH (16)	284	0.026	0.013	
Total PAH (42)	714	0.026	0.013	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	72	50 - 120
Phenanthrene-d10	97	50 - 120
Perylene-d12	96	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-02-D		
File ID:	E021913.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	2/8/2008	Decanted:	None
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	87%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.079 B	0.027	0.014	
Toluene	0.128 B	0.055	0.027	
Ethylbenzene	12.8	0.027	0.014	
m/p-Xylenes	23.6	0.027	0.014	
Styrene	2.35 B	0.055	0.027	
o-Xylene	12.6	0.027	0.014	
Isopropylbenzene	1.87	0.027	0.014	
n-Propylbenzene	1.57	0.027	0.014	
1,3,5-Trimethylbenzene	5.26	0.027	0.014	
1,2,4-Trimethylbenzene	16.2	0.027	0.014	
t-Butylbenzene	U	0.027	0.014	
sec-Butylbenzene	1.01	0.027	0.014	
p-Isopropyltoluene	2.16	0.027	0.014	
n-Butylbenzene	2.35	0.027	0.014	
C1 - Benzene	0.080 B	0.055	0.027	
C2 - Benzene	22.1	0.027	0.014	
C3 - Benzene	19.2	0.027	0.014	
C4 - Benzene	17.0	0.027	0.014	
C5 - Benzene	11.6	0.027	0.014	
trans-Decalin	3.66	0.027	0.014	
cis-Decalin	0.308	0.027	0.014	
Naphthalene	76.5	0.027	0.014	
2-Methylnaphthalene	96.5 B	0.027	0.014	
1-Methylnaphthalene	63.0	0.027	0.014	
C1 - Naphthalene	99.0 B	0.027	0.014	
C2 - Naphthalene	106	0.027	0.014	
C3- Naphthalene	57.6	0.027	0.014	
C4- Naphthalene	22.8	0.027	0.014	
Acenaphthylene	19.2	0.027	0.014	
Acenaphthene	27.4	0.027	0.014	
Dibenzofuran	4.12	0.027	0.014	
Fluorene	26.8	0.027	0.014	
C1 - Fluorene	26.2	0.027	0.014	
C2 - Fluorene	19.9	0.027	0.014	
C3 - Fluorene	7.74	0.027	0.014	
Phenanthrene	80.2 B	0.027	0.014	
Anthracene	30.7	0.027	0.014	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
Lab ID	HC080209-02-D	Analysis Method:	EPA 8270M
File ID:	E021913.D	Matrix:	Soil
Date Sampled:	2/8/2008	Preservation:	None
Date Received:	2/9/2008	Decanted:	None
Date Prepared:	2/12/2008	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	87%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	85.0	0.027	0.014	
C2 - Phenanthrene/Anthracene	38.3	0.027	0.014	
C3 - Phenanthrene/Anthracene	10.5	0.027	0.014	
C4 - Phenanthrene/Anthracene	2.2	0.027	0.014	
Dibenzothiophene	11.5	0.027	0.014	
C1 - Dibenzothiophene	17.3	0.027	0.014	
C2 - Dibenzothiophene	13.0	0.027	0.014	
C3 - Dibenzothiophene	5.41	0.027	0.014	
C4 - Dibenzothiophene	1.38	0.027	0.014	
Benzo(b)naphtho(2,1-d)thiophene	3.19	0.027	0.014	
Fluoranthene	24.4 B	0.027	0.014	
Pyrene	38.5 B	0.027	0.014	
C1 - Fluoranthene/Pyrene	50.7	0.027	0.014	
C2 - Fluoranthene/Pyrene	16.1	0.027	0.014	
C3 - Fluoranthene/Pyrene	4.7	0.027	0.014	
Benz[a]anthracene	15.7 B	0.027	0.014	
Chrysene*	15.6 B	0.027	0.014	
C1 - Benz(a)anthracene/Chrysene	13.8	0.027	0.014	
C2 - Benz(a)anthracene/Chrysene	5.08	0.027	0.014	
C3 - Benz(a)anthracene/Chrysene	1.29	0.027	0.014	
C4 - Benz(a)anthracene/Chrysene	0.378	0.027	0.014	
Benzo[b]fluoranthene	4.16	0.027	0.014	
Benzo[j/k]fluoranthene	5.62	0.027	0.014	
Benzo(e)pyrene	5.27	0.027	0.014	
Benzo[a]pyrene	10.8 B	0.027	0.014	
Perylene	1.43	0.027	0.014	
Indeno[1,2,3-cd]pyrene	3.29	0.027	0.014	
Dibenz[a,h]anthracene	1.05	0.027	0.014	
Benzo[g,h,i]perylene	3.19	0.027	0.014	
Coronene	0.667	0.027	0.014	
Retene	U	0.027	0.014	
Benzo(b/c)fluorenes	6.62	0.027	0.014	
2-Methylpyrene	6.75	0.027	0.014	
4-Methylpyrene	6.17	0.027	0.014	
1-Methylpyrene	7.81	0.027	0.014	
Heptadecane	7.51	0.055	0.027	
Pristane	36.8	0.027	0.014	
Octadecane	4.84	0.055	0.027	
Phytane	18.9	0.027	0.014	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-002D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-02-D		
File ID:	E021913.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	2/8/2008		
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.20
Date Cleanup:	NA	Percent Solid:	87%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	14.9	0.027	0.014	
2,6,10-trimethyltridecane	22.8	0.027	0.014	
Norpristane	16.1	0.027	0.014	
Total PAH (16)	383	0.027	0.014	
Total PAH (42)	1,010	0.027	0.014	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	74	50 - 120
Phenanthrene-d10	94	50 - 120
Perylene-d12	98	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: 0802315-003D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-03-D		
File ID:	E021914.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	2/7/2008		
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.111 B	0.025	0.013	
Toluene	0.052 B	0.050	0.025	
Ethylbenzene	2.49	0.025	0.013	
m/p-Xylenes	1.42	0.025	0.013	
Styrene	3.32 B	0.050	0.025	
o-Xylene	1.47	0.025	0.013	
Isopropylbenzene	0.709	0.025	0.013	
n-Propylbenzene	0.408	0.025	0.013	
1,3,5-Trimethylbenzene	1.81	0.025	0.013	
1,2,4-Trimethylbenzene	3.69	0.025	0.013	
t-Butylbenzene	U	0.025	0.013	
sec-Butylbenzene	0.095	0.025	0.013	
p-Isopropyltoluene	0.427	0.025	0.013	
n-Butylbenzene	0.433	0.025	0.013	
C1 - Benzene	0.034 JB	0.050	0.025	
C2 - Benzene	2.18	0.025	0.013	
C3 - Benzene	4.29	0.025	0.013	
C4 - Benzene	3.14	0.025	0.013	
C5 - Benzene	2.19	0.025	0.013	
trans-Decalin	0.917	0.025	0.013	
cis-Decalin	0.069	0.025	0.013	
Naphthalene	6.34	0.025	0.013	
2-Methylnaphthalene	12.3 B	0.025	0.013	
1-Methylnaphthalene	8.31	0.025	0.013	
C1 - Naphthalene	12.8 B	0.025	0.013	
C2 - Naphthalene	18.9	0.025	0.013	
C3- Naphthalene	16.6	0.025	0.013	
C4- Naphthalene	9.94	0.025	0.013	
Acenaphthylene	4.22	0.025	0.013	
Acenaphthene	3.23	0.025	0.013	
Dibenzofuran	0.710	0.025	0.013	
Fluorene	5.03	0.025	0.013	
C1 - Fluorene	5.46	0.025	0.013	
C2 - Fluorene	5.99	0.025	0.013	
C3 - Fluorene	3.84	0.025	0.013	
Phenanthrene	15.7 B	0.025	0.013	
Anthracene	5.17	0.025	0.013	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-003D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-03-D		
File ID:	E021914.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	2/7/2008		
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	15.9	0.025	0.013	
C2 - Phenanthrene/Anthracene	10.1	0.025	0.013	
C3 - Phenanthrene/Anthracene	4.65	0.025	0.013	
C4 - Phenanthrene/Anthracene	1.5	0.025	0.013	
Dibenzothiophene	2.11	0.025	0.013	
C1 - Dibenzothiophene	3.84	0.025	0.013	
C2 - Dibenzothiophene	4.41	0.025	0.013	
C3 - Dibenzothiophene	2.87	0.025	0.013	
C4 - Dibenzothiophene	1.14	0.025	0.013	
Benzo(b)naphtho(2,1-d)thiophene	0.482	0.025	0.013	
Fluoranthene	5.06 B	0.025	0.013	
Pyrene	8.33 B	0.025	0.013	
C1 - Fluoranthene/Pyrene	8.29	0.025	0.013	
C2 - Fluoranthene/Pyrene	3.14	0.025	0.013	
C3 - Fluoranthene/Pyrene	1.31	0.025	0.013	
Benz[a]anthracene	2.88 B	0.025	0.013	
Chrysene*	2.8 B	0.025	0.013	
C1 - Benz(a)anthracene/Chrysene	2.39	0.025	0.013	
C2 - Benz(a)anthracene/Chrysene	1.09	0.025	0.013	
C3 - Benz(a)anthracene/Chrysene	0.392	0.025	0.013	
C4 - Benz(a)anthracene/Chrysene	0.163	0.025	0.013	
Benzo[b]fluoranthene	0.881	0.025	0.013	
Benzo[j/k]fluoranthene	1.15	0.025	0.013	
Benzo(e)pyrene	1.09	0.025	0.013	
Benzo[a]pyrene	2.1 B	0.025	0.013	
Perylene	0.278	0.025	0.013	
Indeno[1,2,3-cd]pyrene	0.725	0.025	0.013	
Dibenz[a,h]anthracene	0.206	0.025	0.013	
Benzo[g,h,i]perylene	0.687	0.025	0.013	
Coronene	0.160	0.025	0.013	
Retene	U	0.025	0.013	
Benzo(b/c)fluorenes	1.11	0.025	0.013	
2-Methylpyrene	1.2	0.025	0.013	
4-Methylpyrene	1.18	0.025	0.013	
1-Methylpyrene	1.18	0.025	0.013	
Heptadecane	U	0.050	0.025	
Pristane	46.3	0.025	0.013	
Octadecane	U	0.050	0.025	
Phytane	32.5	0.025	0.013	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: 0802315-003D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
Lab ID	HC080209-03-D	Analysis Method:	EPA 8270M
File ID:	E021914.D	Matrix:	Soil
Date Sampled:	2/7/2008	Preservation:	None
Date Received:	2/9/2008	Decanted:	None
Date Prepared:	2/12/2008	Sample Size (g):	4.19
Date Cleanup:	NA	Percent Solid:	95%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
Batch QC:	QC080212-SB	Injection Volume (µl):	1.00

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	7.92	0.025	0.013	
2,6,10-trimethyltridecane	13.9	0.025	0.013	
Norpristane	21.6	0.025	0.013	
Total PAH (16)	64.5	0.025	0.013	
Total PAH (42)	203	0.025	0.013	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	73	50 - 120
Phenanthrene-d10	95	50 - 120
Perylene-d12	88	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SB		
File ID:	E021905.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
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MAH & PAH COMPOUNDS:

Benzene	0.003	0.003	0.001	
Toluene	0.008	0.005	0.003	
Ethylbenzene	U	0.003	0.001	
m/p-Xylenes	U	0.003	0.001	
Styrene	0.028	0.005	0.003	
o-Xylene	U	0.003	0.001	
Isopropylbenzene	U	0.003	0.001	
n-Propylbenzene	U	0.003	0.001	
1,3,5-Trimethylbenzene	U	0.003	0.001	
1,2,4-Trimethylbenzene	U	0.003	0.001	
t-Butylbenzene	U	0.003	0.001	
sec-Butylbenzene	U	0.003	0.001	
p-Isopropyltoluene	U	0.003	0.001	
n-Butylbenzene	U	0.003	0.001	
C1 - Benzene	0.005 J	0.005	0.003	
C2 - Benzene	U	0.003	0.001	
C3 - Benzene	U	0.003	0.001	
C4 - Benzene	U	0.003	0.001	
C5 - Benzene	U	0.003	0.001	
trans-Decalin	U	0.003	0.001	
cis-Decalin	U	0.003	0.001	
Naphthalene	U	0.003	0.001	
2-Methylnaphthalene	0.001 J	0.003	0.001	
1-Methylnaphthalene	U	0.003	0.001	
C1 - Naphthalene	0.001 J	0.003	0.001	
C2 - Naphthalene	U	0.003	0.001	
C3- Naphthalene	U	0.003	0.001	
C4- Naphthalene	U	0.003	0.001	
Acenaphthylene	U	0.003	0.001	
Acenaphthene	U	0.003	0.001	
Dibenzofuran	U	0.003	0.001	
Fluorene	U	0.003	0.001	
C1 - Fluorene	U	0.003	0.001	
C2 - Fluorene	U	0.003	0.001	
C3 - Fluorene	U	0.003	0.001	
Phenanthrene	0.001 J	0.003	0.001	
Anthracene	U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SB		
File ID:	E021905.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	U	0.003	0.001	
C2 - Phenanthrene/Anthracene	U	0.003	0.001	
C3 - Phenanthrene/Anthracene	U	0.003	0.001	
C4 - Phenanthrene/Anthracene	U	0.003	0.001	
Dibenzothiophene	U	0.003	0.001	
C1 - Dibenzothiophene	U	0.003	0.001	
C2 - Dibenzothiophene	U	0.003	0.001	
C3 - Dibenzothiophene	U	0.003	0.001	
C4 - Dibenzothiophene	U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene	U	0.003	0.001	
Fluoranthene	0.002 J	0.003	0.001	
Pyrene	0.002 J	0.003	0.001	
C1 - Fluoranthene/Pyrene	U	0.003	0.001	
C2 - Fluoranthene/Pyrene	U	0.003	0.001	
C3 - Fluoranthene/Pyrene	U	0.003	0.001	
Benz[a]anthracene	0.001 J	0.003	0.001	
Chrysene*	0.002 J	0.003	0.001	
C1 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene	U	0.003	0.001	
Benzo[b]fluoranthene	U	0.003	0.001	
Benzo[j/k]fluoranthene	U	0.003	0.001	
Benzo(e)pyrene	U	0.003	0.001	
Benzo[a]pyrene	0.001 J	0.003	0.001	
Perylene	U	0.003	0.001	
Indeno[1,2,3-cd]pyrene	U	0.003	0.001	
Dibenz[a,h]anthracene	U	0.003	0.001	
Benzo[g,h,i]perylene	U	0.003	0.001	
Coronene	U	0.003	0.001	
Retene	U	0.003	0.001	
Benzo(b/c)fluorenes	U	0.003	0.001	
2-Methylpyrene	U	0.003	0.001	
4-Methylpyrene	U	0.003	0.001	
1-Methylpyrene	U	0.003	0.001	
Heptadecane	U	0.005	0.003	
Pristane	U	0.003	0.001	
Octadecane	U	0.005	0.003	
Phytane	U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SB		
File ID:	E021905.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	
Total PAH (16)	0.009	0.003	0.001	
Total PAH (42)	0.010	0.003	0.001	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	81	50 - 120
Phenanthrene-d10	90	50 - 120
Perylene-d12	77	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SBS		
File ID:	E021906.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
MAH & PAH COMPOUNDS:	Spike Amount				% Recovery
Benzene	2.50	1.72 B	0.003	0.001	69
Toluene	2.50	1.95 B	0.005	0.003	78
Ethylbenzene	2.50	1.89	0.003	0.001	76
m/p-Xylenes	2.50	1.95	0.003	0.001	78
Styrene	2.50	2.01 B	0.005	0.003	80
o-Xylene	2.50	1.92	0.003	0.001	77
Isopropylbenzene	2.50	1.92	0.003	0.001	77
n-Propylbenzene	2.50	1.89	0.003	0.001	76
1,3,5-Trimethylbenzene	2.50	1.91	0.003	0.001	76
1,2,4-Trimethylbenzene	2.50	1.88	0.003	0.001	75
t-Butylbenzene		U	0.003	0.001	
sec-Butylbenzene	2.50	1.92	0.003	0.001	77
p-Isopropyltoluene	2.50	1.97	0.003	0.001	79
n-Butylbenzene	2.50	1.98	0.003	0.001	79
C1 - Benzene		BU	0.005	0.003	
C2 - Benzene		U	0.003	0.001	
C3 - Benzene		U	0.003	0.001	
C4 - Benzene		U	0.003	0.001	
C5 - Benzene		U	0.003	0.001	
trans-Decalin		U	0.003	0.001	
cis-Decalin		U	0.003	0.001	
Naphthalene	2.50	2.05	0.003	0.001	82
2-Methylnaphthalene	2.50	1.99 B	0.003	0.001	80
1-Methylnaphthalene	2.50	1.98	0.003	0.001	79
C1 - Naphthalene		BU	0.003	0.001	
C2 - Naphthalene		U	0.003	0.001	
C3- Naphthalene		U	0.003	0.001	
C4- Naphthalene		U	0.003	0.001	
Acenaphthylene	2.50	2.03	0.003	0.001	81
Acenaphthene	2.50	1.98	0.003	0.001	79
Dibenzofuran	2.50	2.08	0.003	0.001	83
Fluorene	2.50	2.15	0.003	0.001	86
C1 - Fluorene		U	0.003	0.001	
C2 - Fluorene		U	0.003	0.001	
C3 - Fluorene		U	0.003	0.001	
Phenanthrene	2.50	2.16 B	0.003	0.001	86
Anthracene	2.50	2.15	0.003	0.001	86

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SBS		
File ID:	E021906.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)		RL	EDL	Comments
C1 - Phenanthrene/Anthracene		U	0.003	0.001	
C2 - Phenanthrene/Anthracene		U	0.003	0.001	
C3 - Phenanthrene/Anthracene		U	0.003	0.001	
C4 - Phenanthrene/Anthracene		U	0.003	0.001	
Dibenzothiophene	2.50	2.1	0.003	0.001	84
C1 - Dibenzothiophene		U	0.003	0.001	
C2 - Dibenzothiophene		U	0.003	0.001	
C3 - Dibenzothiophene		U	0.003	0.001	
C4 - Dibenzothiophene		U	0.003	0.001	
Benzo(b)naphtho(2,1-d)thiophene		U	0.003	0.001	
Fluoranthene	2.50	2.19 B	0.003	0.001	88
Pyrene	2.50	2.13 B	0.003	0.001	85
C1 - Fluoranthene/Pyrene		U	0.003	0.001	
C2 - Fluoranthene/Pyrene		U	0.003	0.001	
C3 - Fluoranthene/Pyrene		U	0.003	0.001	
Benz[a]anthracene	2.50	2.05 B	0.003	0.001	82
Chrysene*	2.50	2.07 B	0.003	0.001	83
C1 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C2 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C3 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
C4 - Benz(a)anthracene/Chrysene		U	0.003	0.001	
Benzo[b]fluoranthene	2.50	2.08	0.003	0.001	83
Benzo[j/k]fluoranthene	2.50	2.13	0.003	0.001	85
Benzo(e)pyrene	2.50	2.02	0.003	0.001	81
Benzo[a]pyrene	2.50	2.01 B	0.003	0.001	80
Perylene		U	0.003	0.001	
Indeno[1,2,3-cd]pyrene	2.50	2.12	0.003	0.001	85
Dibenz[a,h]anthracene	2.50	2.15	0.003	0.001	86
Benzo[g,h,i]perylene	2.50	1.94	0.003	0.001	78
Coronene		U	0.003	0.001	
Retene		U	0.003	0.001	
Benzo(b/c)fluorenes		U	0.003	0.001	
2-Methylpyrene		U	0.003	0.001	
4-Methylpyrene		U	0.003	0.001	
1-Methylpyrene		U	0.003	0.001	
Heptadecane		U	0.005	0.003	
Pristane		U	0.003	0.001	
Octadecane		U	0.005	0.003	
Phytane		U	0.003	0.001	

Analytical Results for Volatile and Semivolatile Organics META Environmental, Inc.

Field ID: Soil Blank Spike

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	QC080212-SBS		
File ID:	E021906.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	NA	Decanted:	None
Date Received:	NA		
Date Prepared:	2/12/2008	Sample Size (g):	4.00
Date Cleanup:	NA	Percent Solid:	100%
Date Analyzed:	2/19/2008	Extract Volume (µl):	2000
Instrument:	EI Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	1.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	U	0.003	0.001	
2,6,10-trimethyltridecane	U	0.003	0.001	
Norpristane	U	0.003	0.001	

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	78	50 - 120
Phenanthrene-d10	89	50 - 120
Perylene-d12	74	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

* - Triphenylene is known to coelute with this compound.

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-01DUP-D		
File ID:	E021912.D	Matrix:	Soil
		Preservation:	None
		Decanted:	None
Date Sampled:	2/7/2008		
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
MAH & PAH COMPOUNDS:				RPD
Benzene	0.115 B	0.026	0.013	1.8
Toluene	0.107 B	0.052	0.026	7.2
Ethylbenzene	5.63	0.026	0.013	10.3
m/p-Xylenes	12.0	0.026	0.013	9.5
Styrene	8.71 B	0.052	0.026	5.8
o-Xylene	6.55	0.026	0.013	8.3
Isopropylbenzene	1.6	0.026	0.013	8.4
n-Propylbenzene	1.08	0.026	0.013	6.3
1,3,5-Trimethylbenzene	9.03	0.026	0.013	5.5
1,2,4-Trimethylbenzene	20.8	0.026	0.013	5.2
t-Butylbenzene	U	0.026	0.013	NA
sec-Butylbenzene	0.239	0.026	0.013	4.1
p-Isopropyltoluene	1.75	0.026	0.013	5
n-Butylbenzene	1.59	0.026	0.013	5.5
C1 - Benzene	0.063 B	0.052	0.026	7.6
C2 - Benzene	10.6	0.026	0.013	9.9
C3 - Benzene	25.4	0.026	0.013	6.1
C4 - Benzene	12.6	0.026	0.013	4.7
C5 - Benzene	4.65	0.026	0.013	3.4
trans-Decalin	1.48	0.026	0.013	4
cis-Decalin	0.109	0.026	0.013	15.3
Naphthalene	22.9	0.026	0.013	3.4
2-Methylnaphthalene	64.0 B	0.026	0.013	2.3
1-Methylnaphthalene	40.5	0.026	0.013	2.7
C1 - Naphthalene	64.9 B	0.026	0.013	2.4
C2 - Naphthalene	63.3	0.026	0.013	2.7
C3- Naphthalene	31.1	0.026	0.013	2.9
C4- Naphthalene	12.5	0.026	0.013	3.1
Acenaphthylene	28.1	0.026	0.013	2.8
Acenaphthene	4.78	0.026	0.013	1.5
Dibenzofuran	2.99	0.026	0.013	4.3
Fluorene	25.1	0.026	0.013	2.8
C1 - Fluorene	19.9	0.026	0.013	4.6
C2 - Fluorene	13.5	0.026	0.013	1.5
C3 - Fluorene	5.77	0.026	0.013	0.9
Phenanthrene	66.7 B	0.026	0.013	2.2
Anthracene	26.4	0.026	0.013	2.6

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
		Analysis Method:	EPA 8270M
Lab ID	HC080209-01DUP-D		
File ID:	E021912.D	Matrix:	Soil
		Preservation:	None
Date Sampled:	2/7/2008	Decanted:	None
Date Received:	2/9/2008		
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
C1 - Phenanthrene/Anthracene	61.1	0.026	0.013	2.7
C2 - Phenanthrene/Anthracene	27.9	0.026	0.013	1.4
C3 - Phenanthrene/Anthracene	8.42	0.026	0.013	4.5
C4 - Phenanthrene/Anthracene	2.16	0.026	0.013	5
Dibenzothiophene	8.39	0.026	0.013	2.1
C1 - Dibenzothiophene	11.3	0.026	0.013	1.8
C2 - Dibenzothiophene	9.01	0.026	0.013	3.1
C3 - Dibenzothiophene	4.41	0.026	0.013	2.2
C4 - Dibenzothiophene	1.39	0.026	0.013	0
Benzo(b)naphtho(2,1-d)thiophene	2.27	0.026	0.013	2.6
Fluoranthene	21.3 B	0.026	0.013	2.8
Pyrene	33.4 B	0.026	0.013	2.7
C1 - Fluoranthene/Pyrene	36.4	0.026	0.013	2.2
C2 - Fluoranthene/Pyrene	11.8	0.026	0.013	0.8
C3 - Fluoranthene/Pyrene	3.5	0.026	0.013	0.6
Benz[a]anthracene	12.7 B	0.026	0.013	2.3
Chrysene*	12.2 B	0.026	0.013	3.2
C1 - Benz(a)anthracene/Chrysene	10.1	0.026	0.013	2.9
C2 - Benz(a)anthracene/Chrysene	3.87	0.026	0.013	0
C3 - Benz(a)anthracene/Chrysene	1.04	0.026	0.013	3.8
C4 - Benz(a)anthracene/Chrysene	0.424	0.026	0.013	7.3
Benzo[b]fluoranthene	3.56	0.026	0.013	3.3
Benzo[j/k]fluoranthene	4.92	0.026	0.013	2.2
Benzo(e)pyrene	4.26	0.026	0.013	2.8
Benzo[a]pyrene	8.8 B	0.026	0.013	2.7
Perylene	1.16	0.026	0.013	1.7
Indeno[1,2,3-cd]pyrene	2.82	0.026	0.013	2.1
Dibenz[a,h]anthracene	0.854	0.026	0.013	0.1
Benzo[g,h,i]perylene	2.62	0.026	0.013	2.6
Coronene	0.569	0.026	0.013	3.2
Retene	U	0.026	0.013	NA
Benzo(b/c)fluorenes	5.23	0.026	0.013	3.8
2-Methylpyrene	5.22	0.026	0.013	1.7
4-Methylpyrene	4.35	0.026	0.013	2.7
1-Methylpyrene	5.42	0.026	0.013	2.4
Heptadecane	U	0.052	0.026	NA
Pristane	31.9	0.026	0.013	3.7
Octadecane	U	0.052	0.026	NA
Phytane	21.5	0.026	0.013	2.8

Analytical Results for Volatile and Semivolatile Organics

META Environmental, Inc.

Field ID: Duplicate of 0802315-001D

Client:	H2M	Preparation Method:	EPA 3570
Project:	URS - KEY	Cleanup Method(s):	NA
Lab ID	HC080209-01DUP-D	Analysis Method:	EPA 8270M
File ID:	E021912.D	Matrix:	Soil
Date Sampled:	2/7/2008	Preservation:	None
Date Received:	2/9/2008	Decanted:	None
Date Prepared:	2/12/2008	Sample Size (g):	4.13
Date Cleanup:	NA	Percent Solid:	93%
Date Analyzed:	2/20/2008	Extract Volume (µl):	2000
Instrument:	El Camino	Prep DF:	1.00
Operator:	JAR	Analysis DF:	10.00
		Injection Volume (µl):	1.00
Batch QC:	QC080212-SB		

Analyte	Concentration (mg/kg dry wt.)	RL	EDL	Comments
2,6,10-trimethyldodecane	8.45	0.026	0.013	3.1
2,6,10-trimethyltridecane	15.4	0.026	0.013	1.9
Norpristane	17.2	0.026	0.013	4.5
Total PAH (16)	277	0.026	0.013	2.5
Total PAH (42)	698	0.026	0.013	2.3

Extraction Surrogate Recoveries (%)

		Limits
Toluene-d8	74	50 - 120
Phenanthrene-d10	96	50 - 120
Perylene-d12	97	50 - 120

NA - Not applicable.

B - Analyte detected in the Blank.

J - Estimated value; detected between the RL and DL.

U - Analyte not detected above DL.

D - Analyte reported from a diluted extract.

E - Estimate, result detected above calibration range.

I - Concentration/Peak ID uncertain due to potential interference.

RL - Reporting limit is the sample equivalent of the lowest linear calibration concentration.

EDL - Estimated detection limit is 50% of RL.

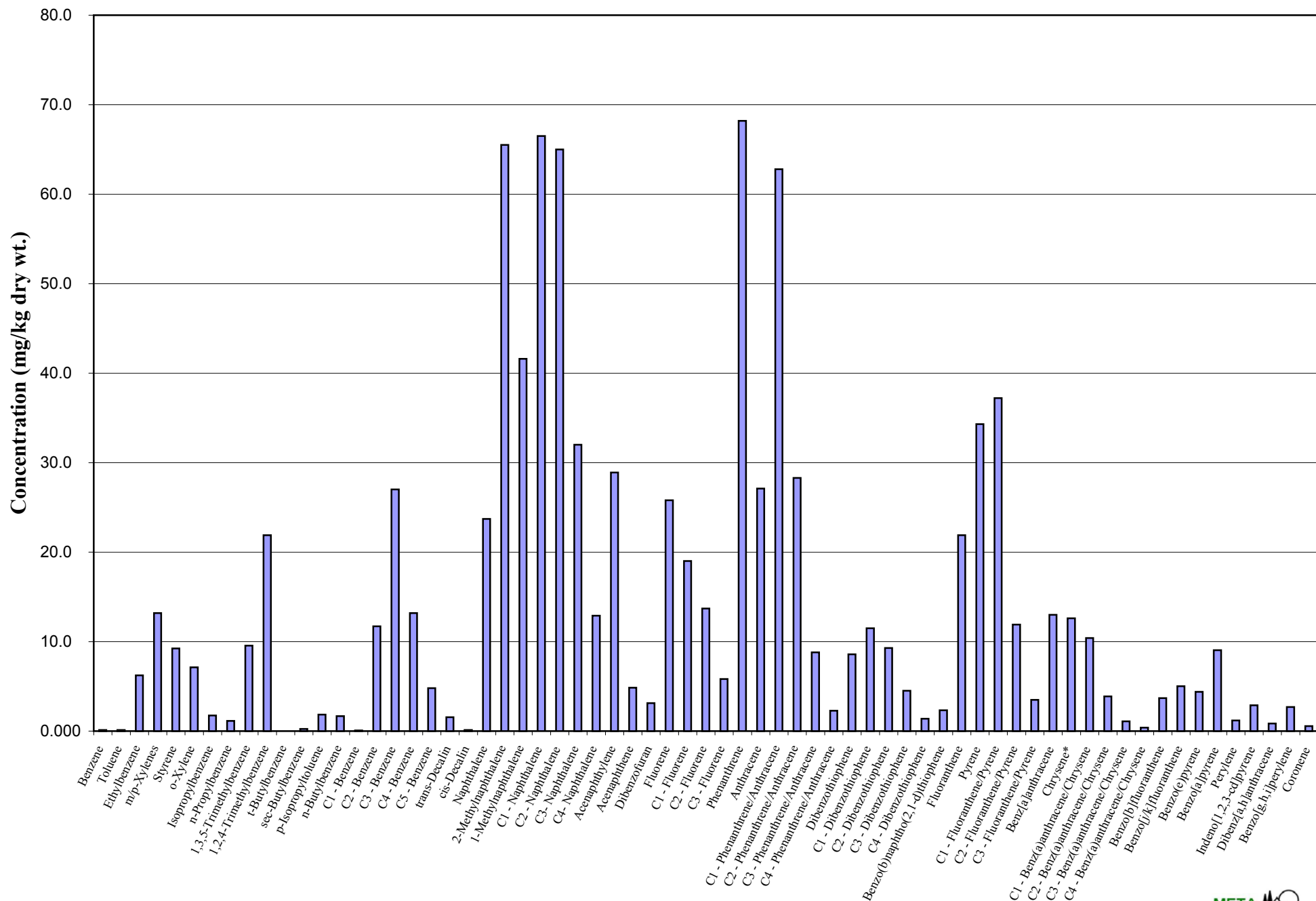
* - Triphenylene is known to coelute with this compound.

Appendix D

Extended MAH/PAH Profiles – Histograms

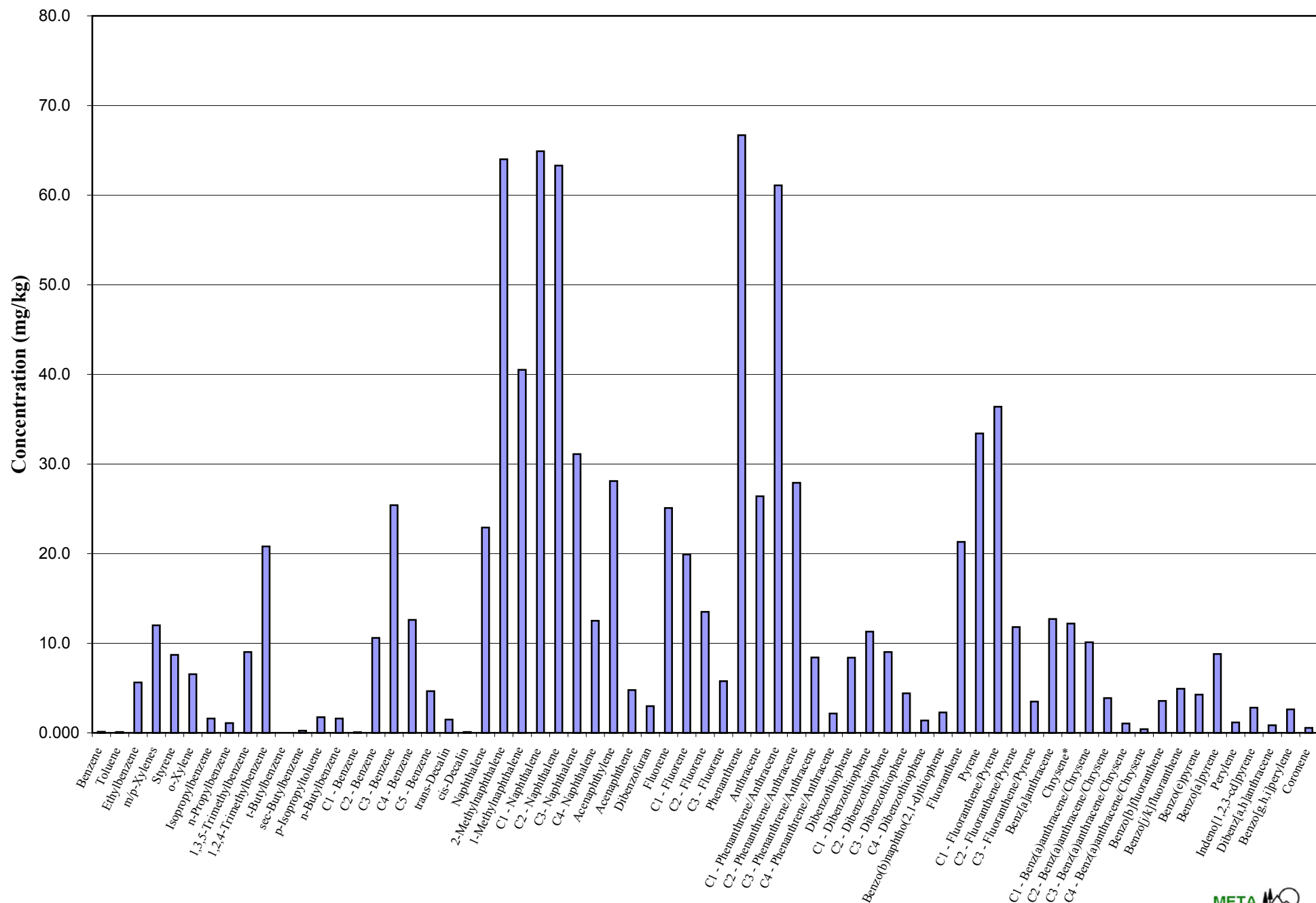
0802315-001D

HC080209-01-D



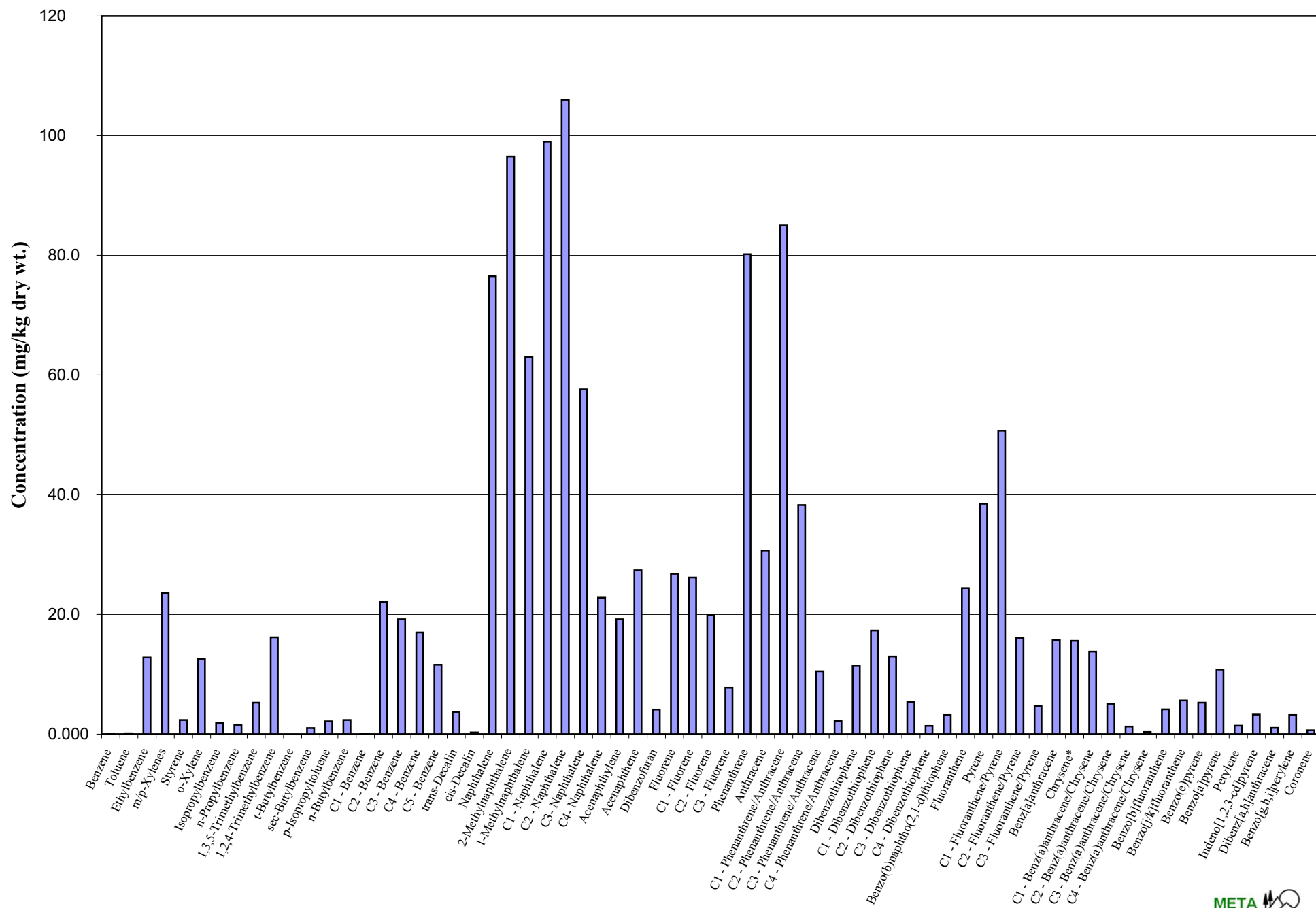
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HC080209-01DUP-D



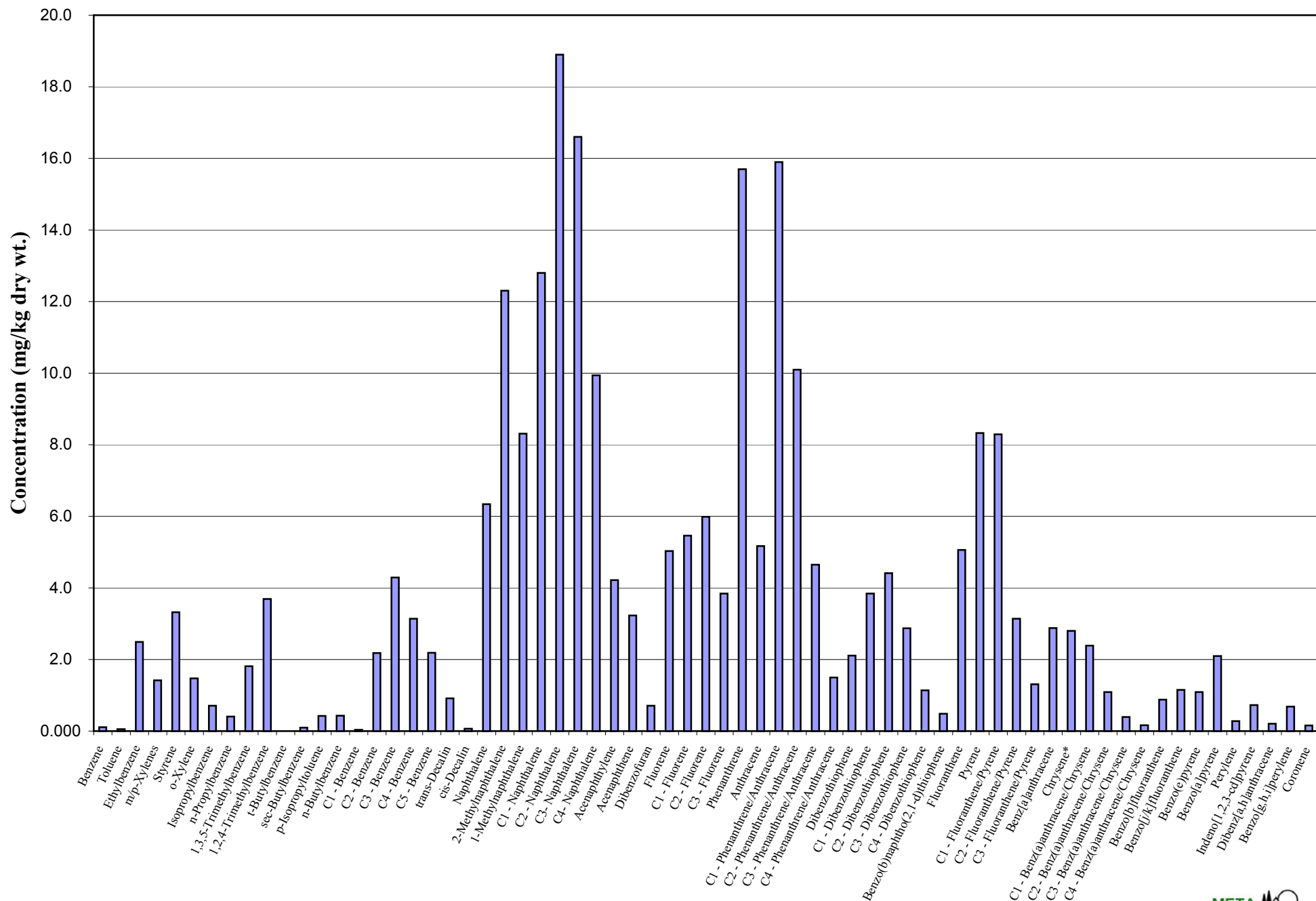
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HC080209-02-D



0802315-003D

HC080209-03-D

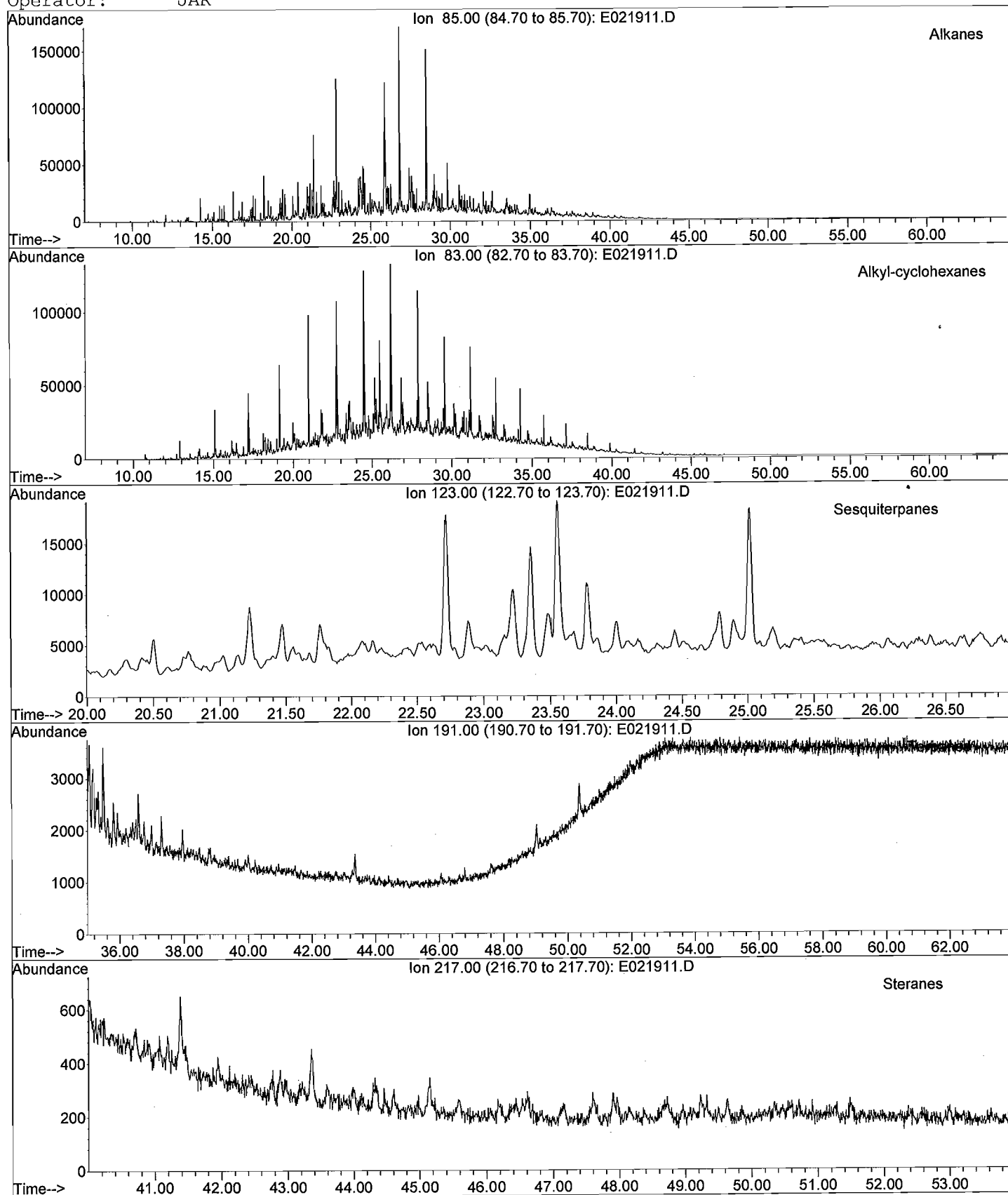


Appendix E

Extracted Ion Current Profiles (EICPs)

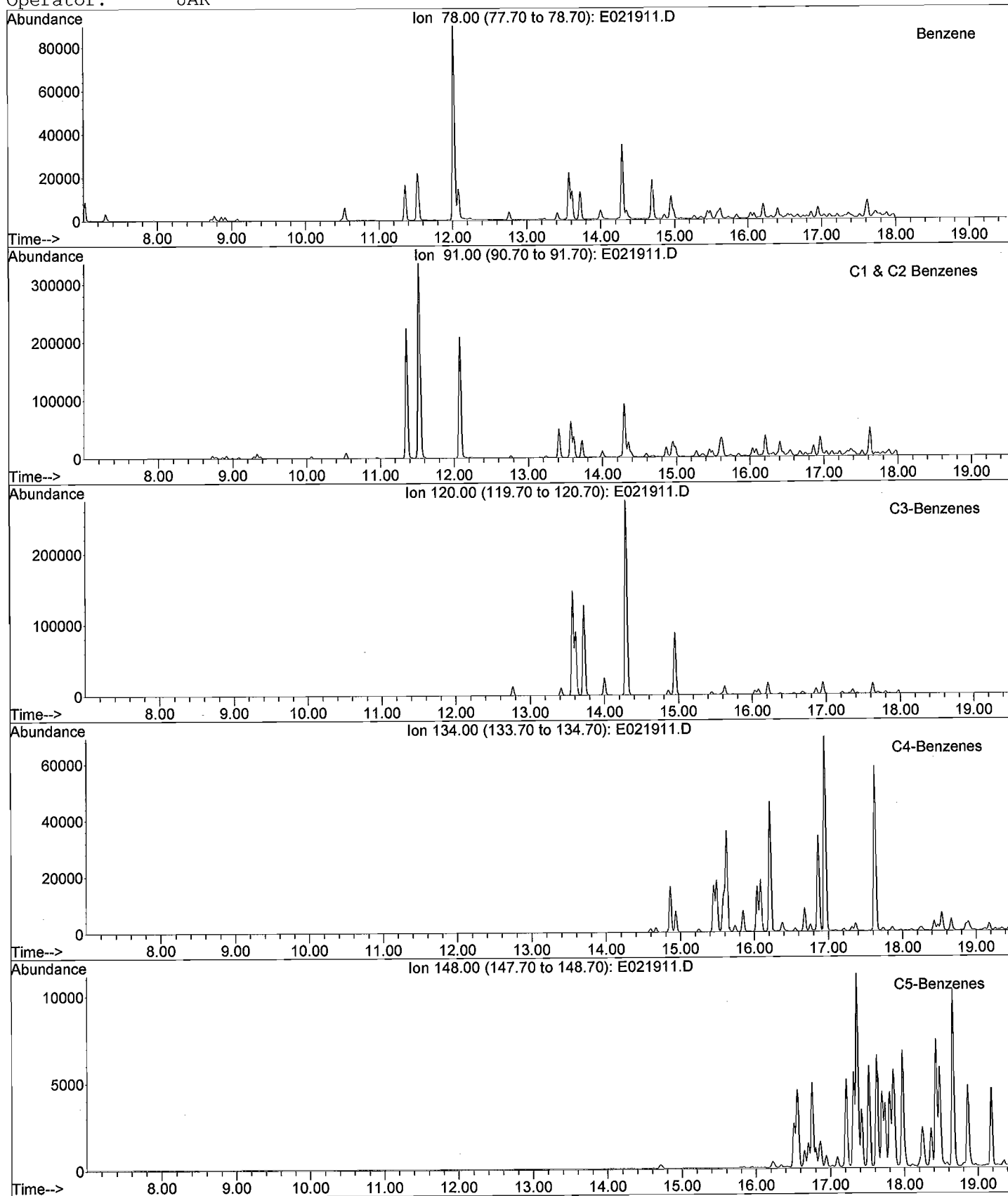
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Date Acquired: 20 Feb 2008 1:14 am
Method File: 4008SIMT.M
Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



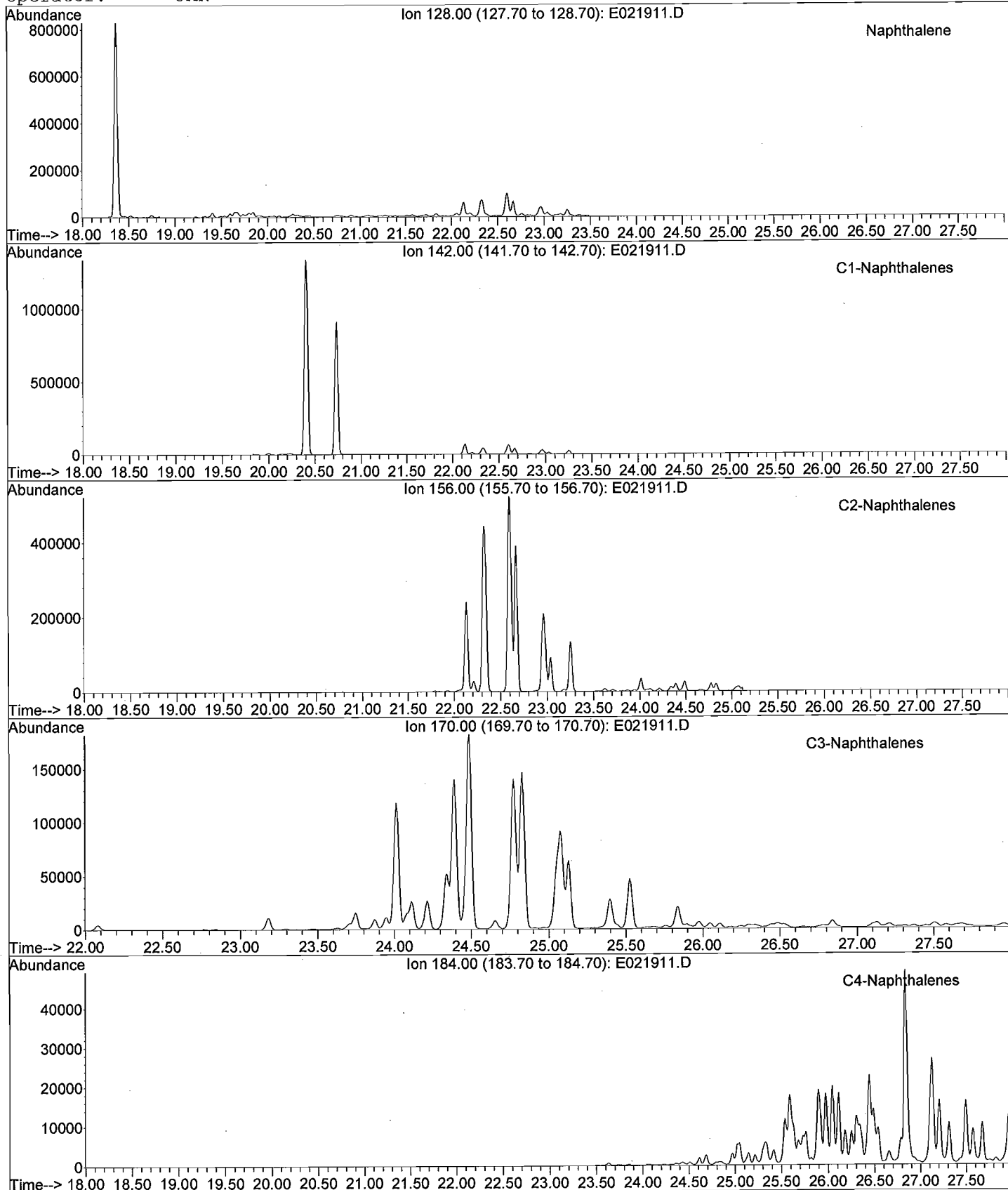
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Method File: 4008SIMT.M
Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



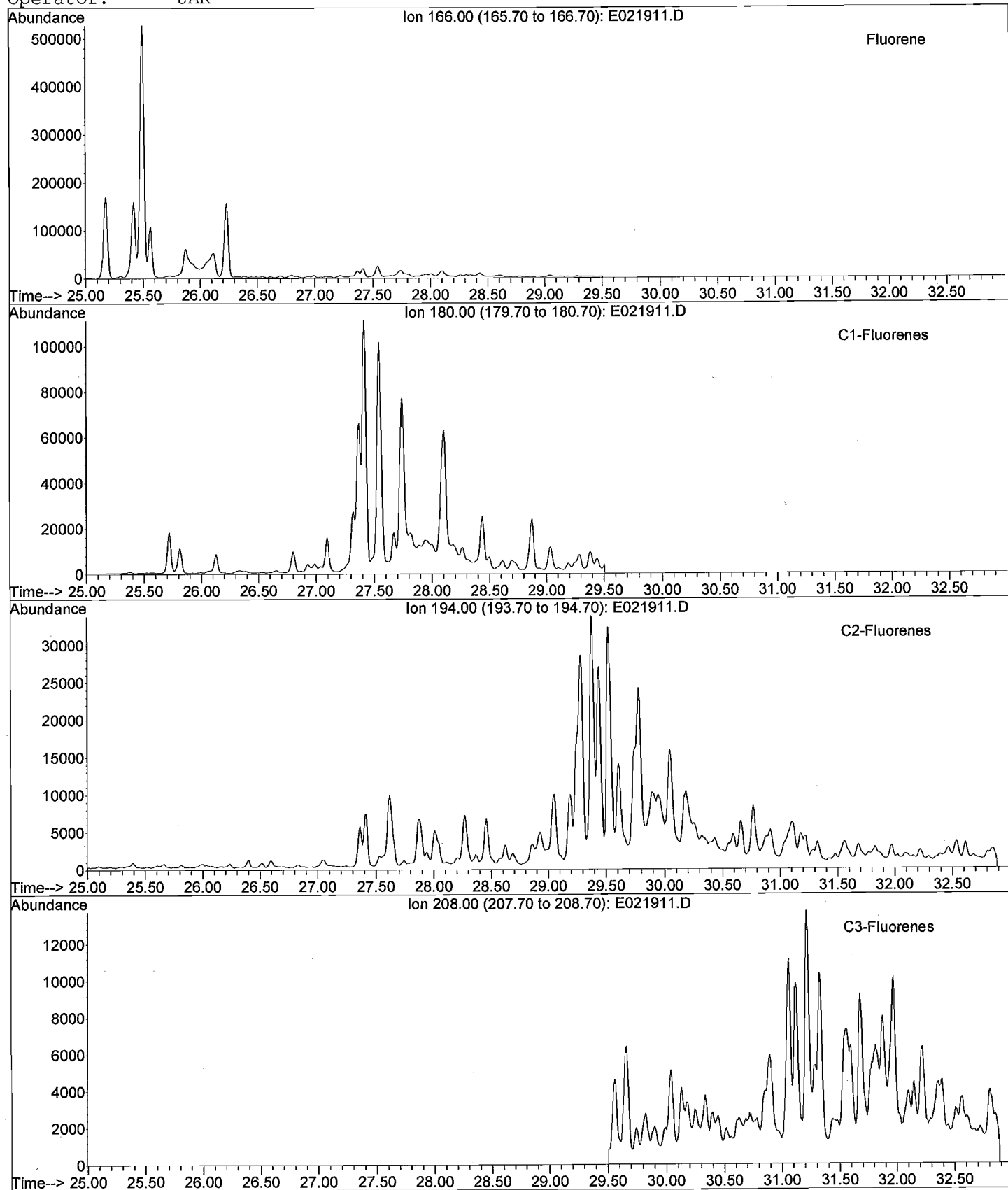
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



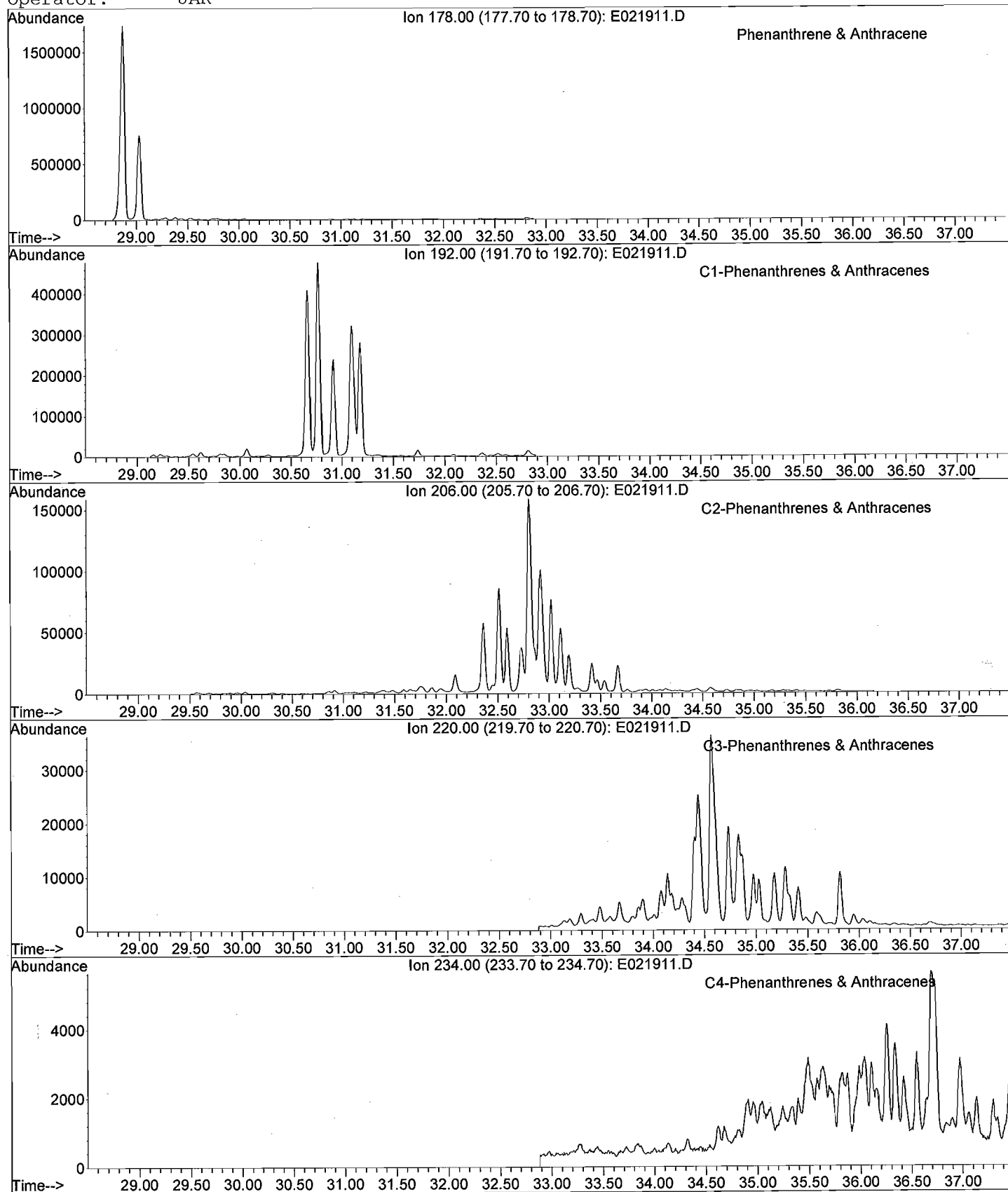
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



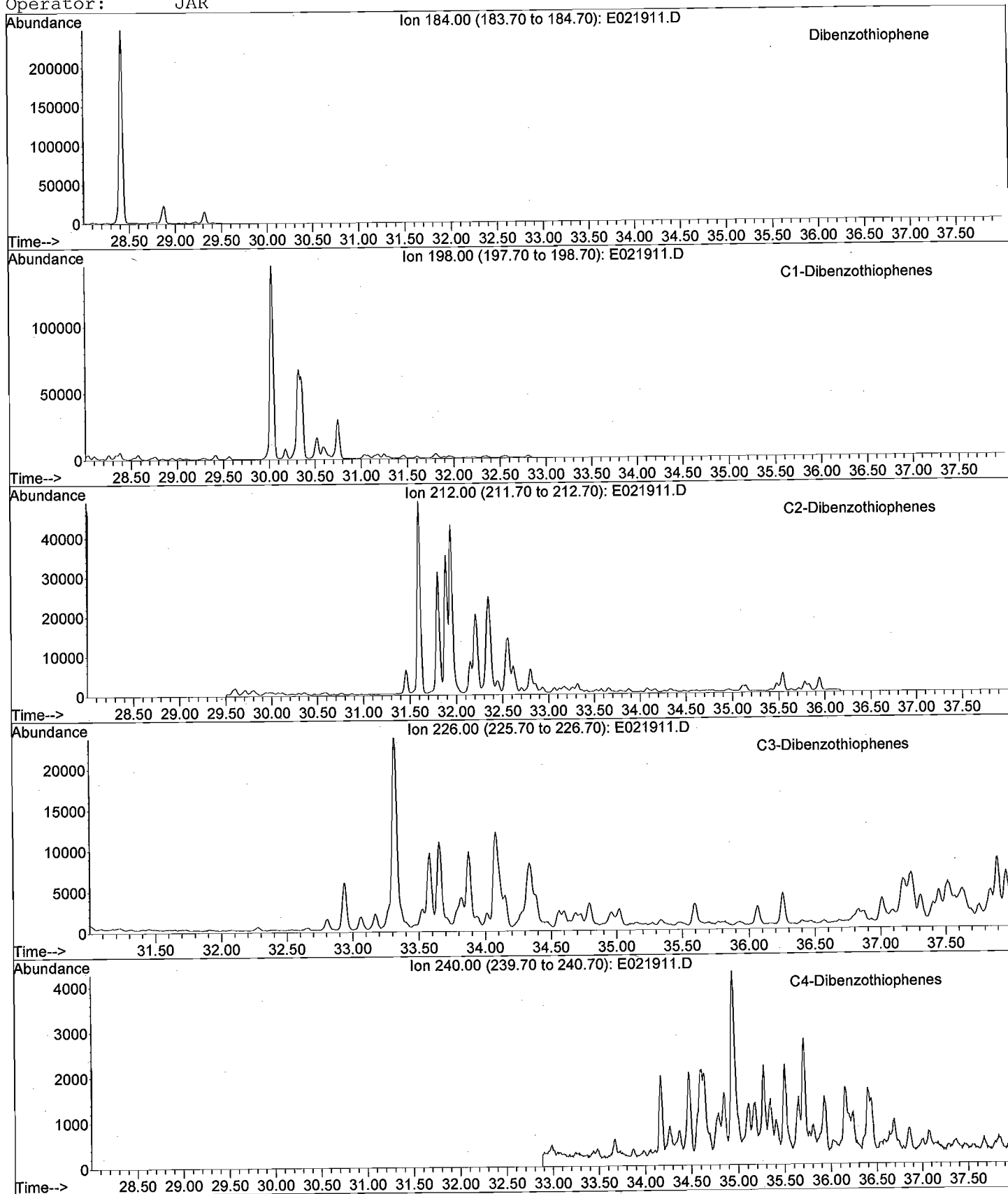
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



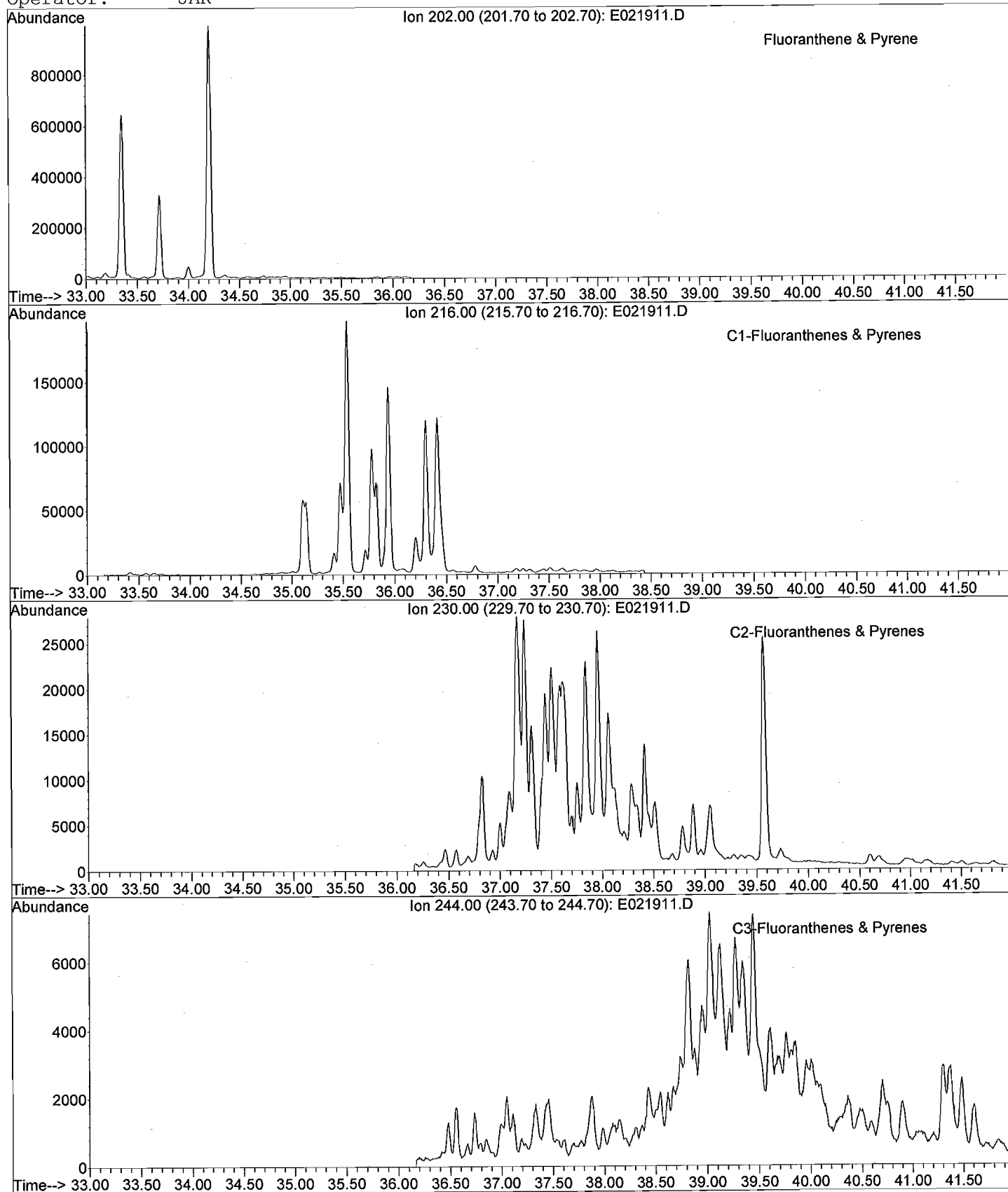
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



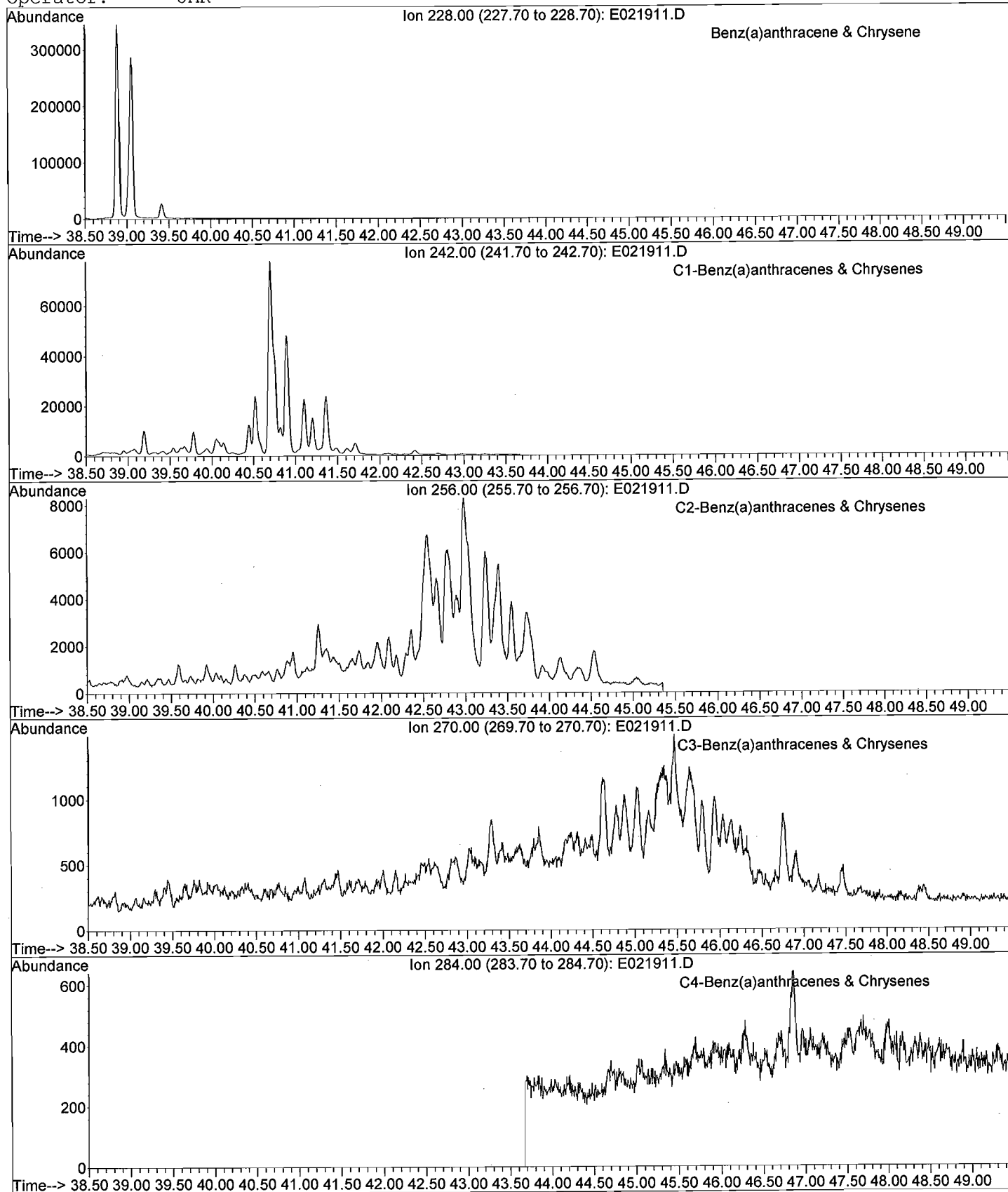
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



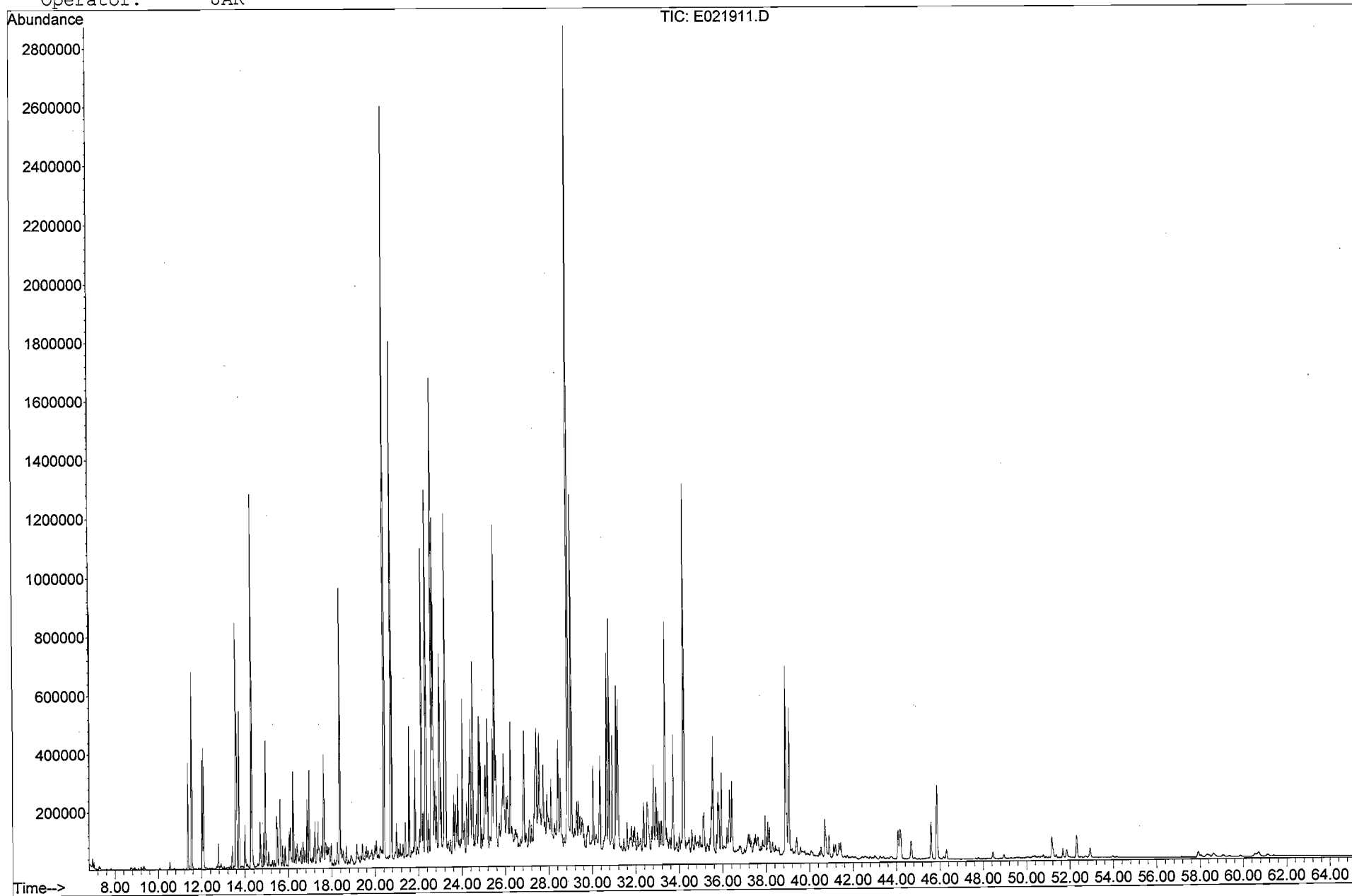
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



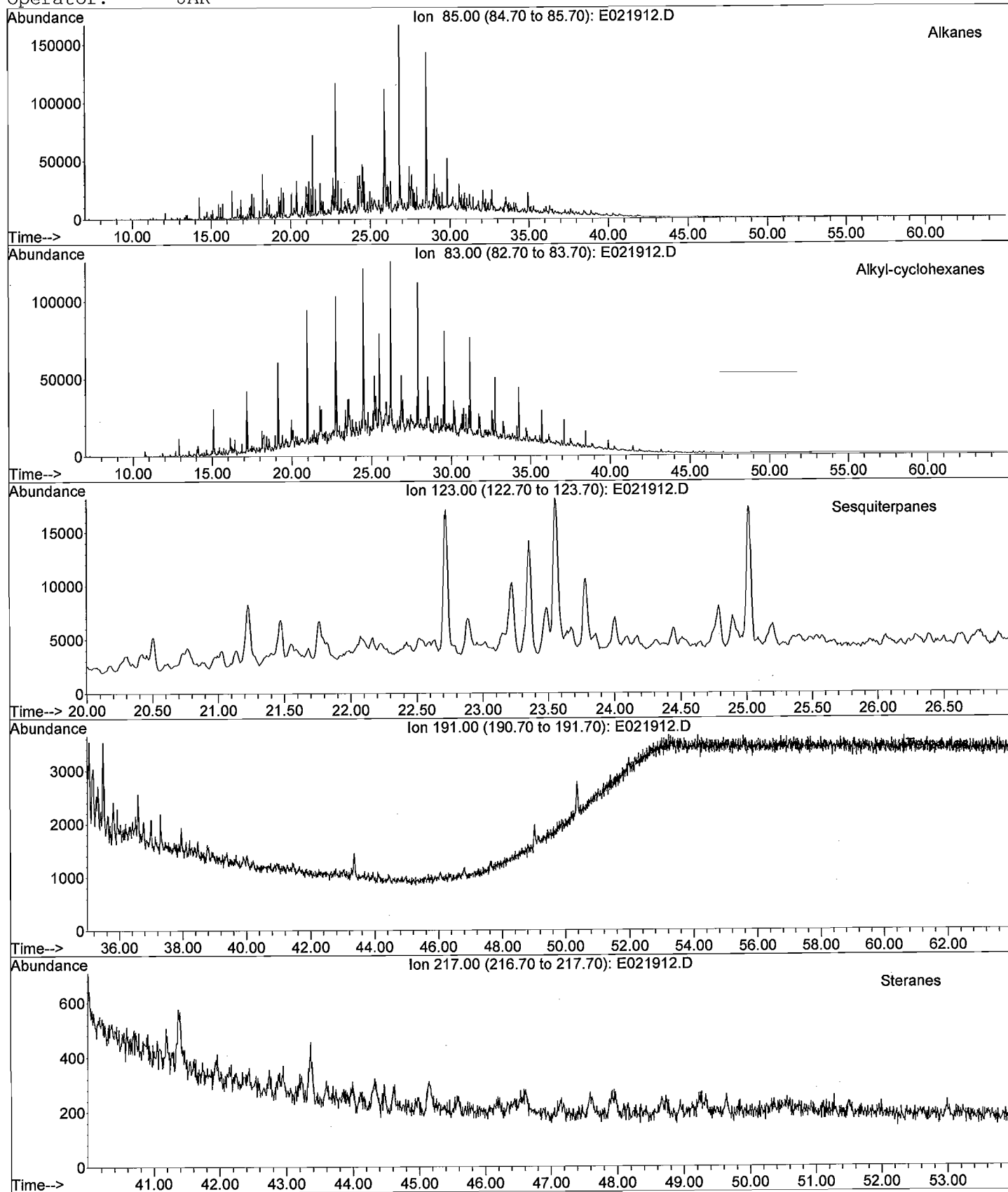
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Sample Name: HC080209-01-D
Misc Info: 0802315-001D - 10X
Operator: JAR



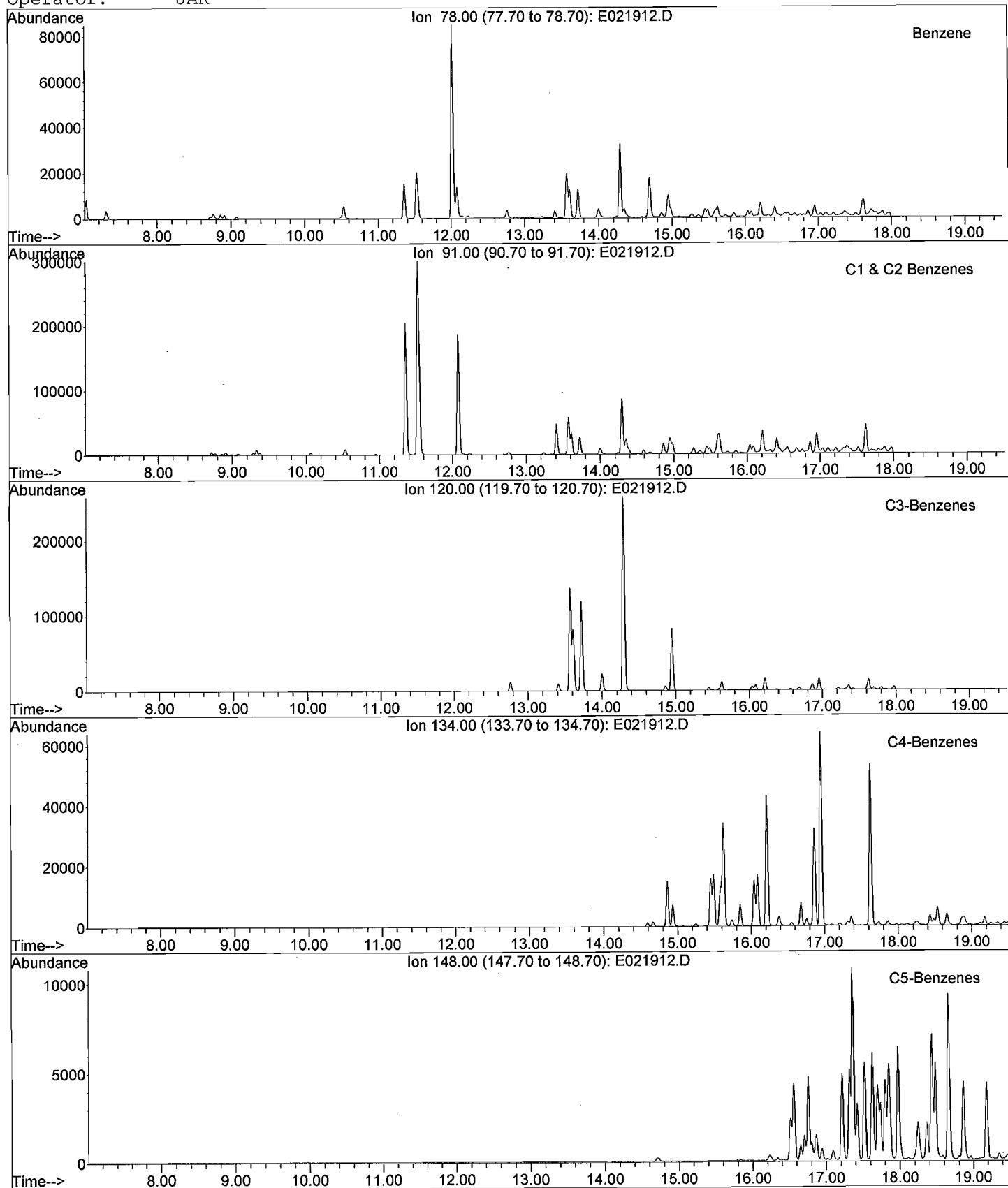
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Method File: 4008SIMT.M
Sample Name: HC080209-01DUP-D
Misc Info: Duplicate of 0802315-001D - 10X
Operator: JAR



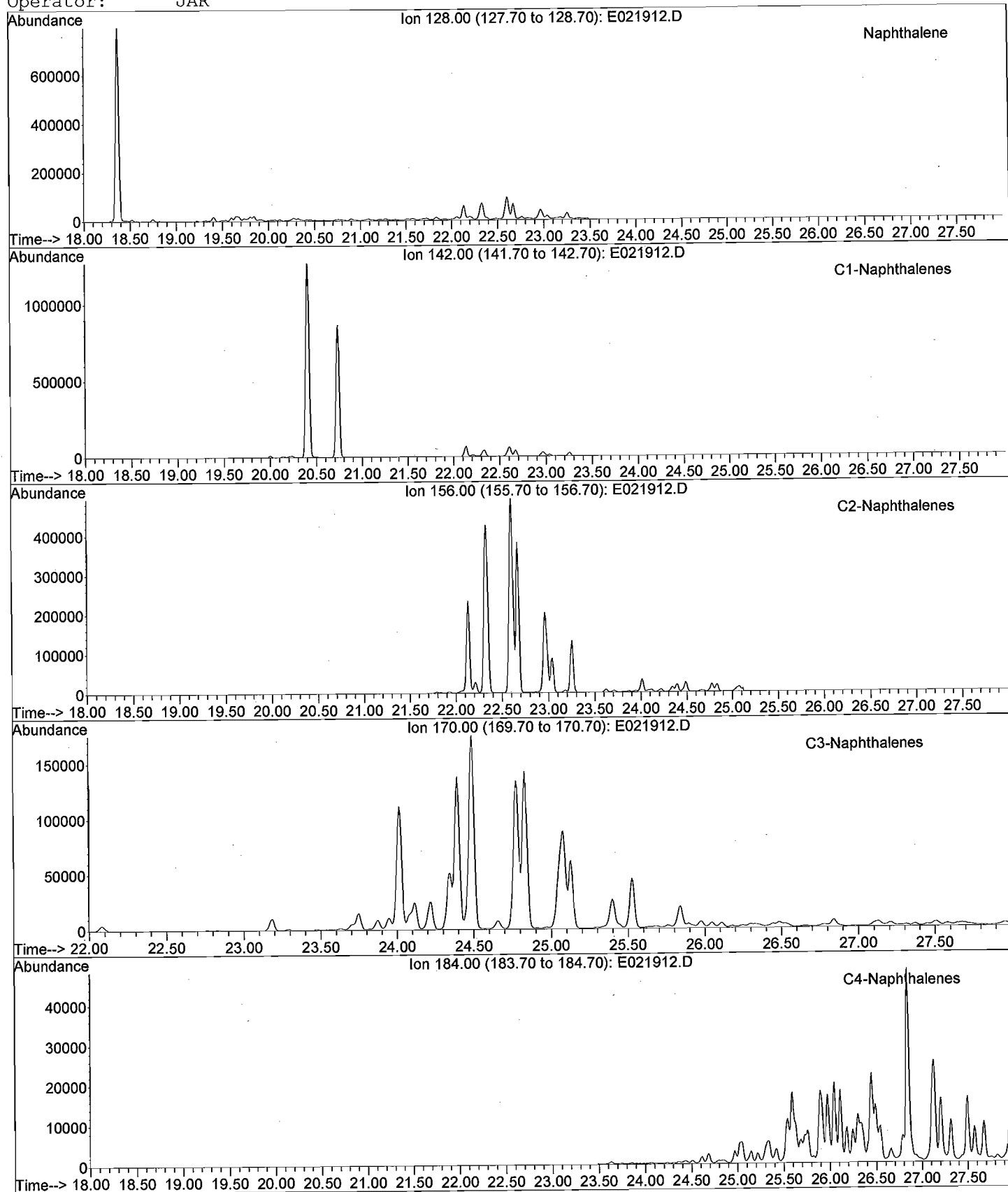
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Operator: JAR



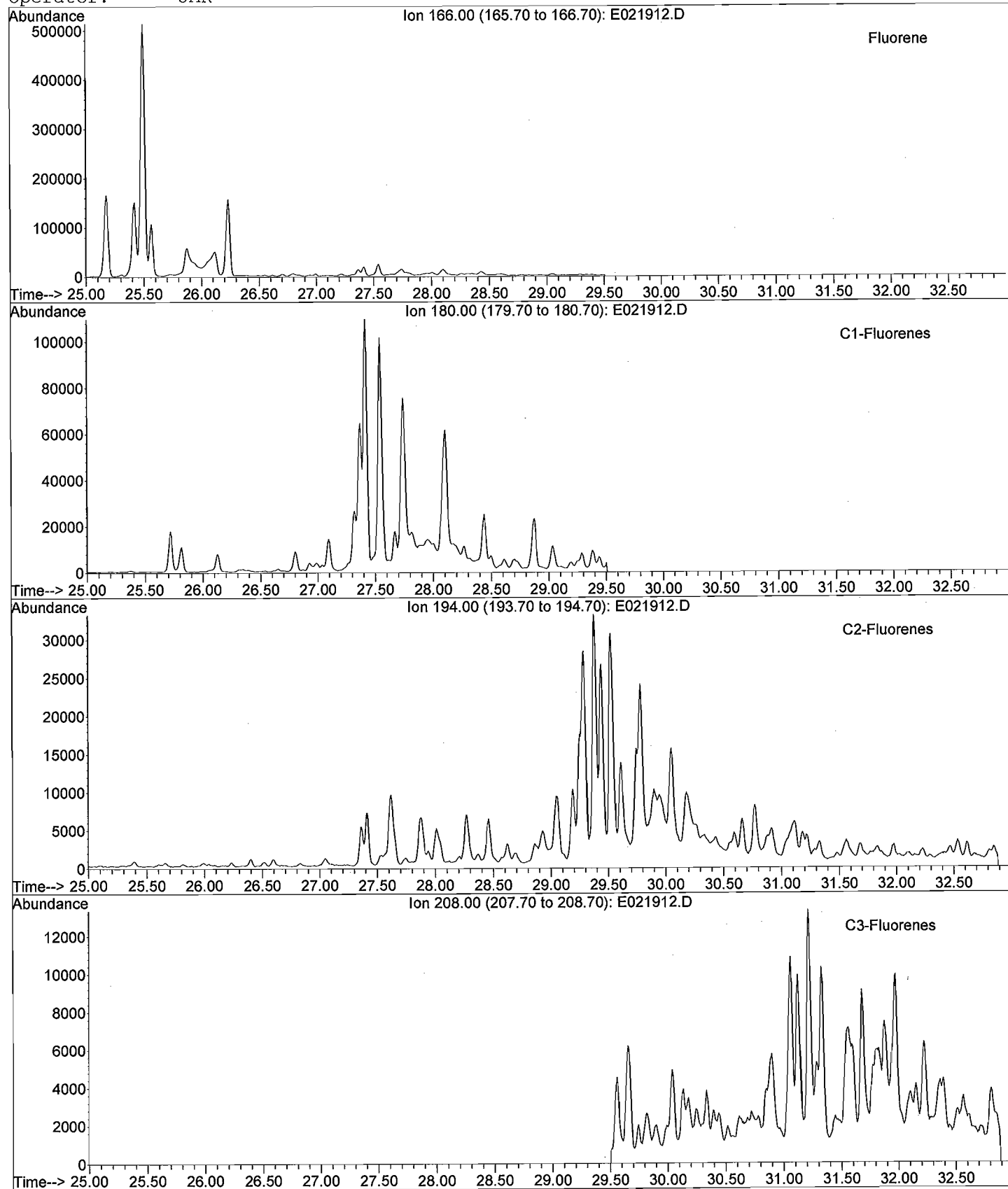
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Misc Info: Duplicate of 0802315-001D - 10X
Operator: JAR



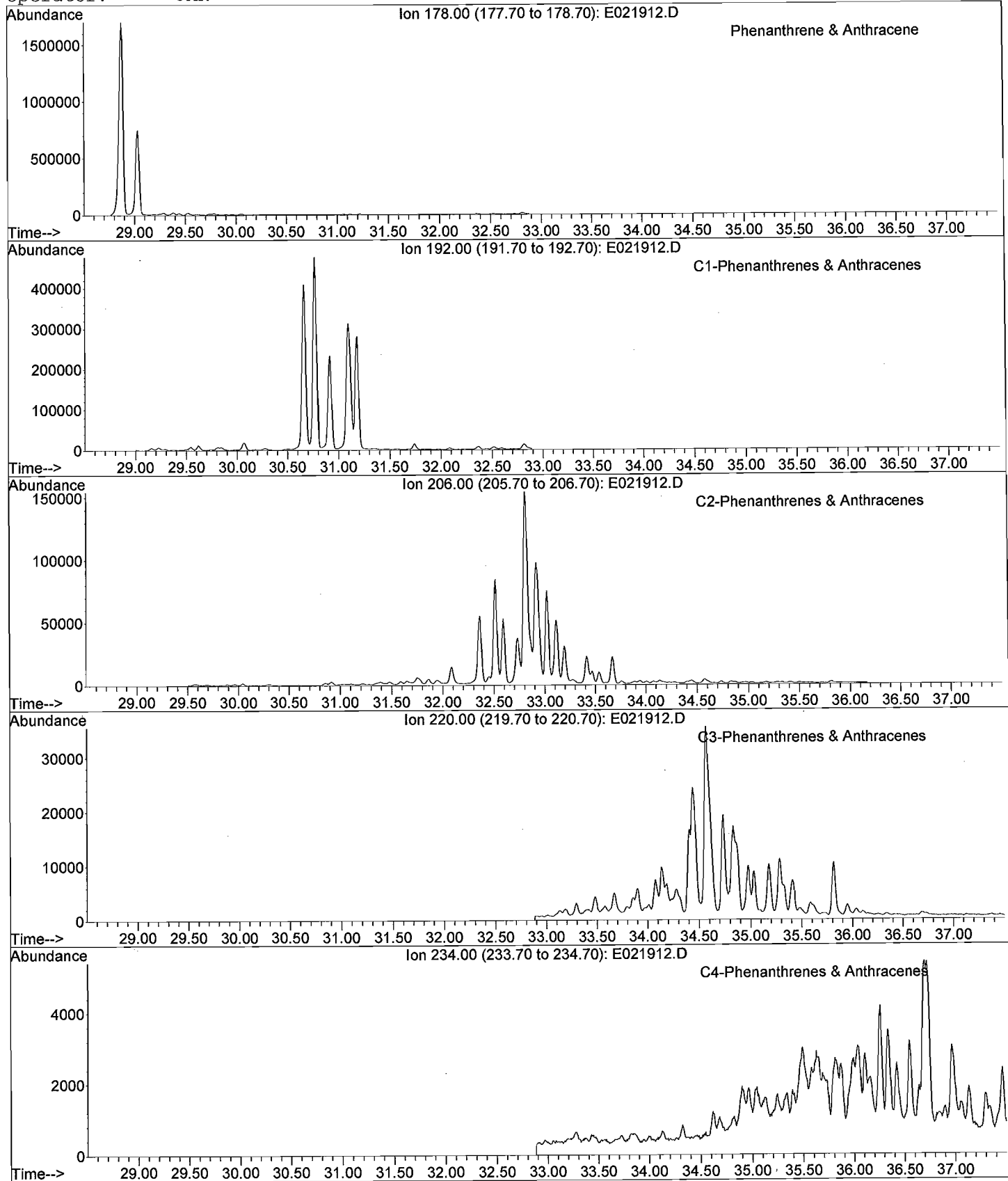
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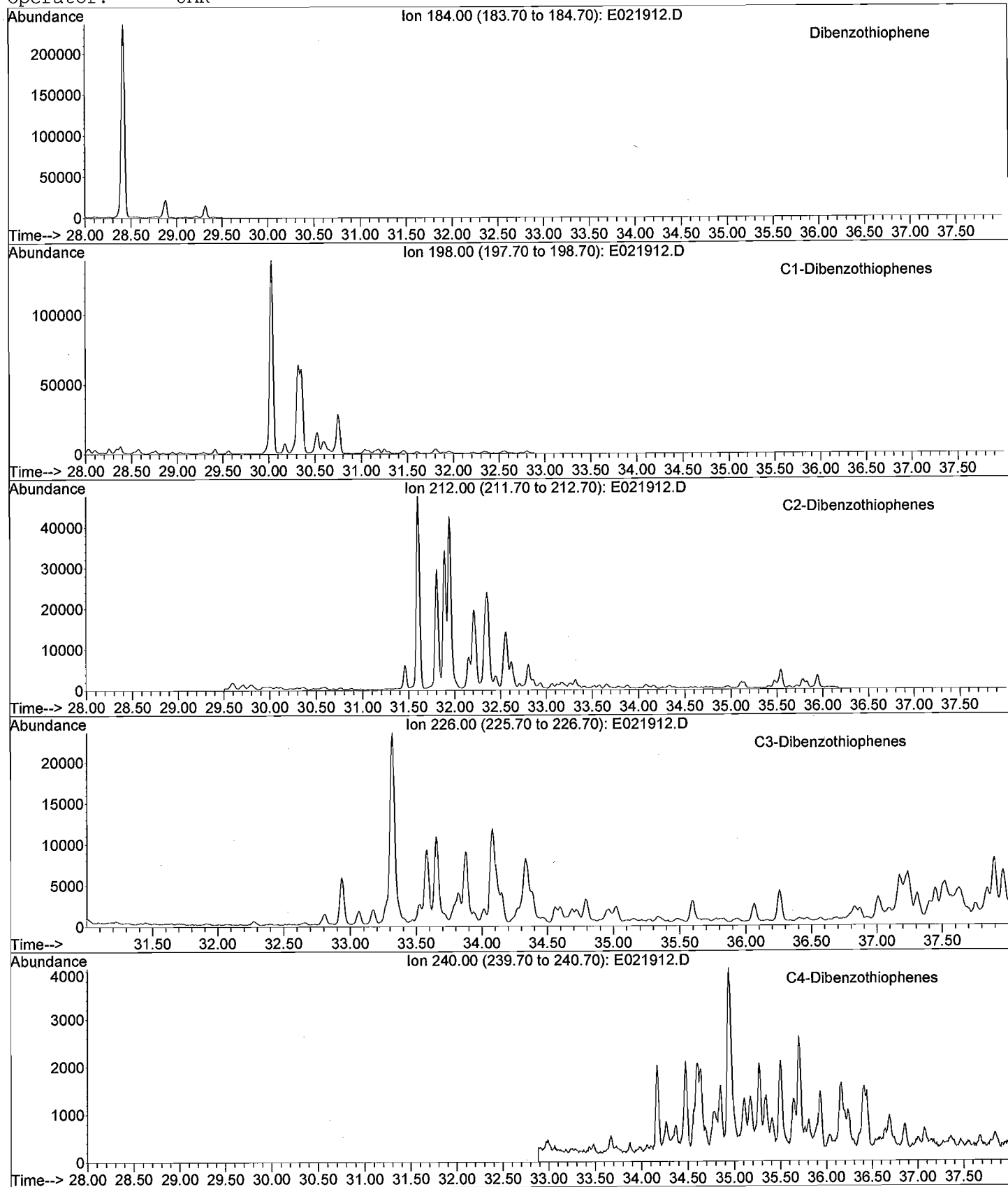
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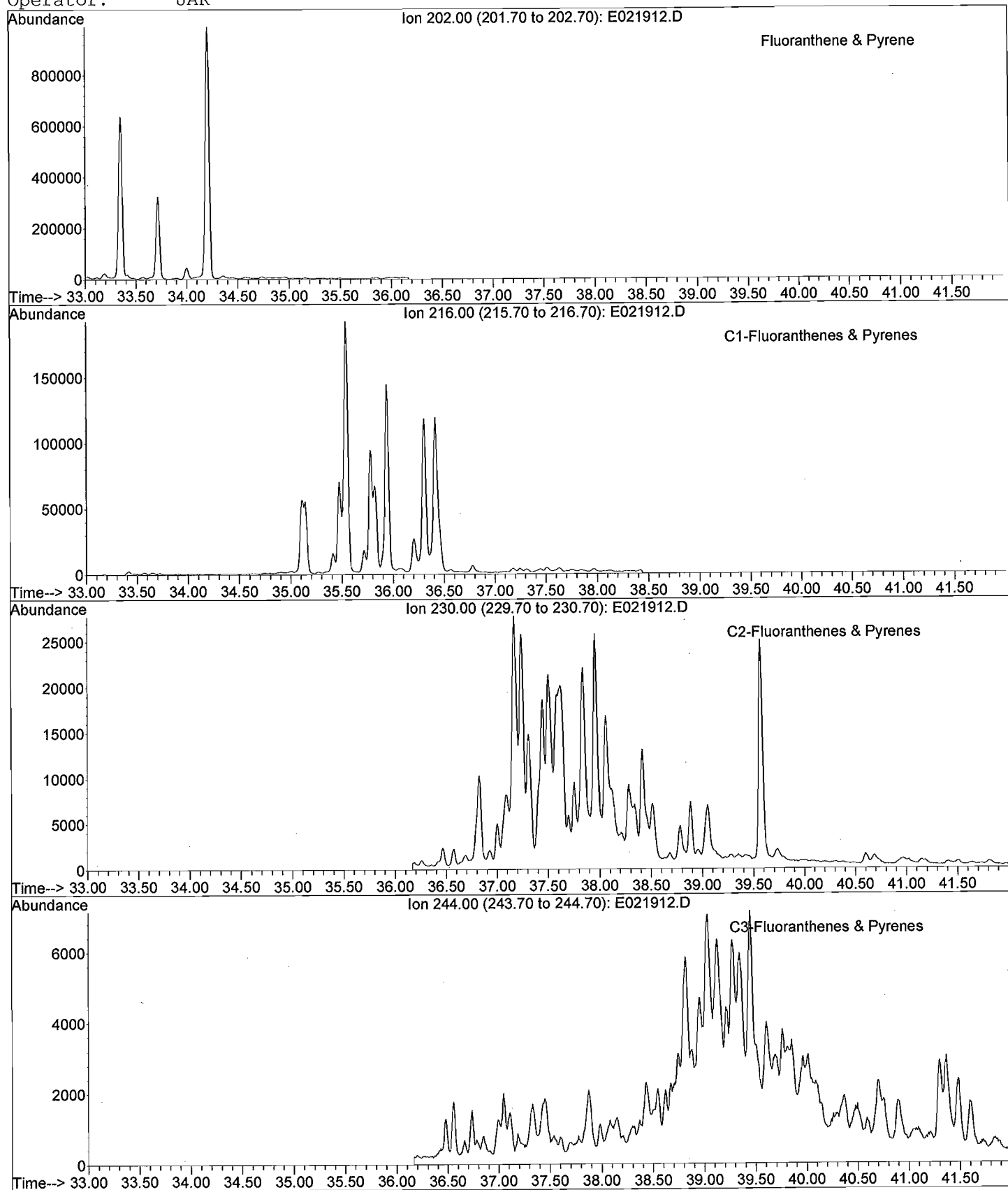
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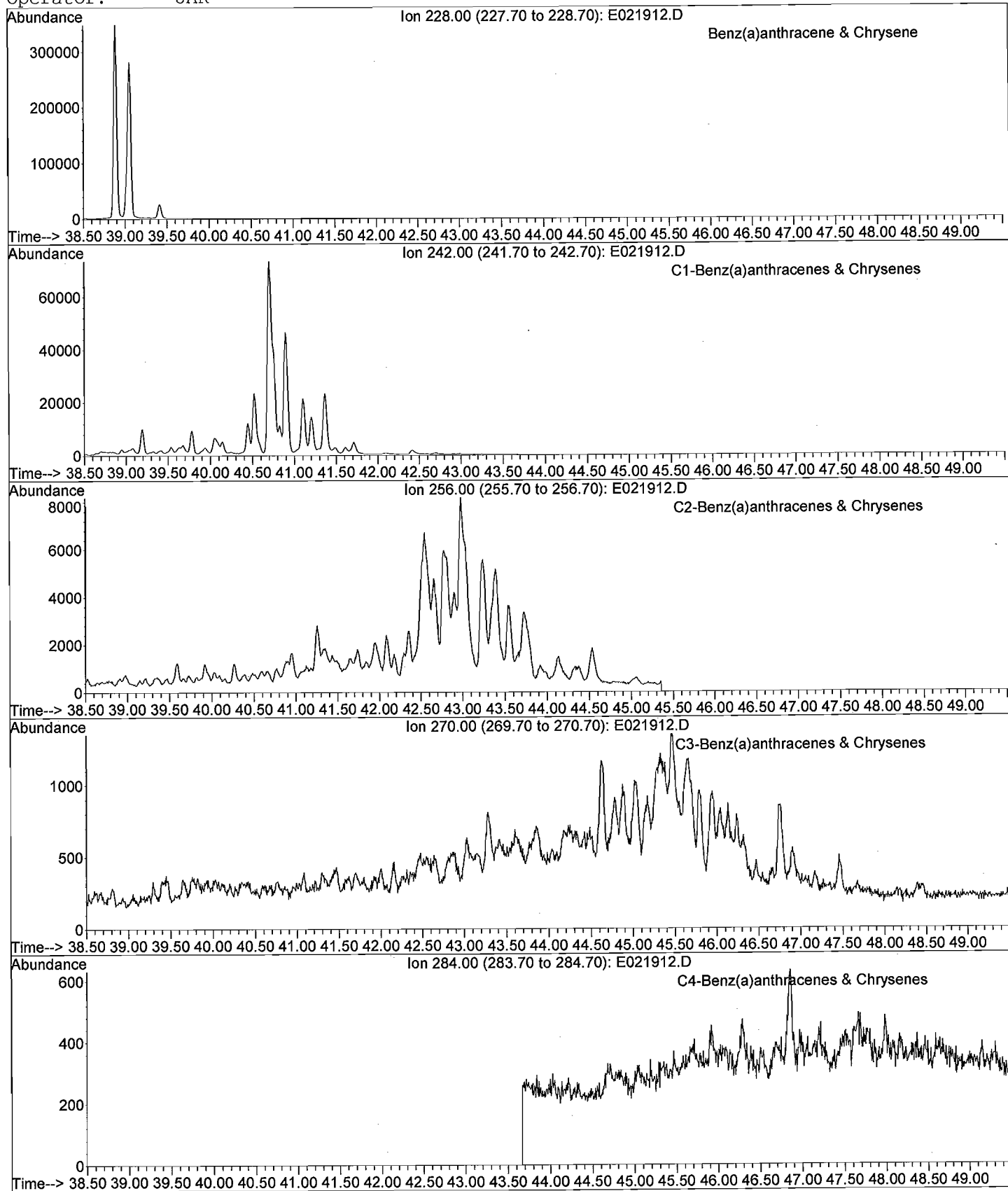
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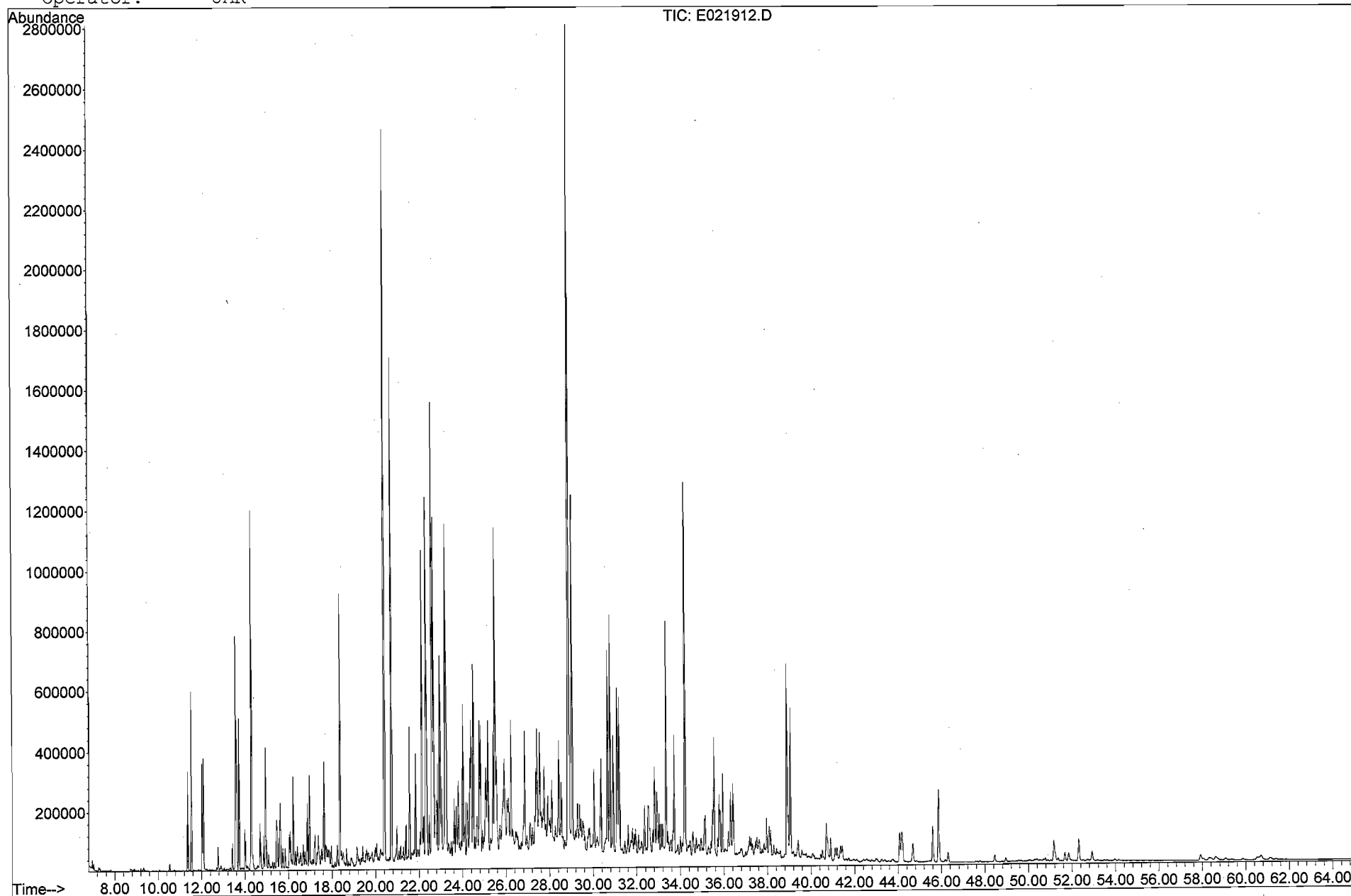
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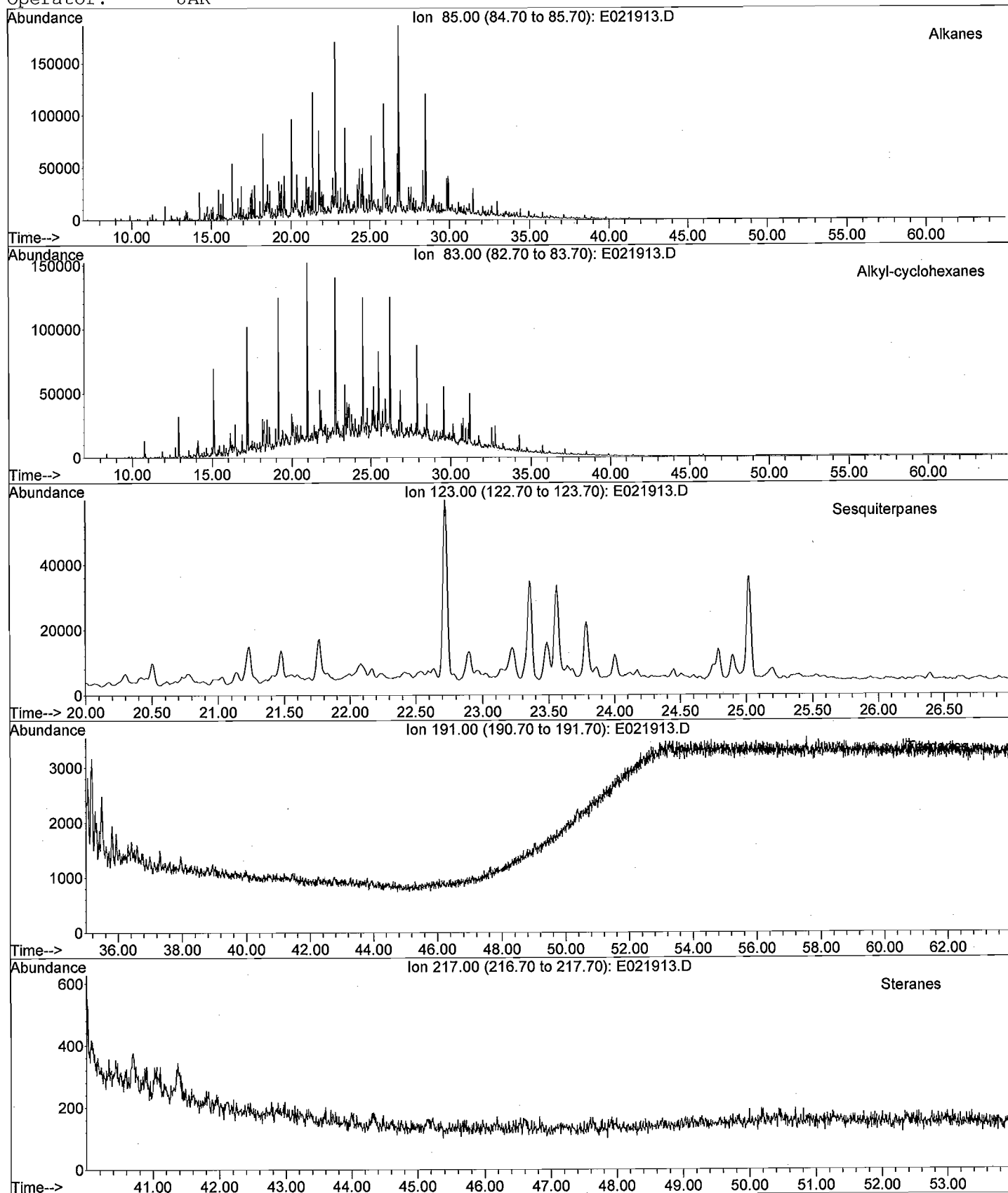
GC/MS TOTAL ION CHROMATOGRAM

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Operator: JAR



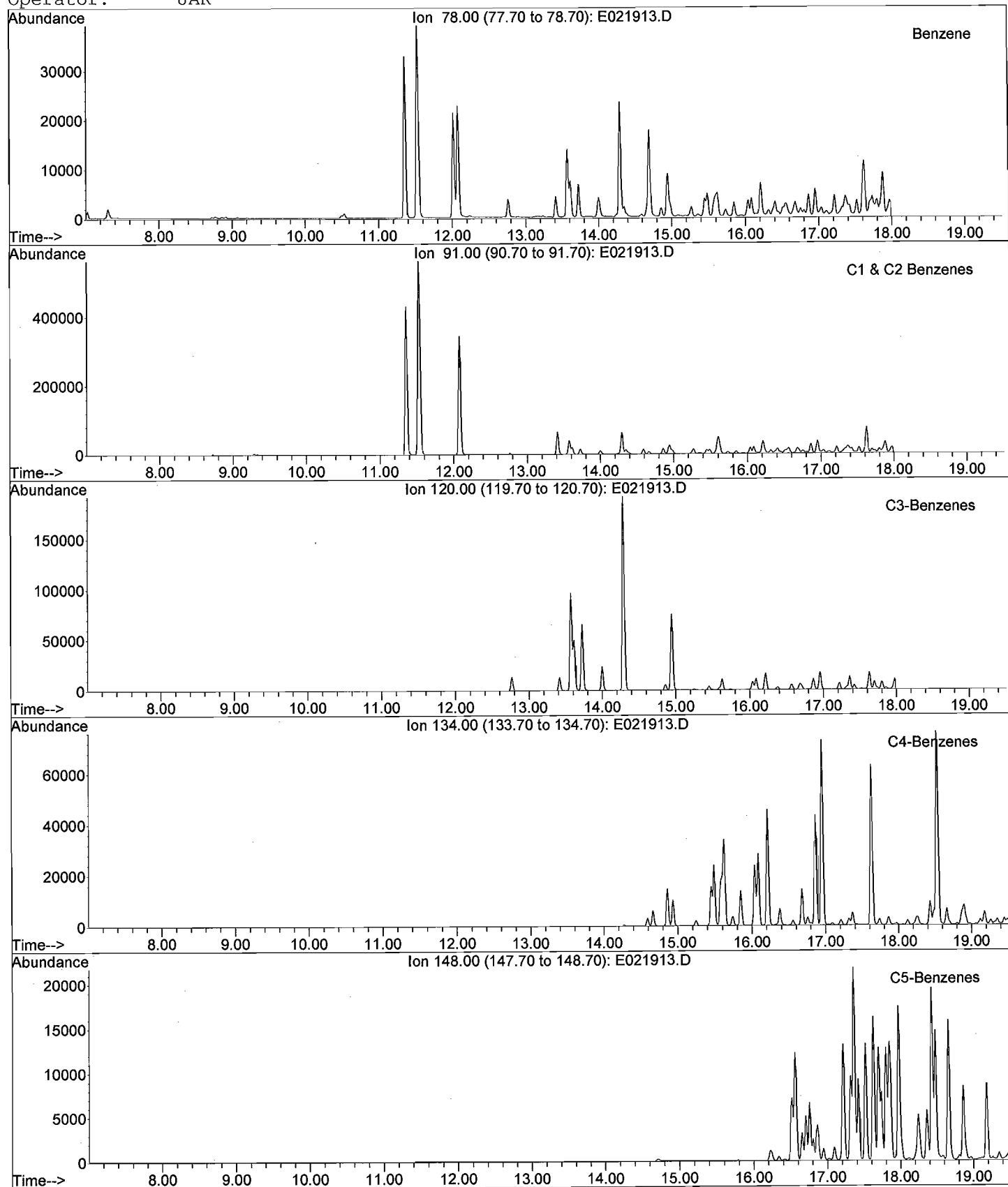
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Method File: 4008SIMT.M
Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



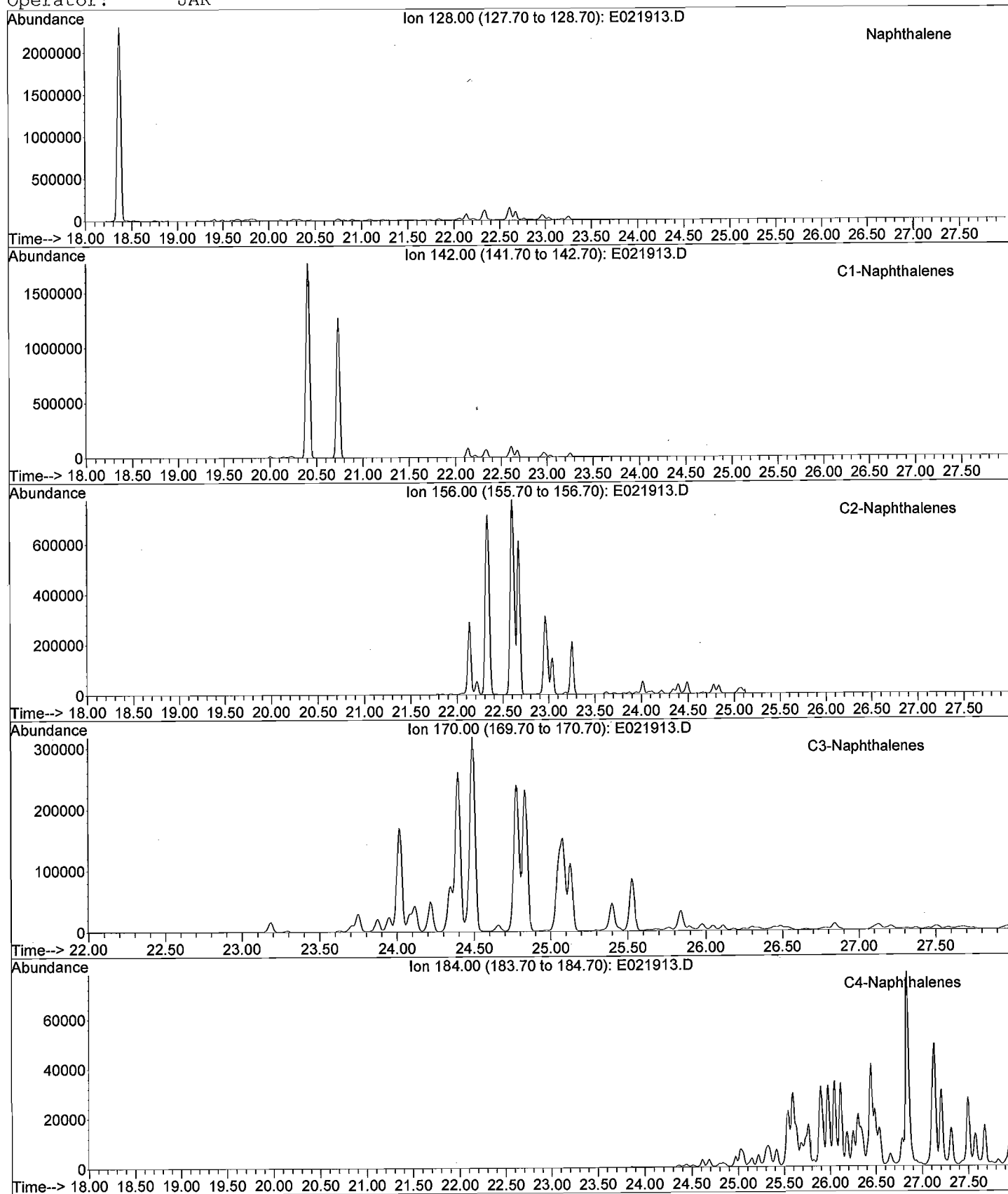
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



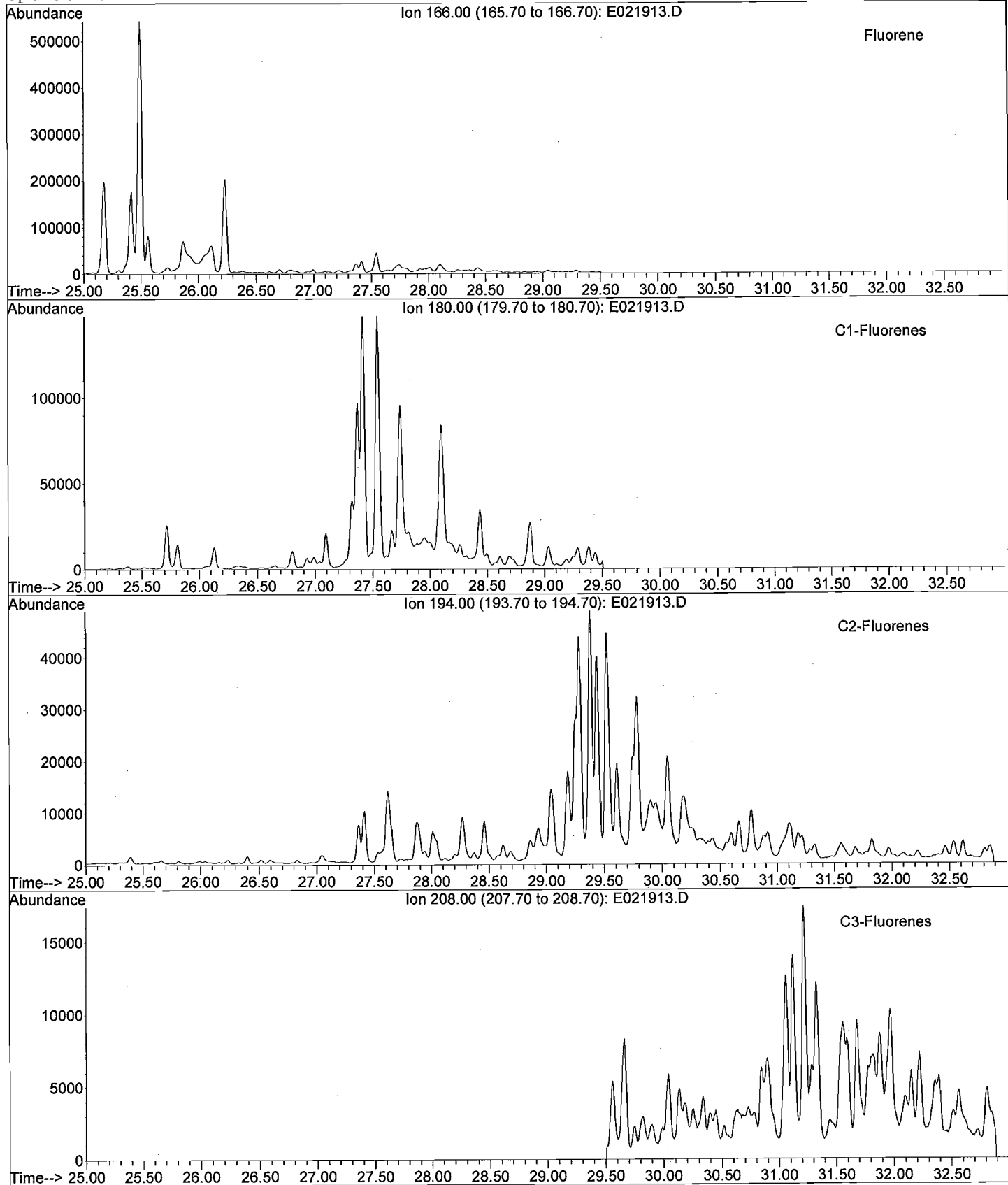
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



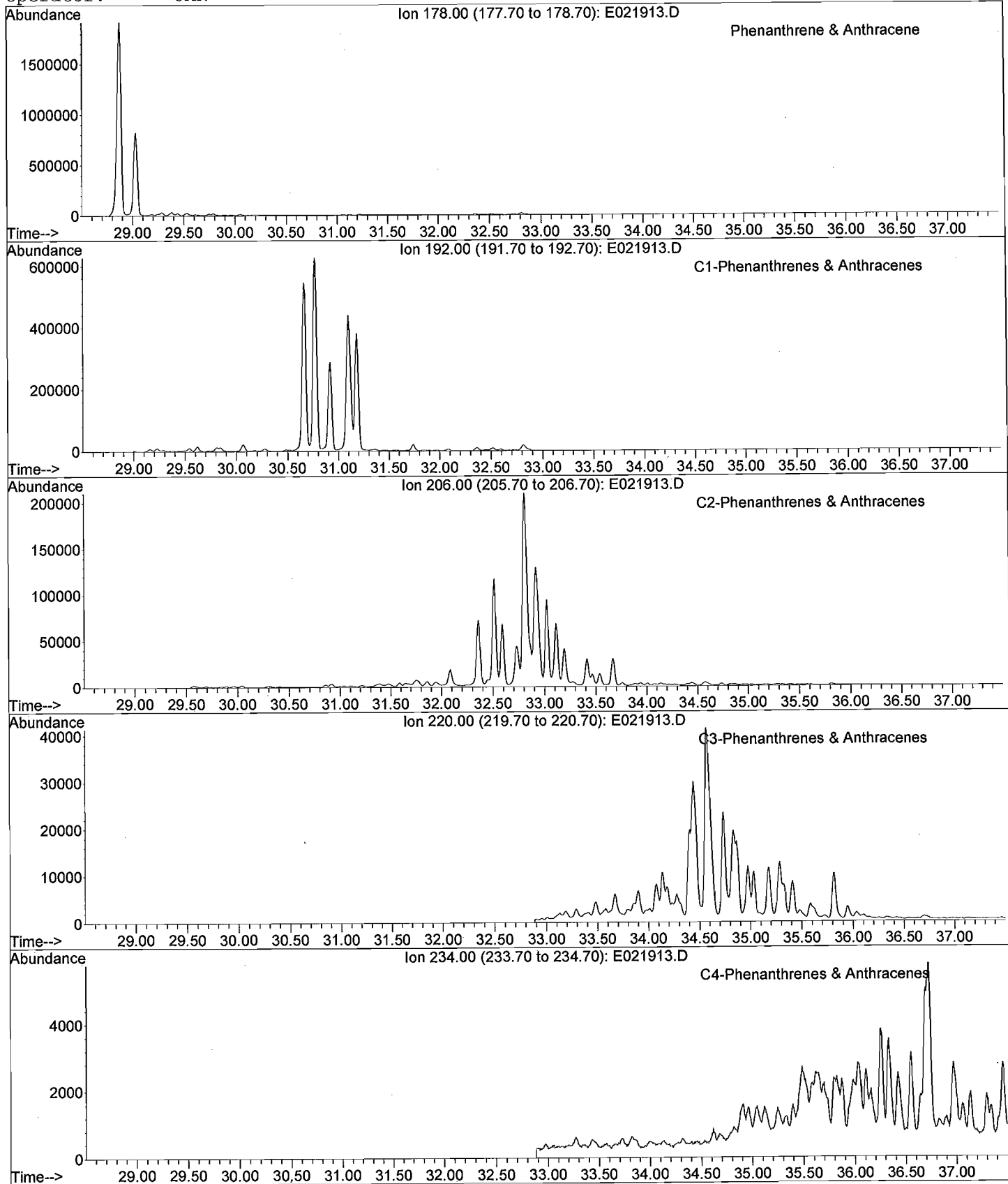
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



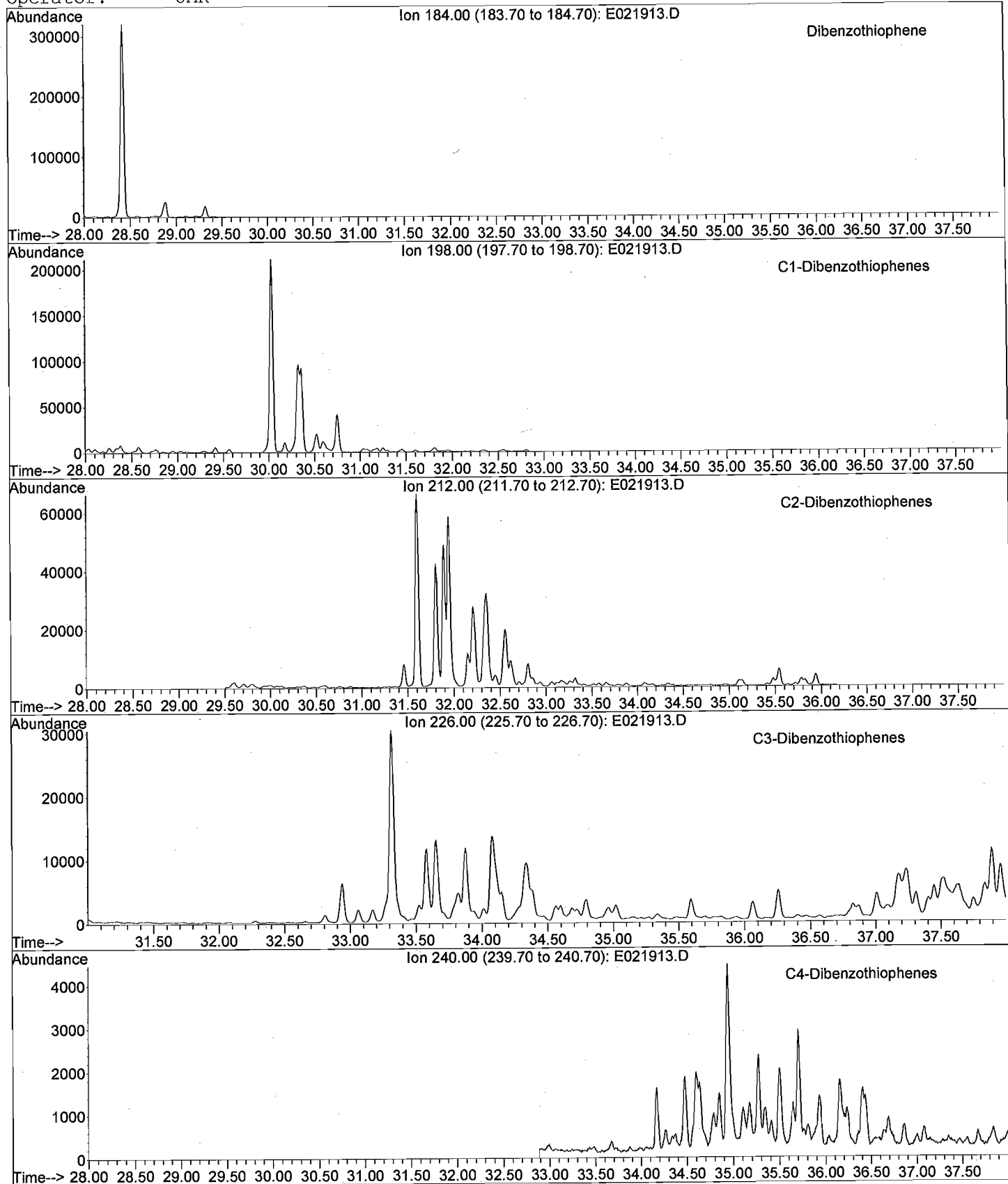
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



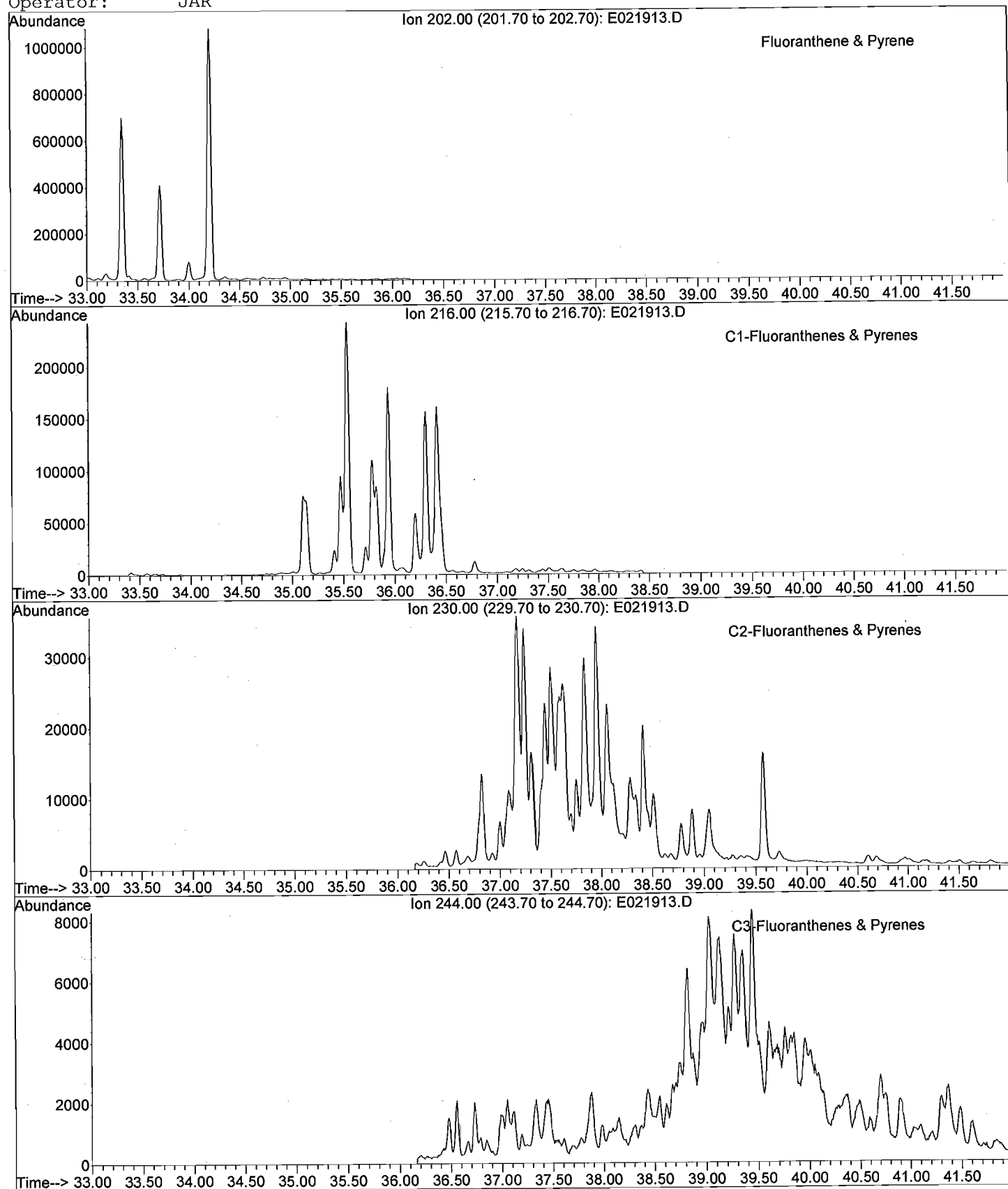
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Misc Info: 0802315-002D - 10X
Operator: JAR



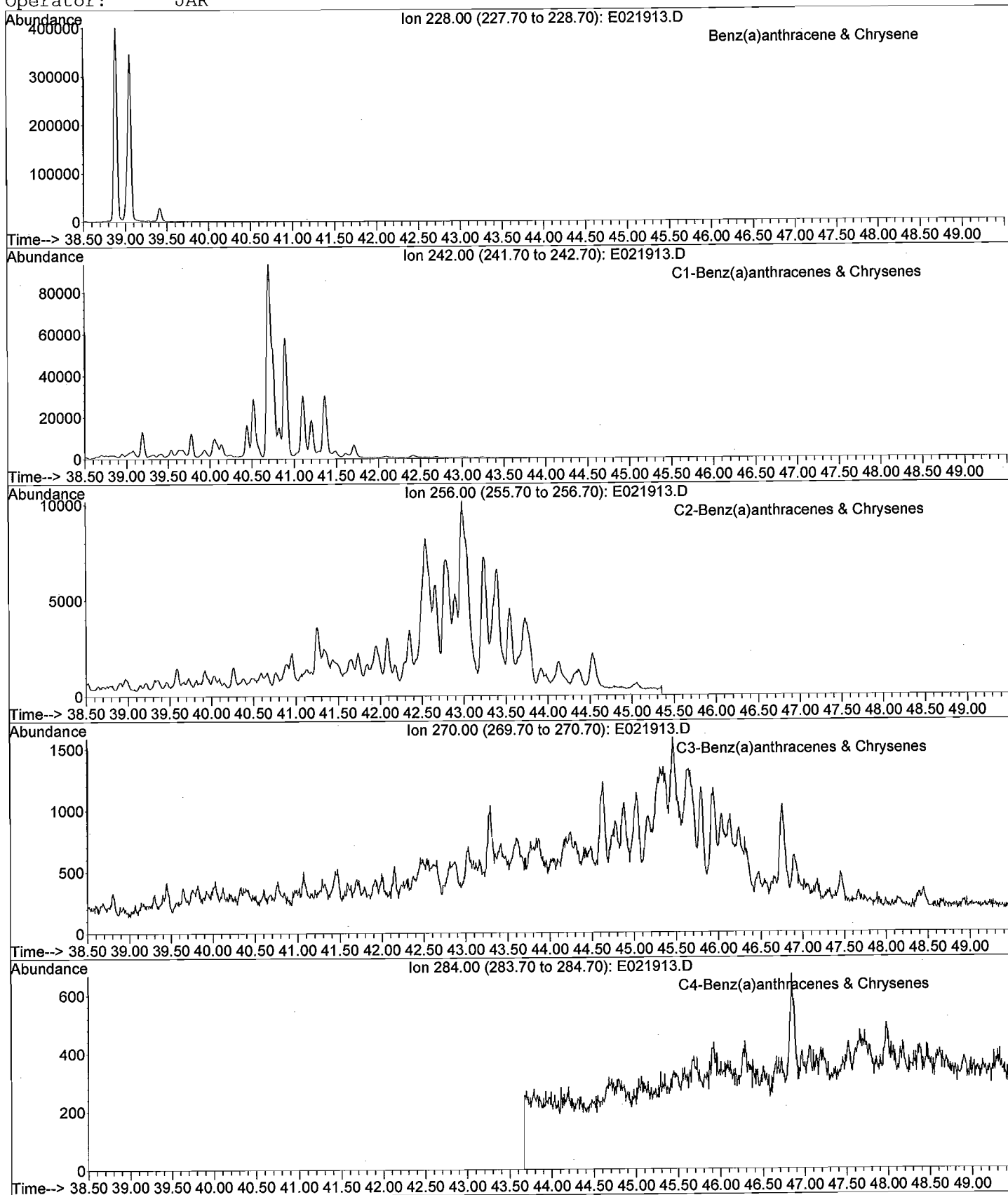
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



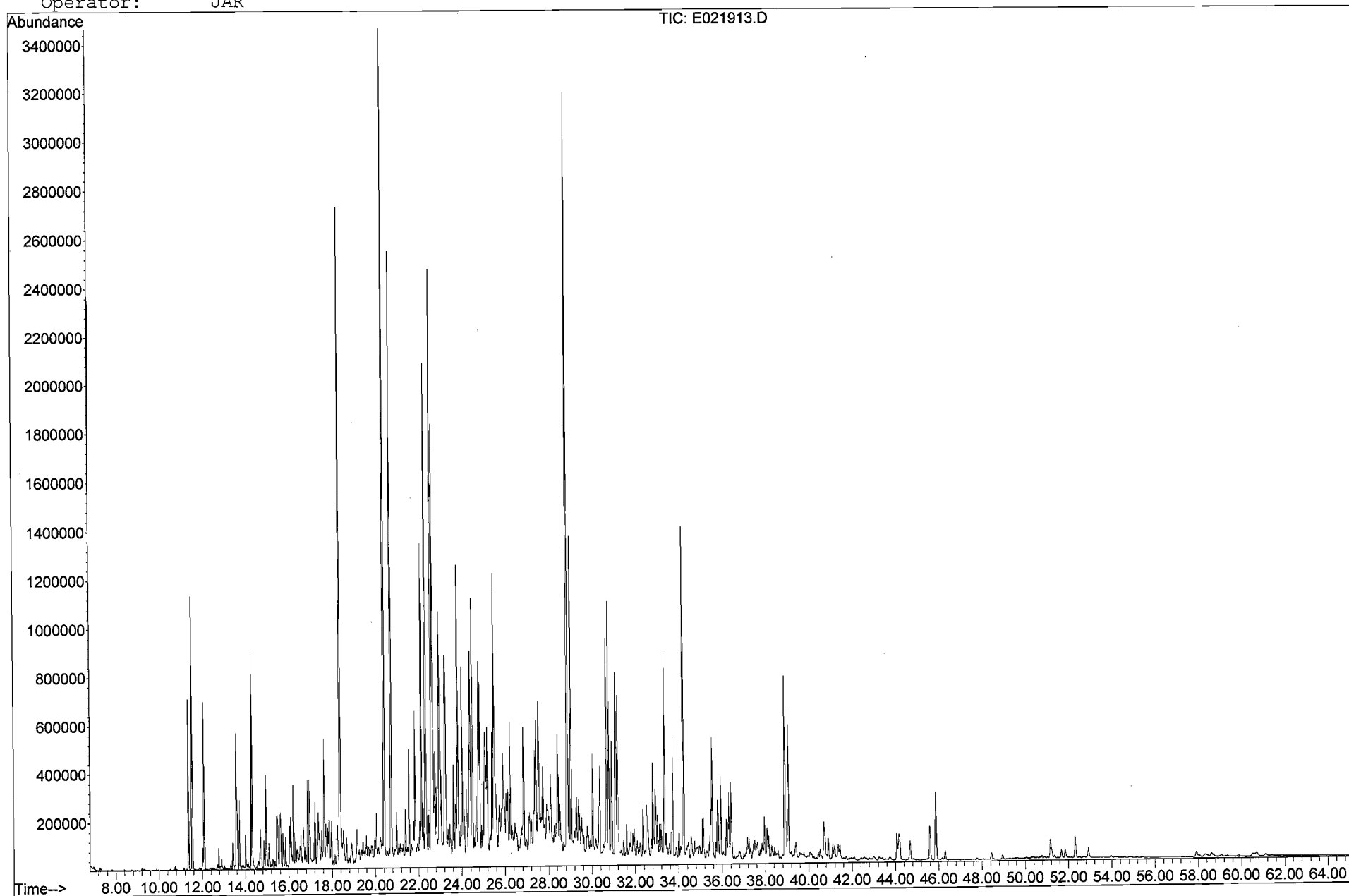
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Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR



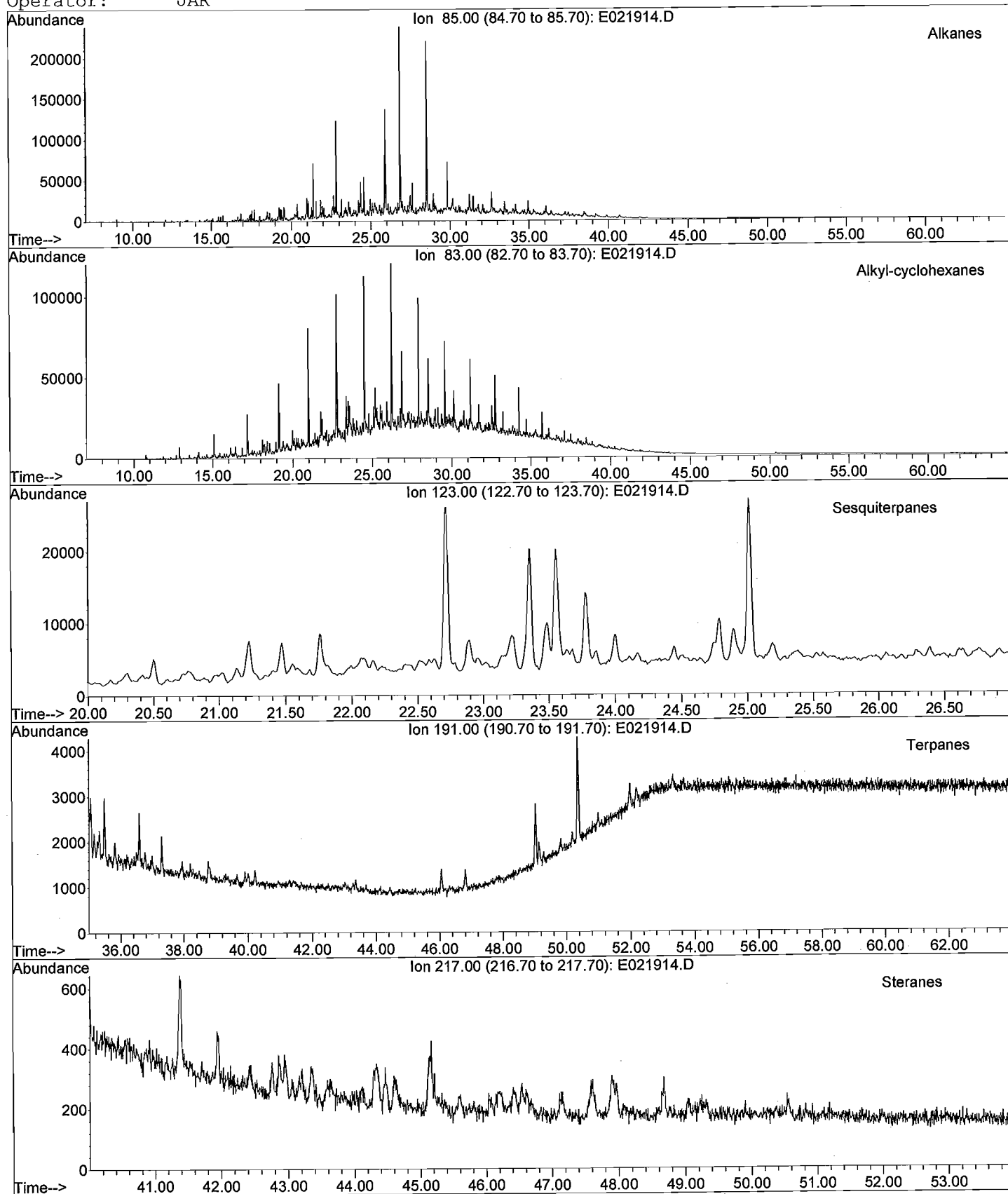
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Sample Name: HC080209-02-D
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Operator: JAR



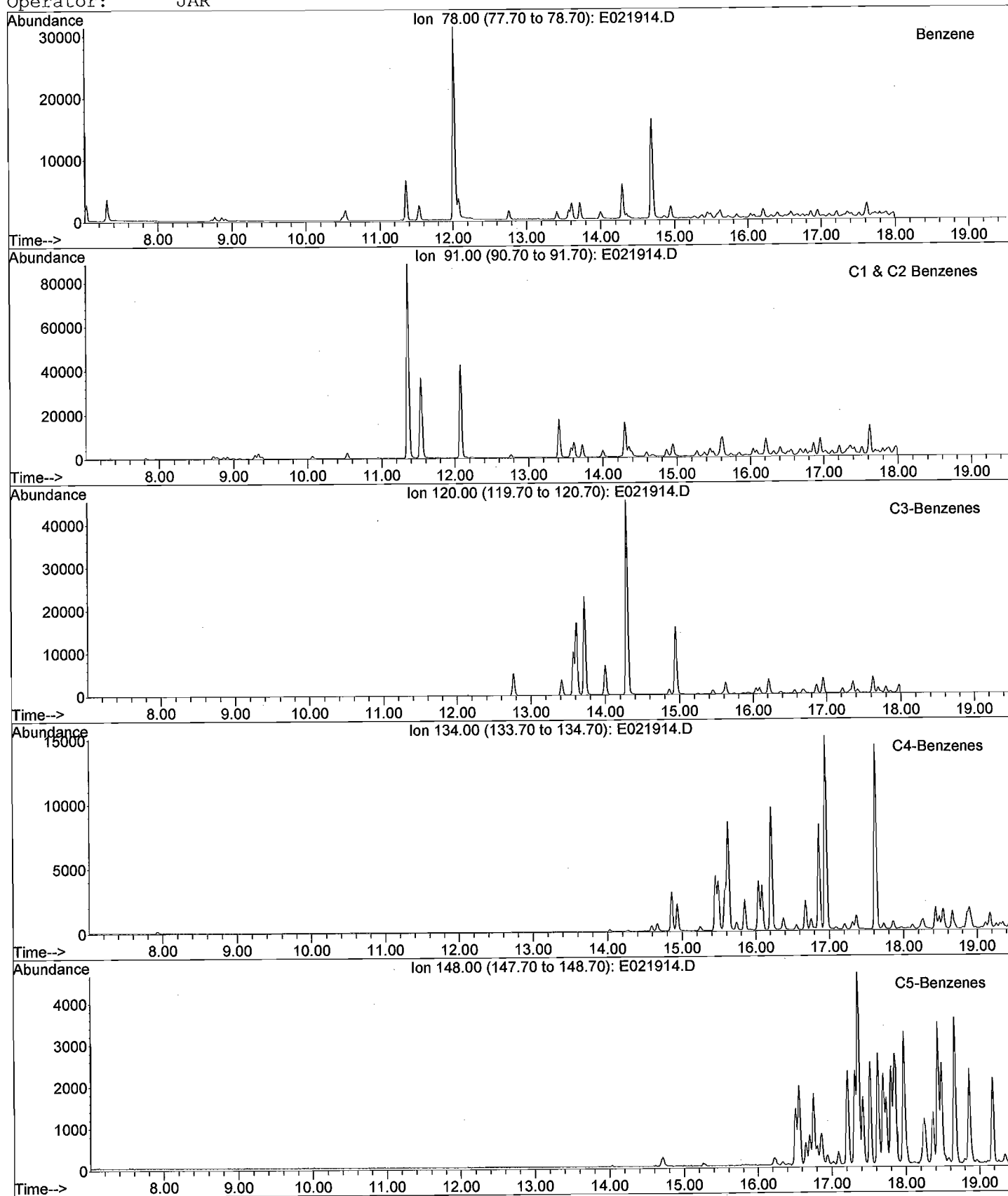
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Misc Info: 0802315-003D - 10X
Operator: JAR



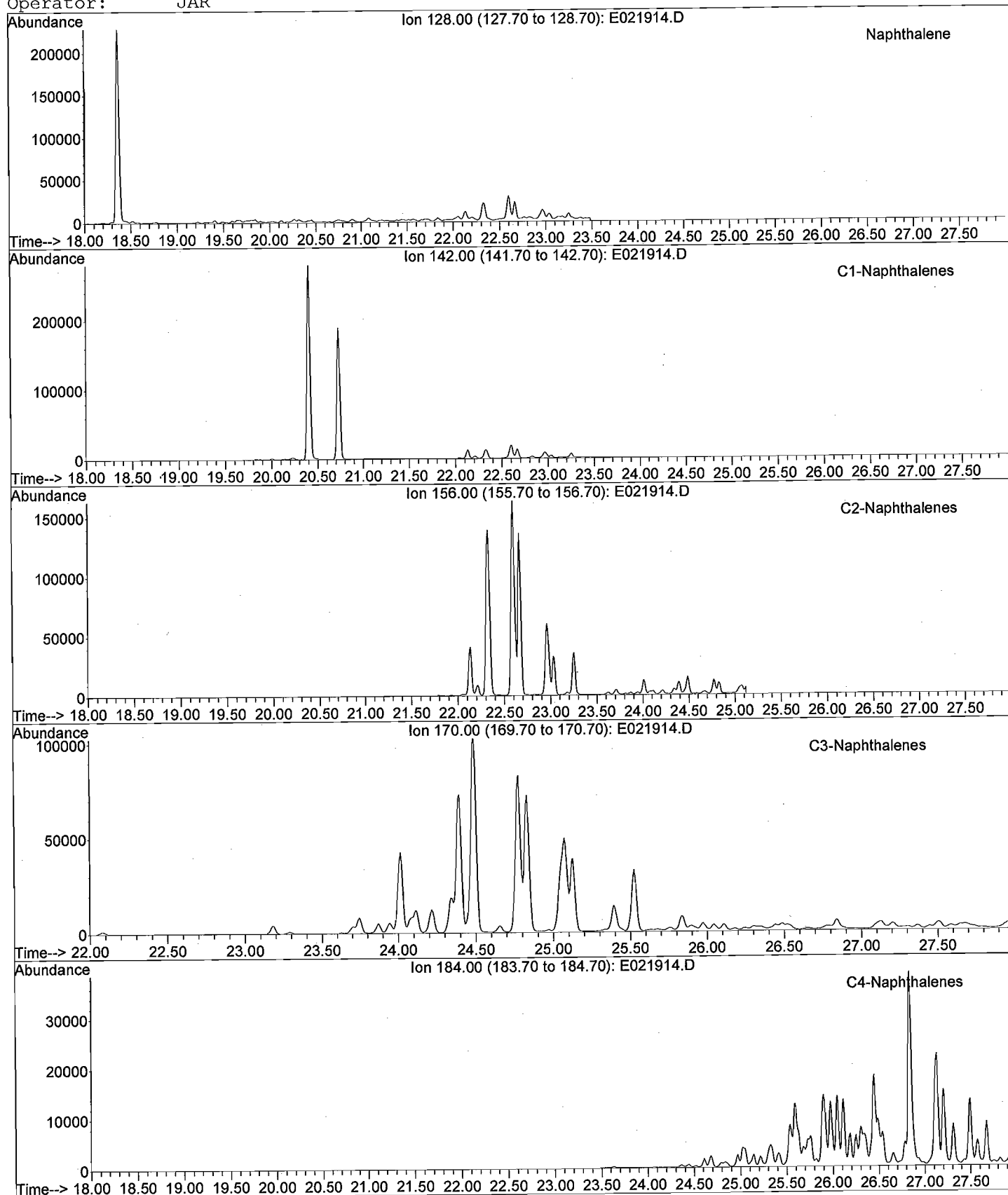
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



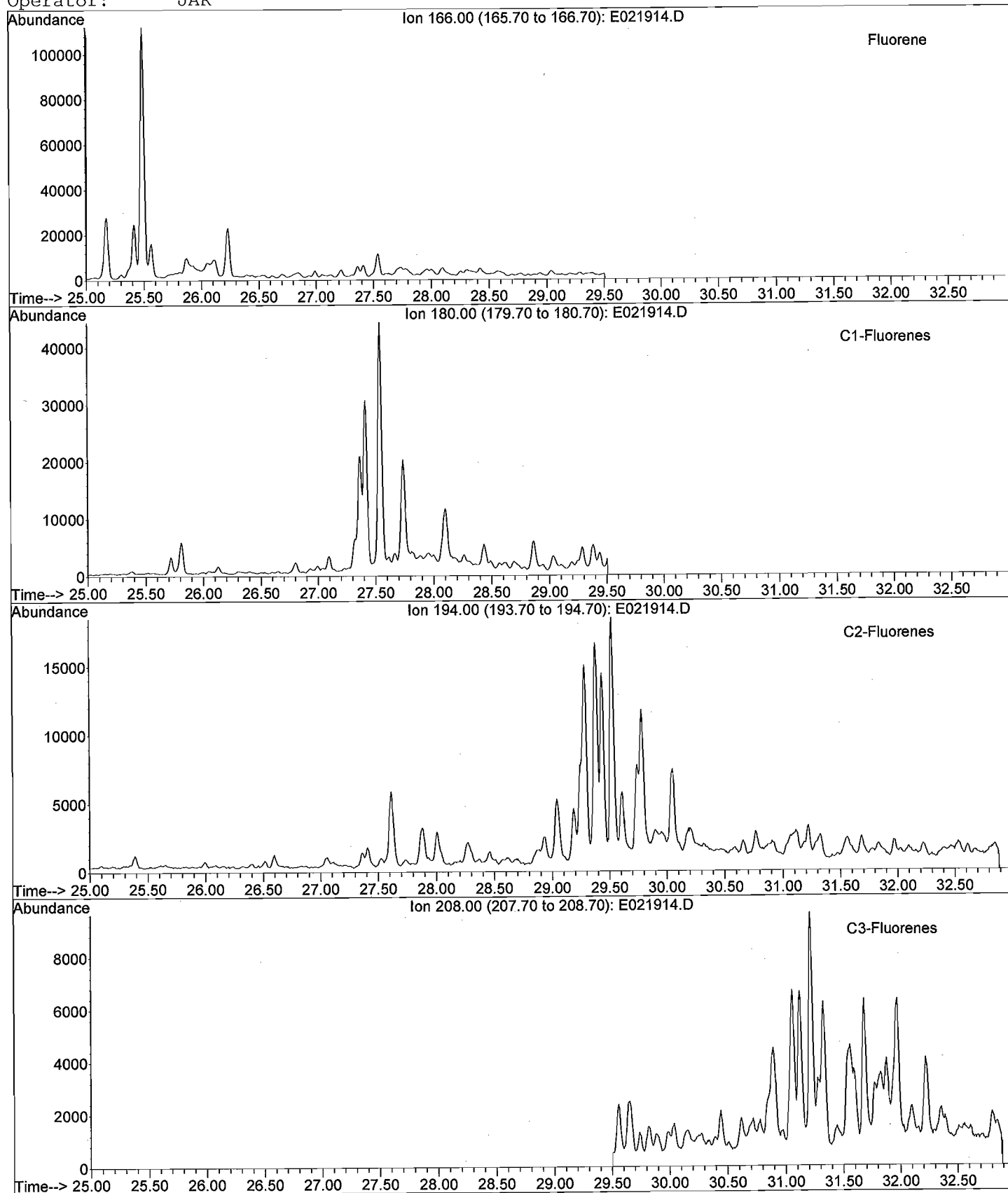
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



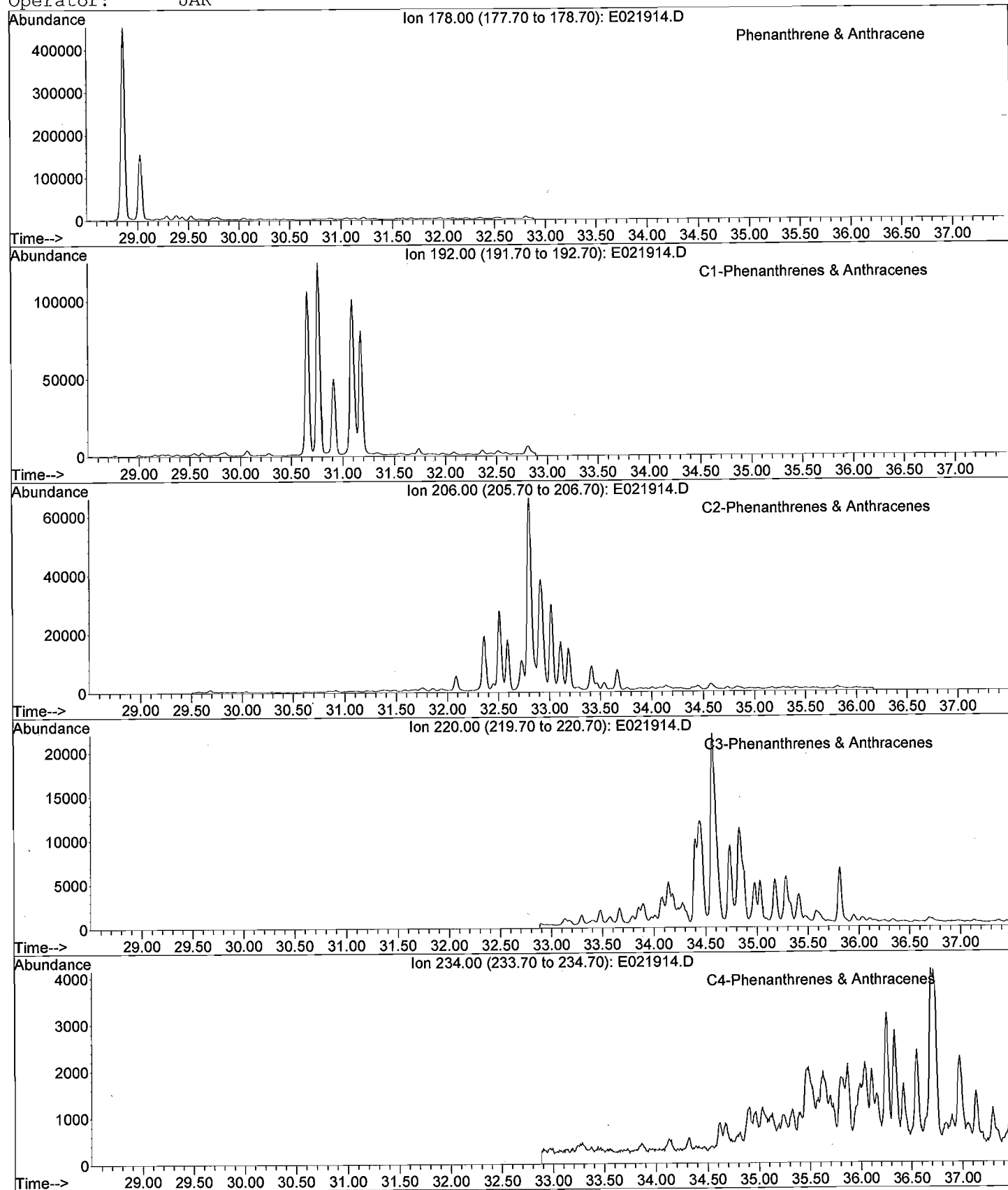
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



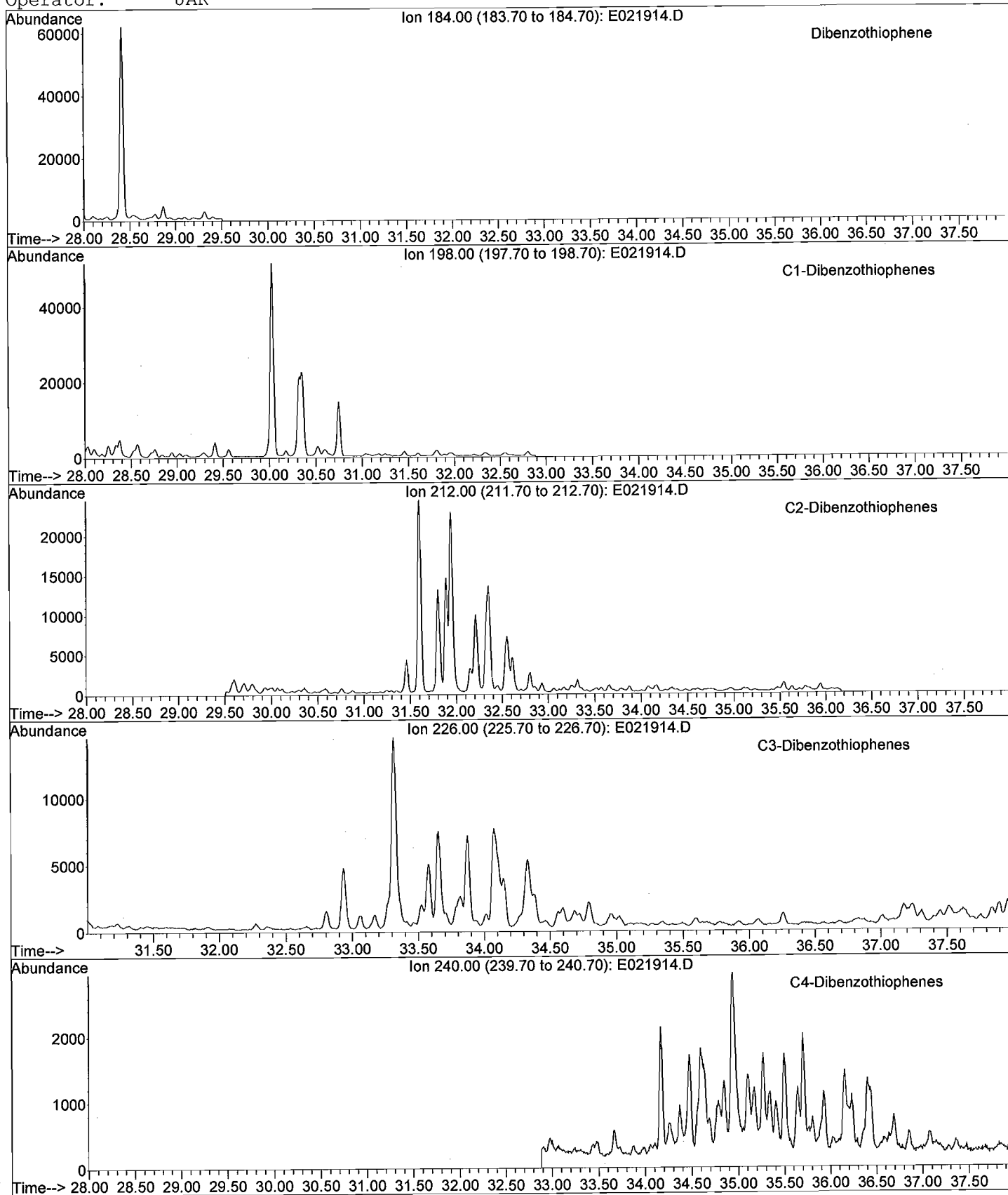
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



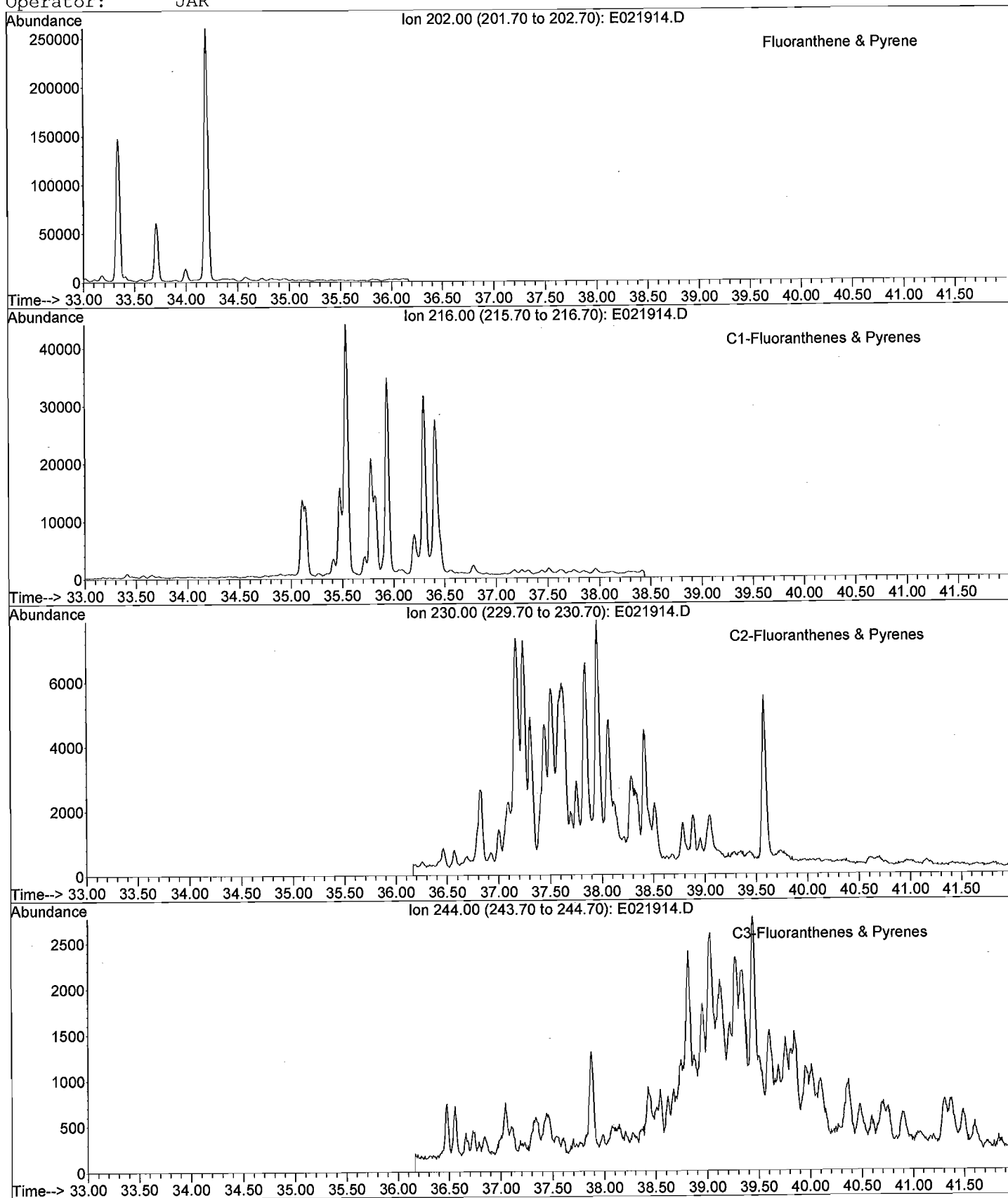
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



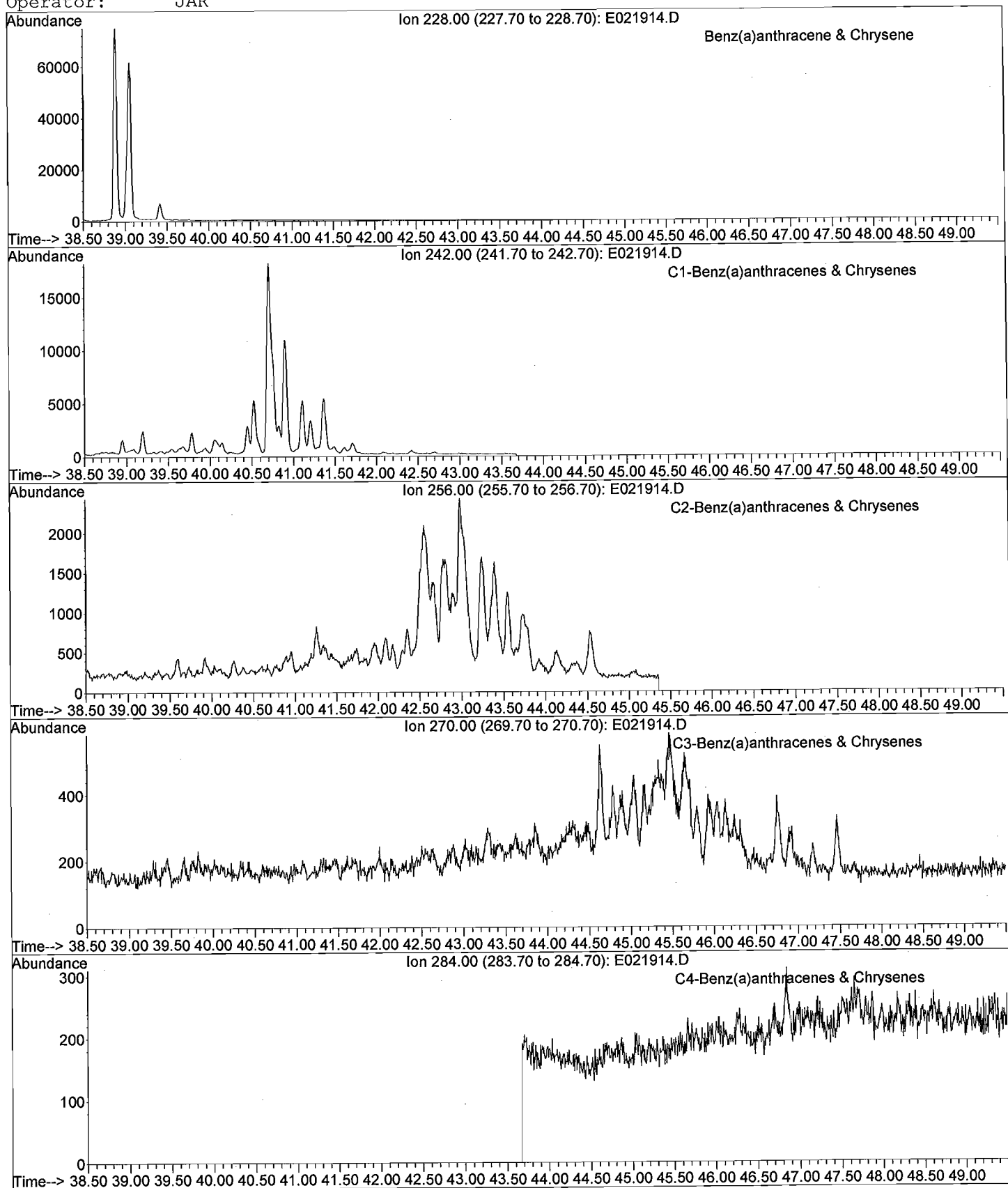
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



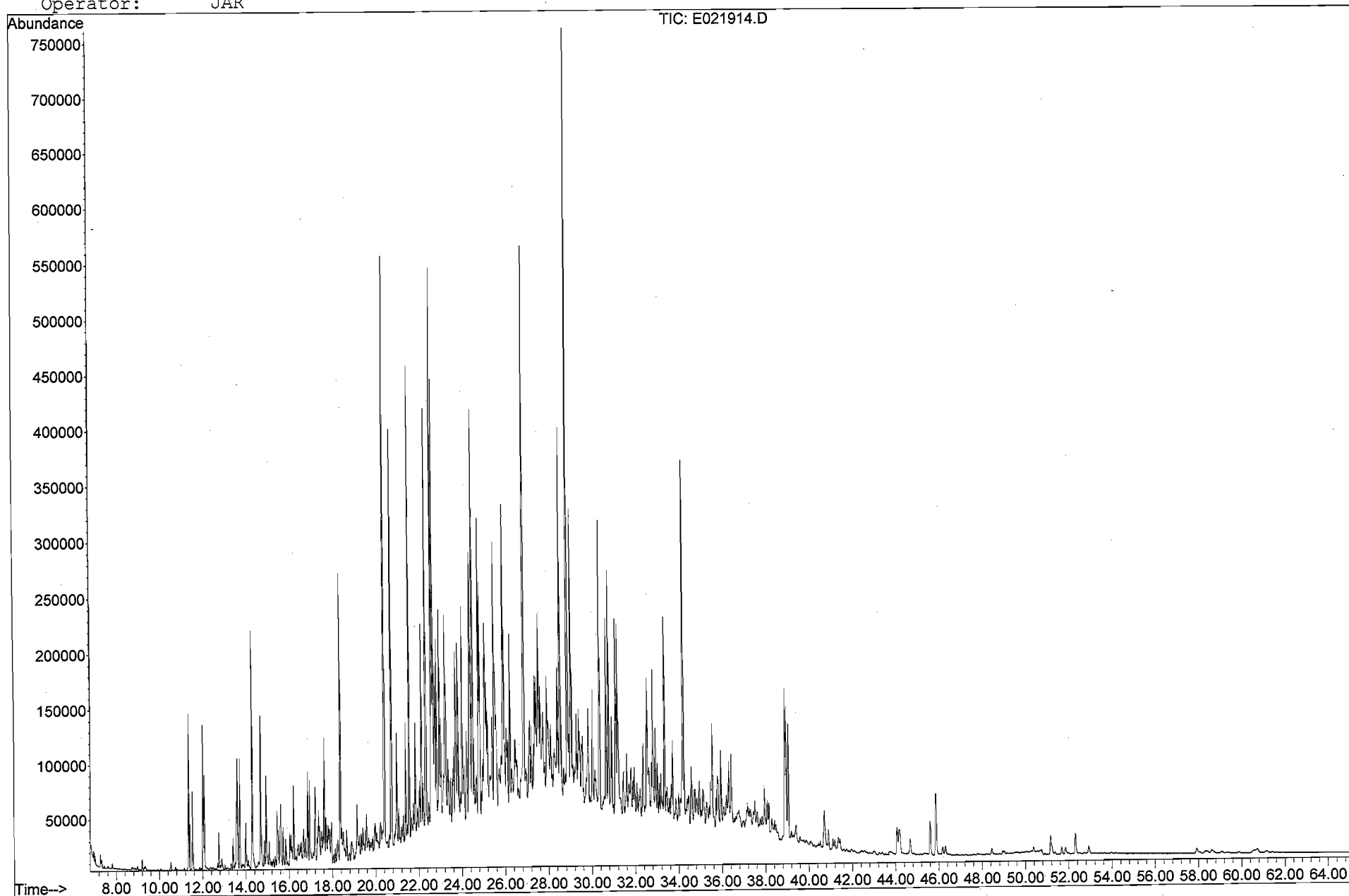
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



GC/MS TOTAL ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D
Date Acquired: 20 Feb 2008 4:56 am
Method File: 4008SIMT.M
Sample Name: HC080209-03-D
Misc Info: 0802315-003D - 10X
Operator: JAR



Appendix O

META Environmental Forensic Report

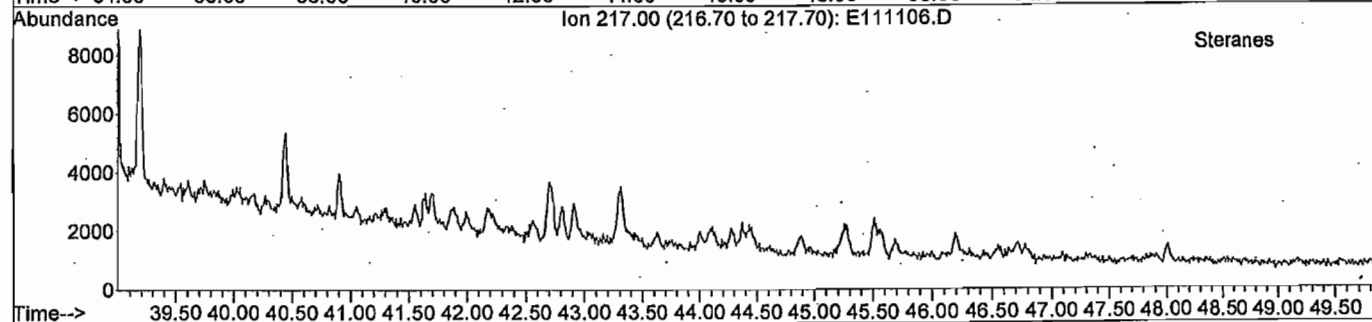
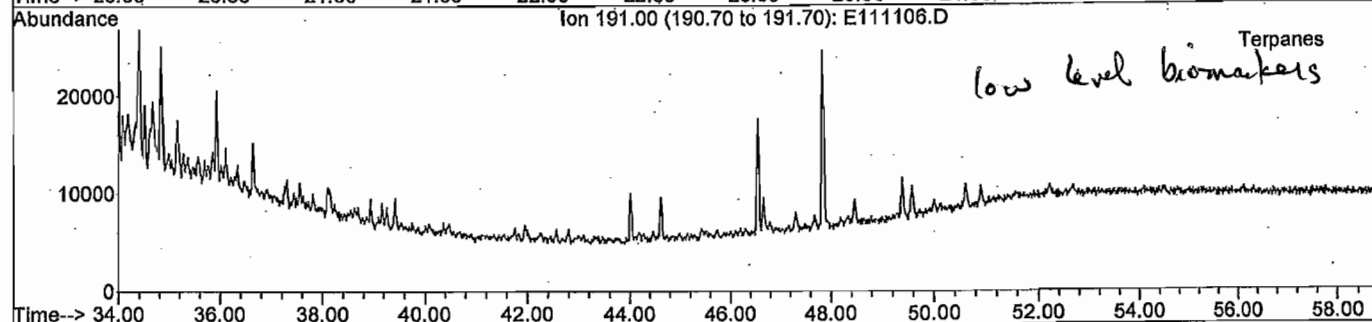
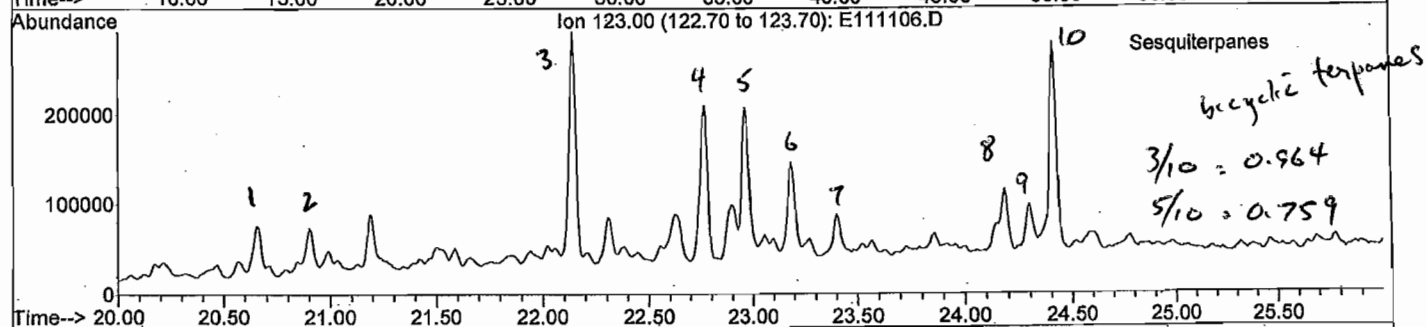
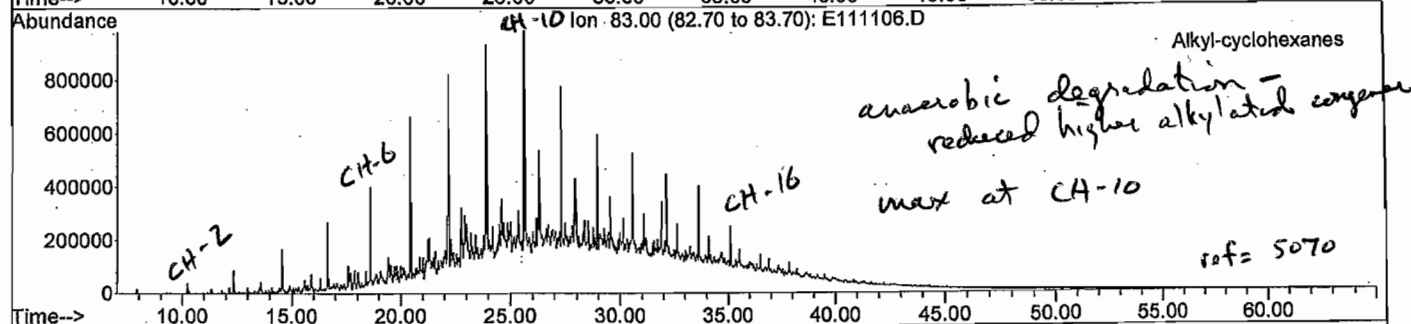
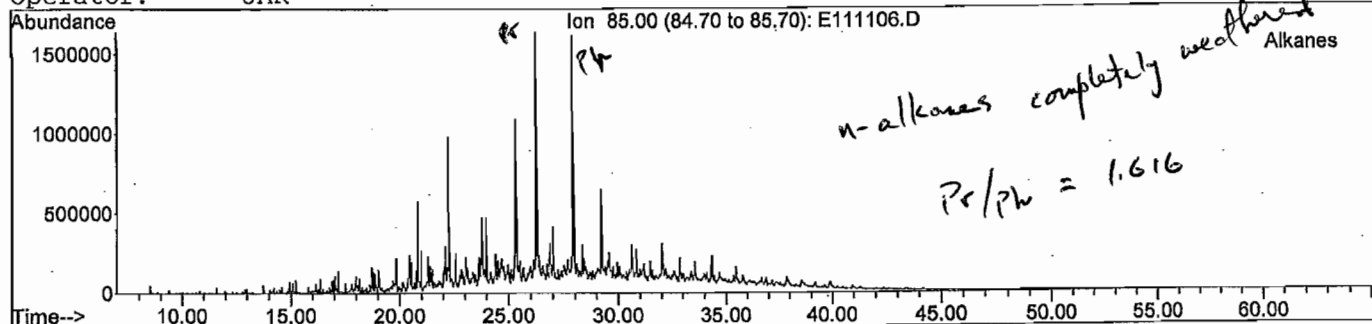
Distillate Fuel Oil Patterns

Pattern A

META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E0811111\E111106.D
 Date Acquired: 11 Nov 2008 9:57 pm
 Method File: 4008SIMD.M
 Sample Name: HC081104-02
 Misc Info: HISB - 110/20-25
 Operator: JAR

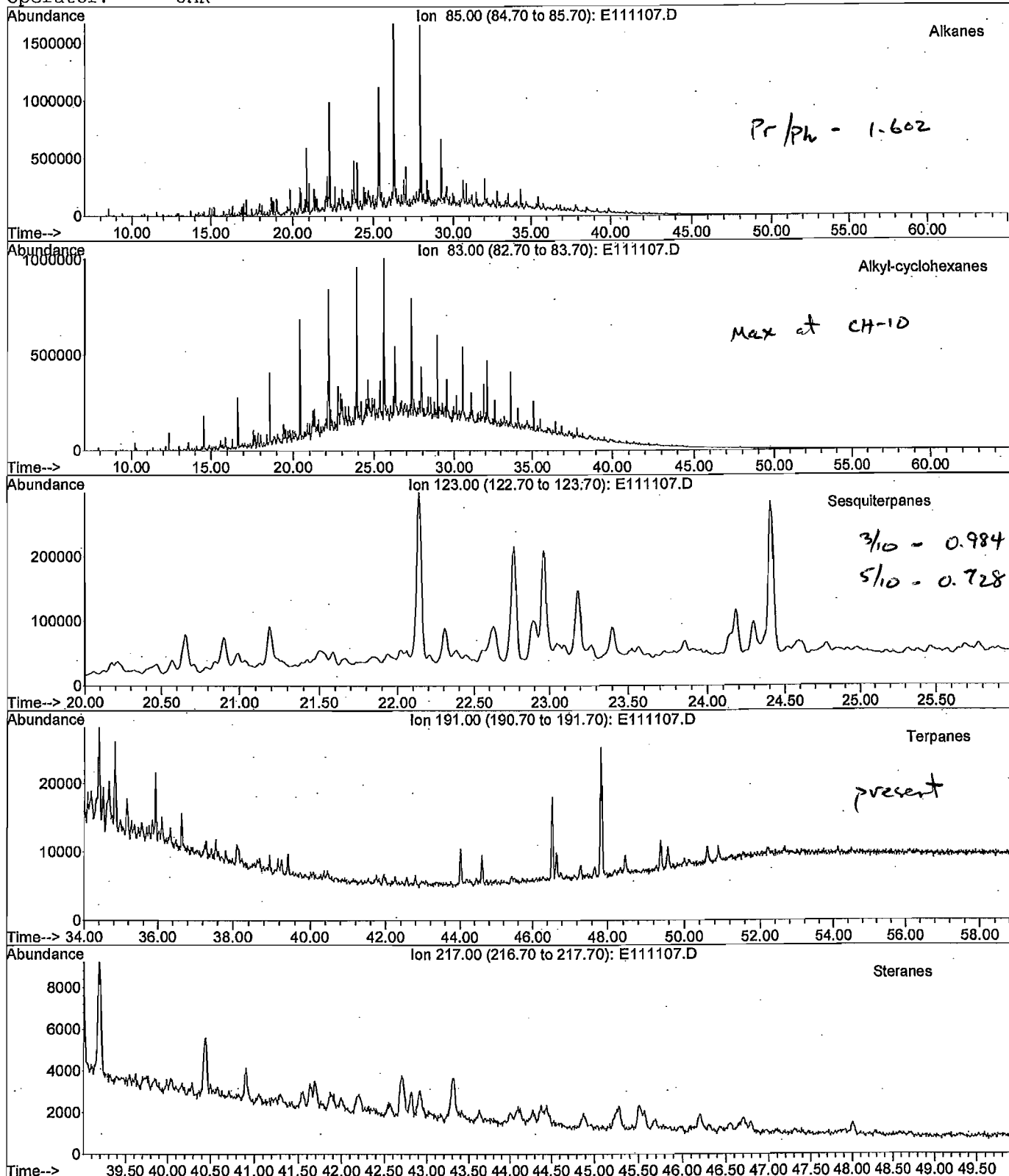


META Environmental, Inc.

Pattern A

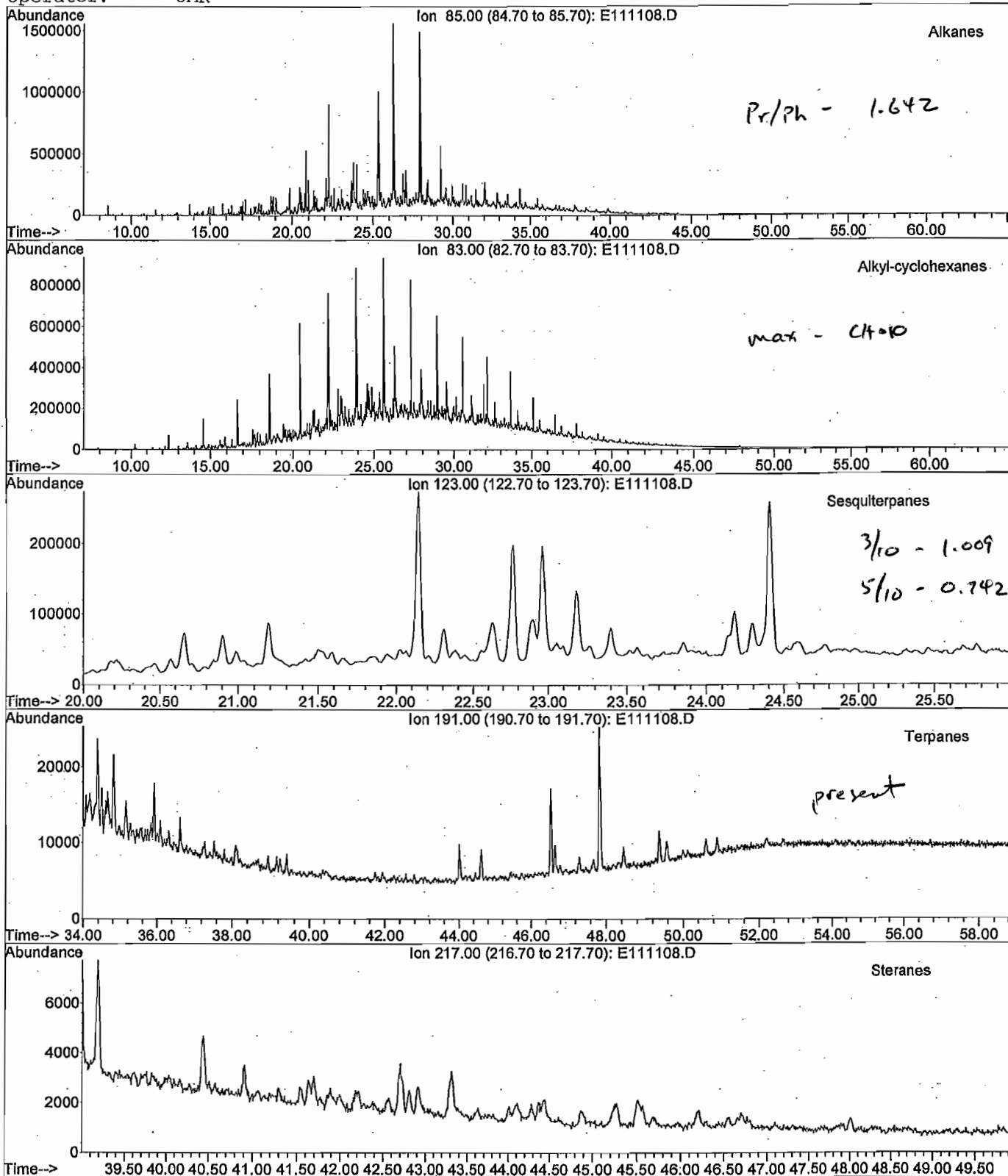
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111107.D
Date Acquired: 11 Nov 2008 11:12 pm
Method File: 4008SIMD.M
Sample Name: HC081104-02DUP
Misc Info: Duplicate of HISB - 110/20-25
Operator: JAR



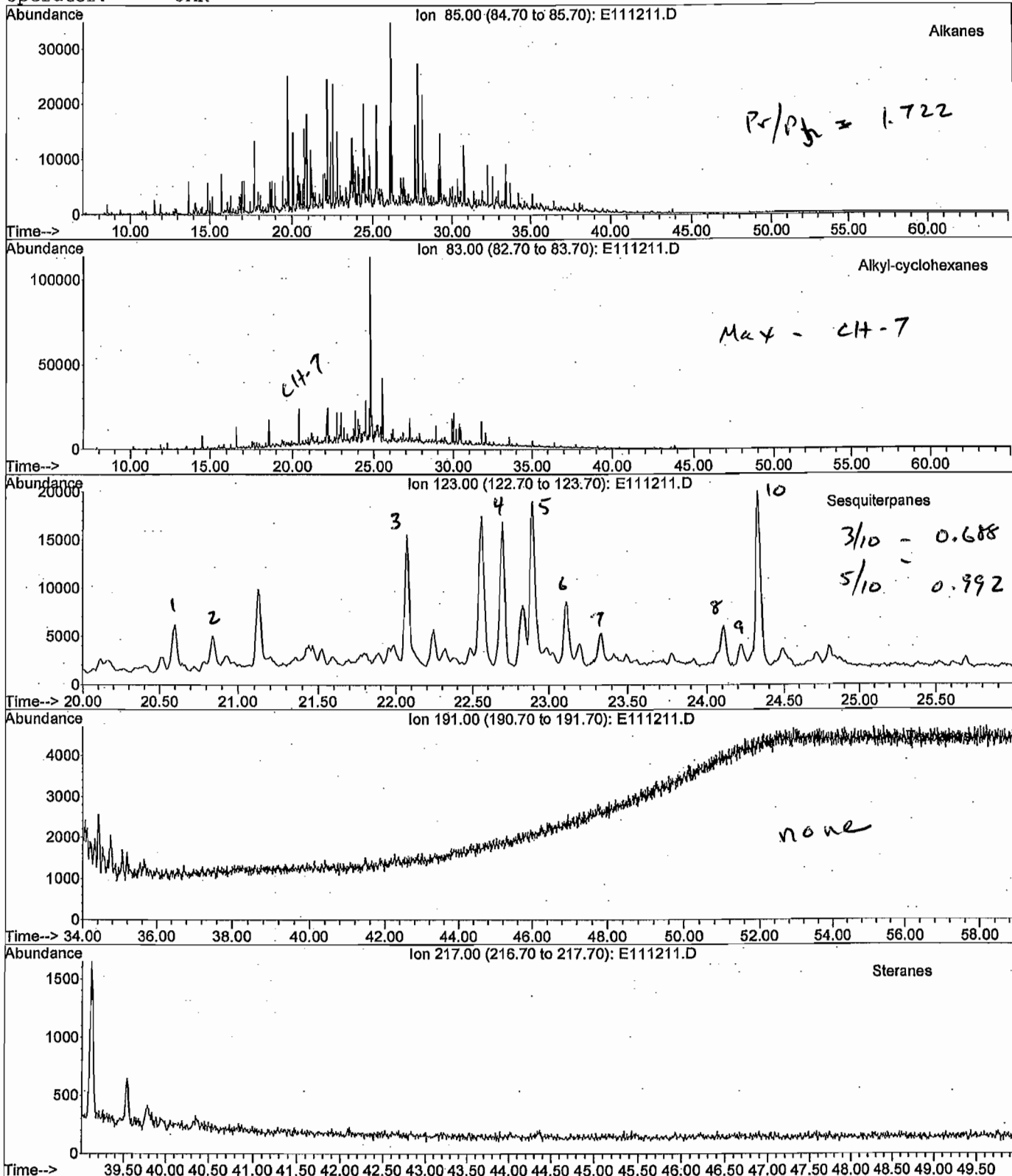
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111108.D
 Date Acquired: 12 Nov 2008 12:27 am
 Method File: 4008SIMD.M
 Sample Name: HC081104-03
 Misc Info: HISB - 110/25-29
 Operator: JAR



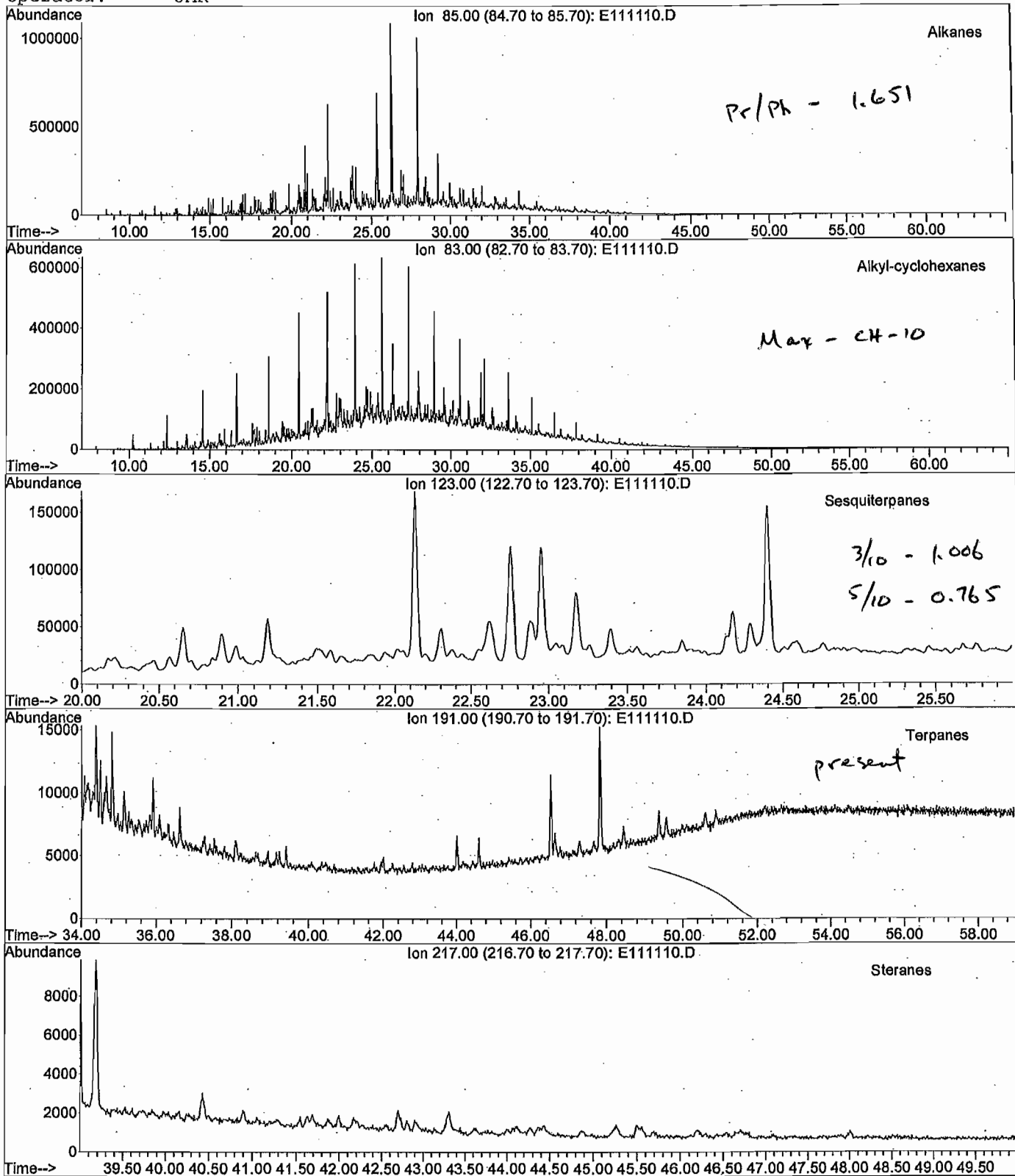
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111211.D
 Date Acquired: 13 Nov 2008 3:42 am
 Method File: 4008SIMD.M
 Sample Name: HC081104-04-D
 Misc Info: HISB - 110/29-30 - 10X
 Operator: JAR



GC/MS EXTRACTED ION CHROMATOGRAM

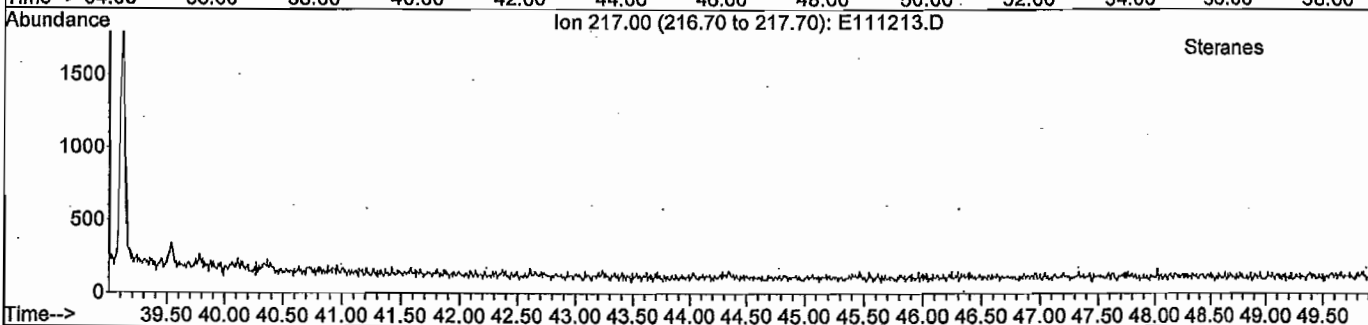
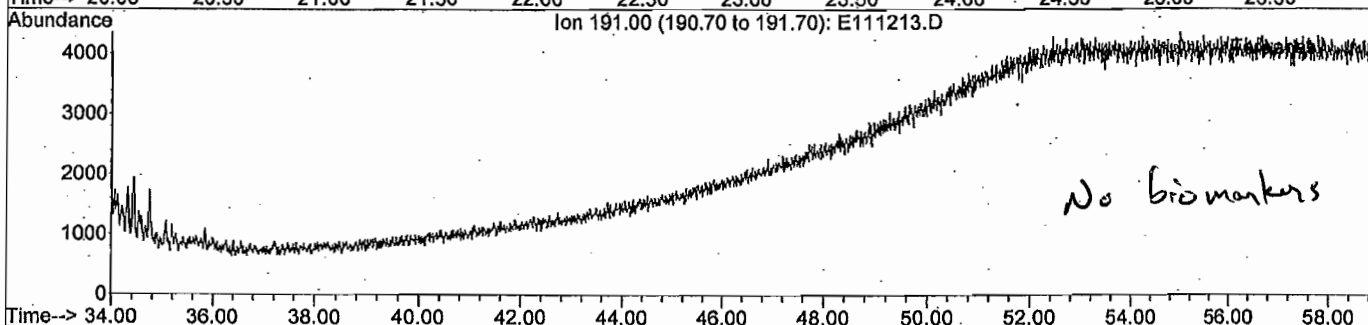
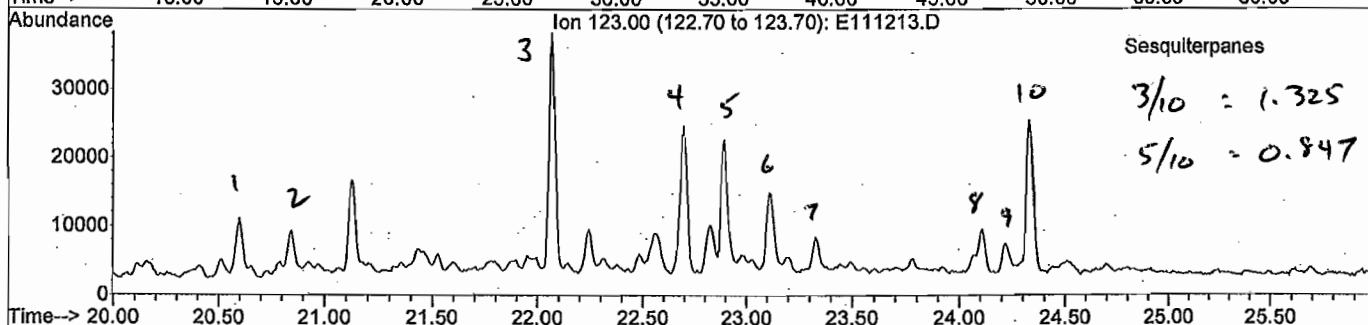
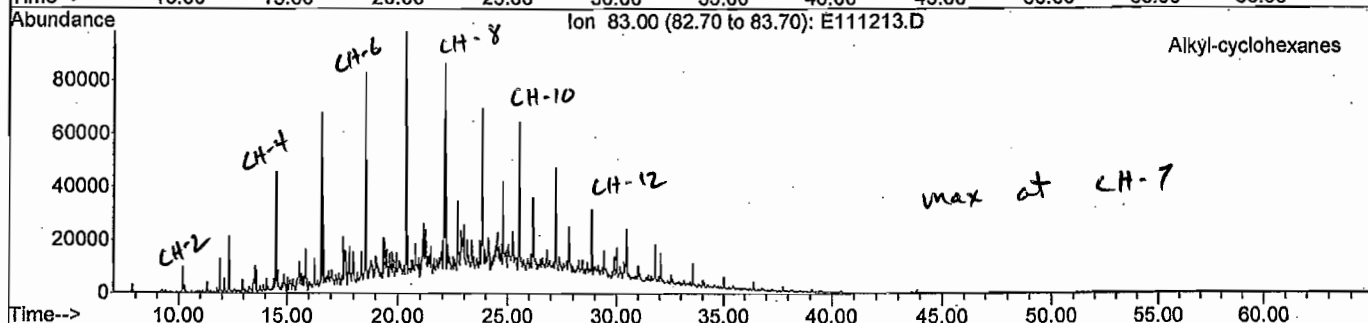
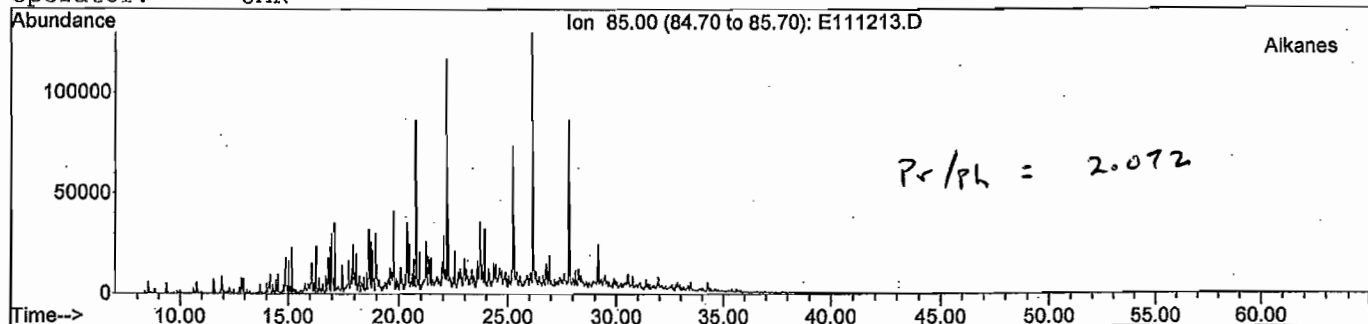
File: J:\1\DATA\E081111\E111110.D
Date Acquired: 12 Nov 2008 2:57 am
Method File: 4008SIMD.M
Sample Name: HC081104-05
Misc Info: HISB - 111/20-25
Operator: JAR



Pattern C

GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111213.D
 Date Acquired: 13 Nov 2008 6:12 am
 Method File: 4008SIMD.M
 Sample Name: HC081104-06-D
 Misc Info: HISB - 111/30-35 - 10X
 Operator: JAR

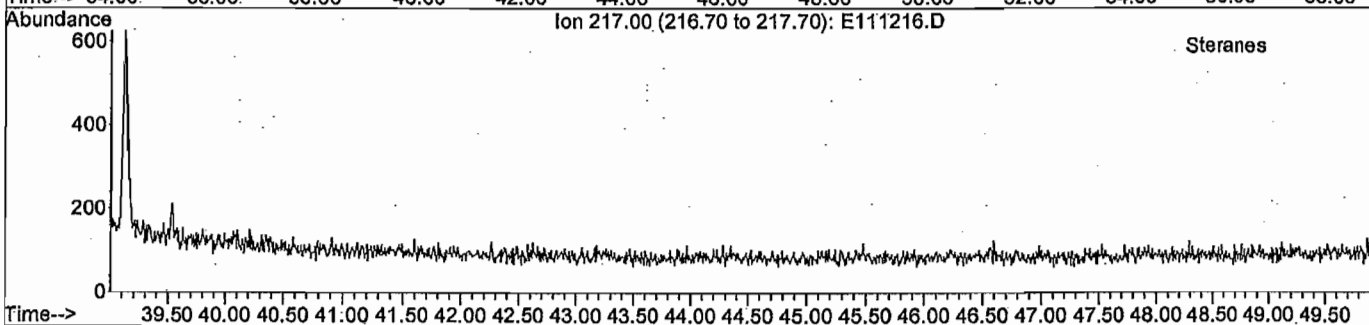
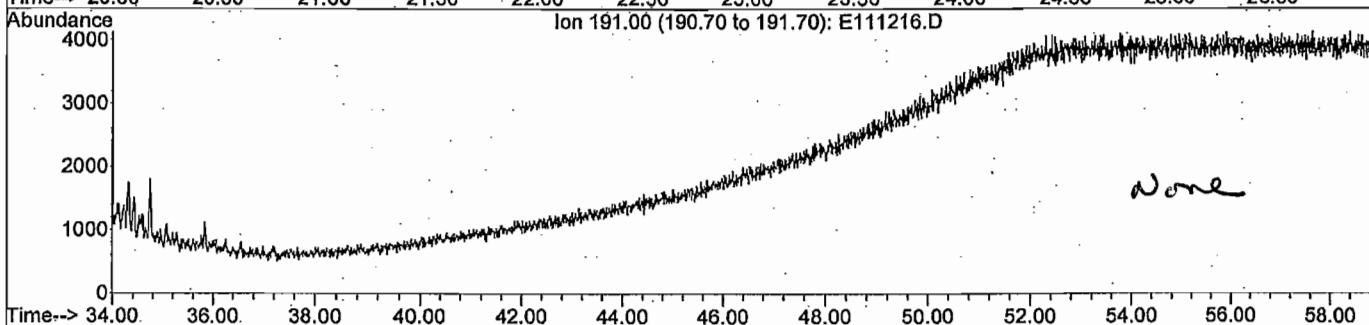
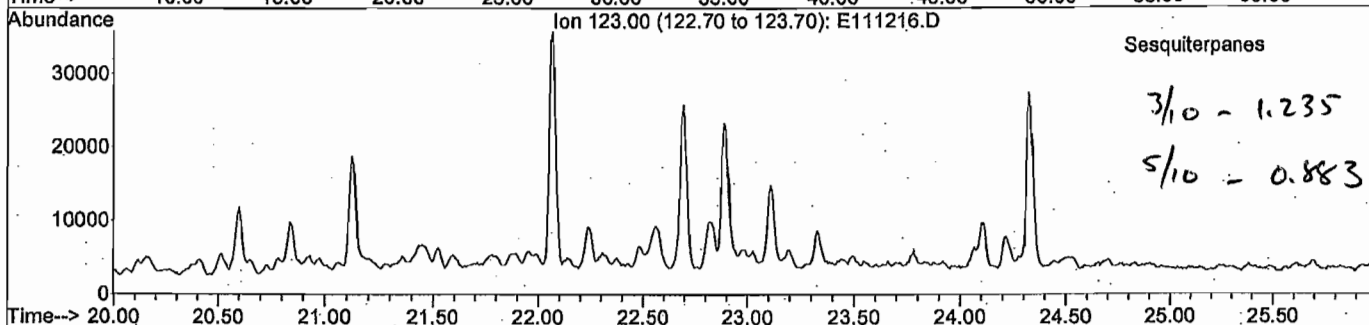
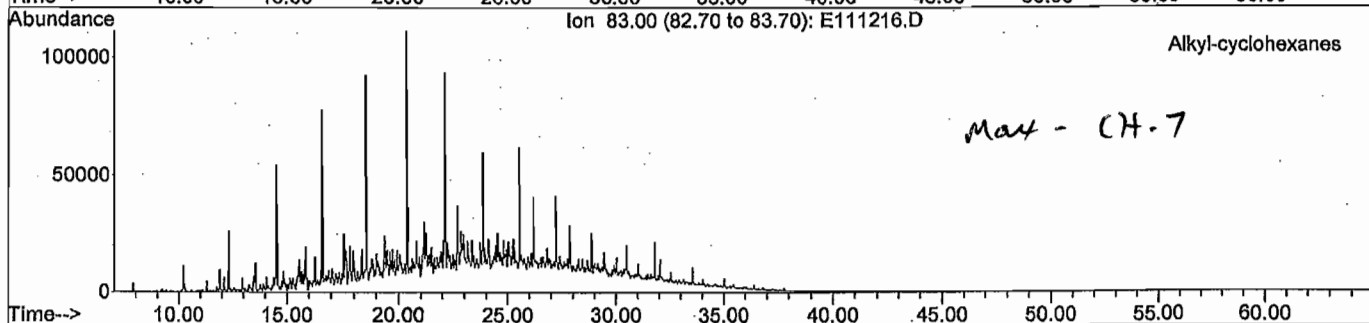
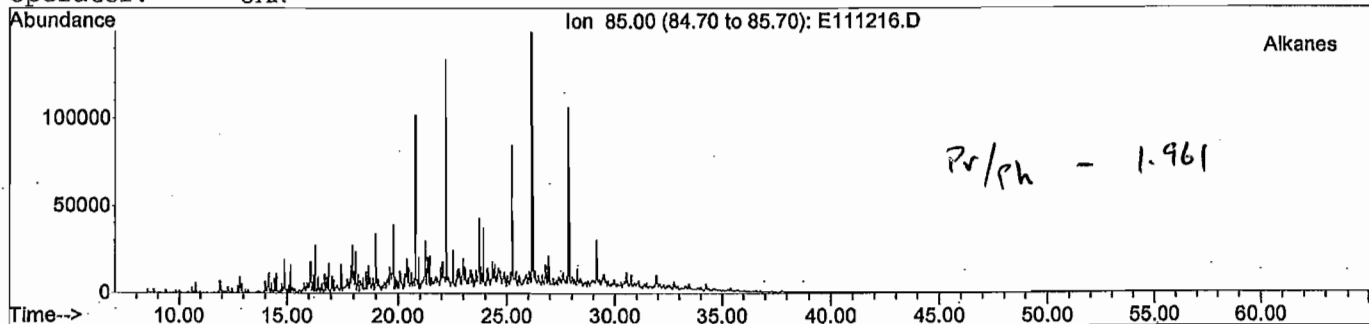


META Environmental, Inc.

GC/MS EXTRACTED ION CHROMATOGRAM

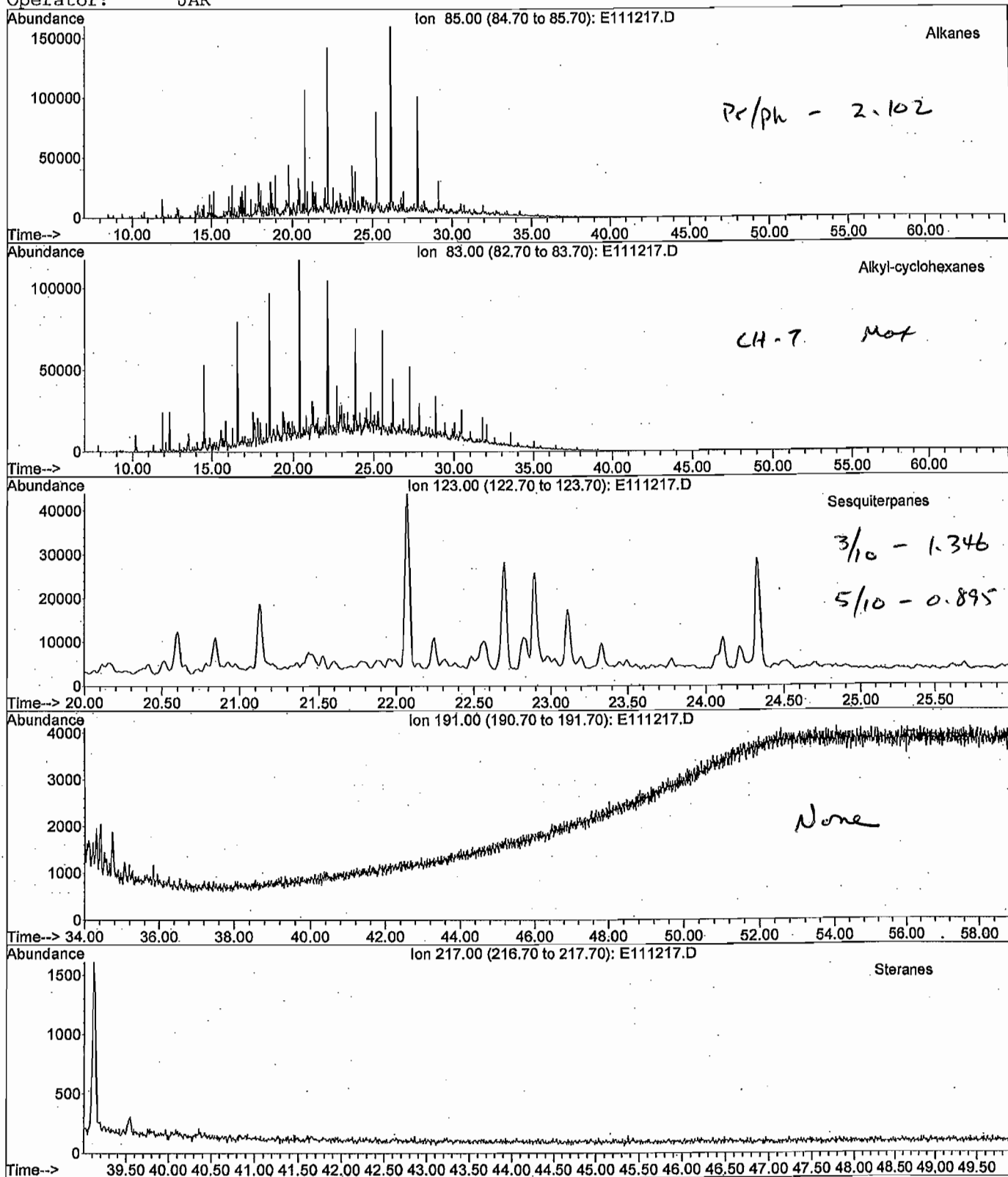
Pattern C

File: J:\1\DATA\E081112\E111216.D
Date Acquired: 13 Nov 2008 9:55 am
Method File: 4008SIMD.M
Sample Name: HC081104-07-D
Misc Info: HISB - 112/25-30 - 10X
Operator: JAR



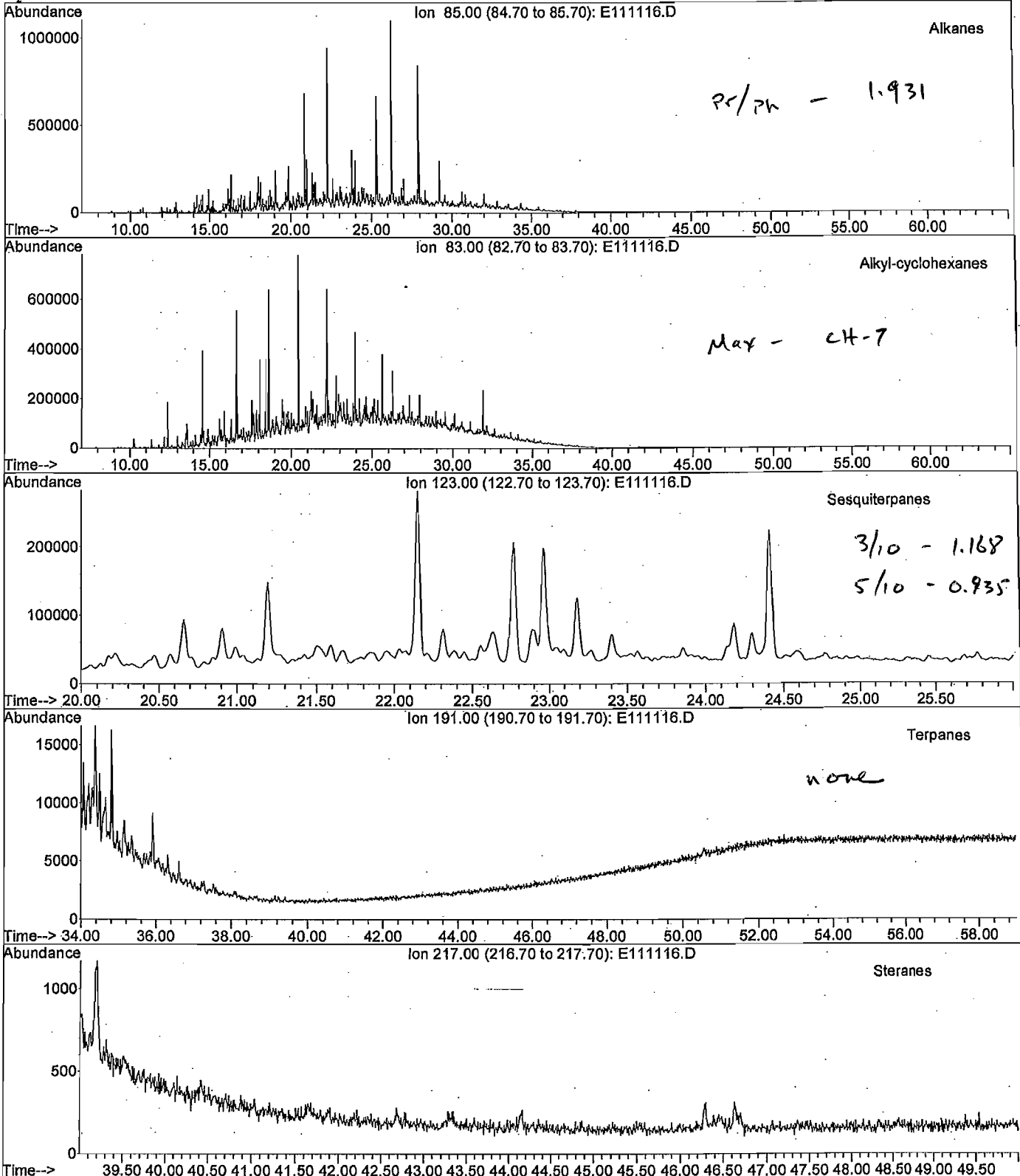
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111217.D
Date Acquired: 13 Nov 2008 11:10 am
Method File: 4008SIMD.M
Sample Name: HC081104-08-D
Misc Info: HISB - 112/32-35 - 10X
Operator: JAR



GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081111\E111116.D
 Date Acquired: 12 Nov 2008 10:25 am
 Method File: 4008SIMD.M
 Sample Name: HC081104-09
 Misc Info: HISB - 113/25-30
 Operator: JAR

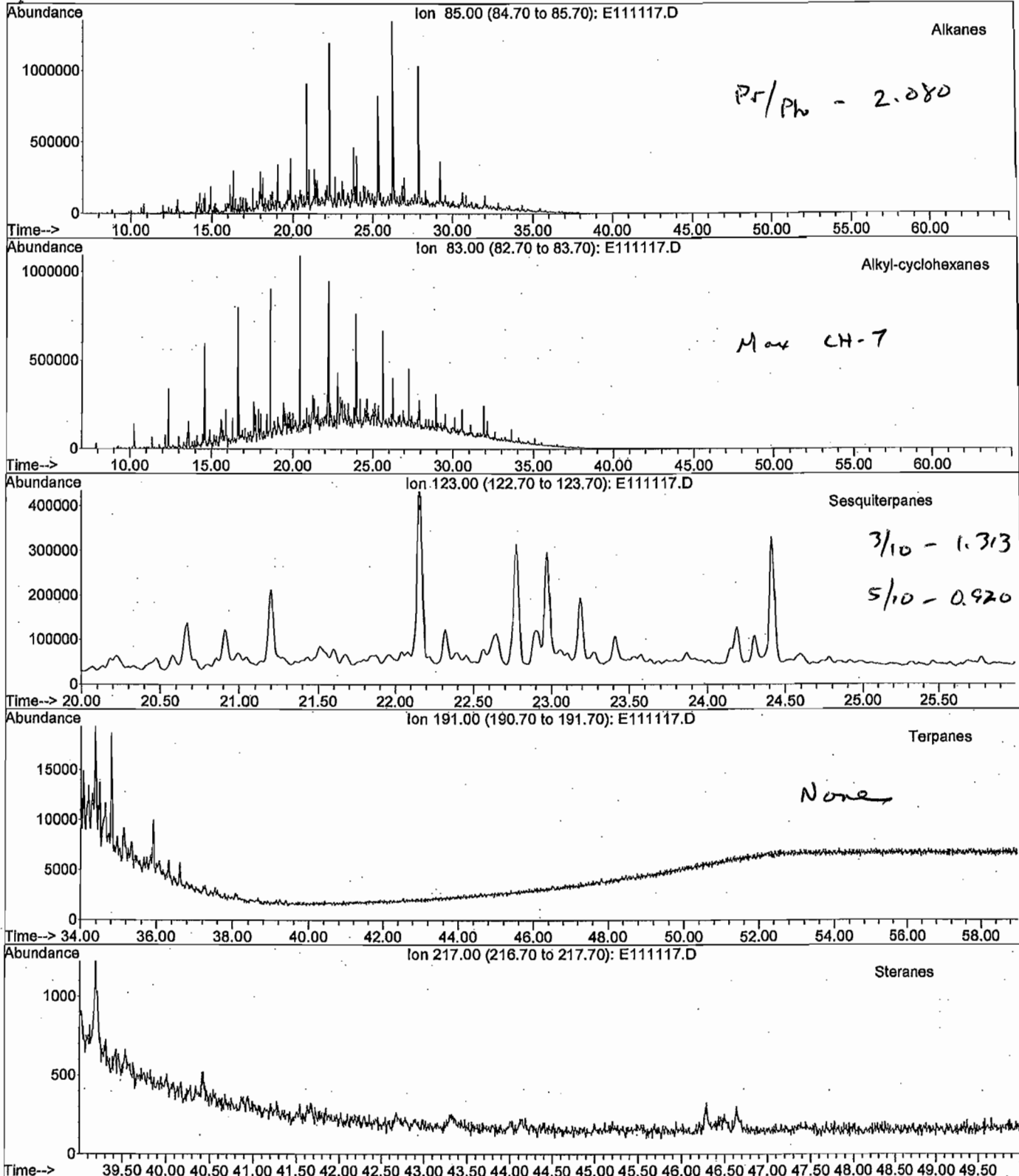


META Environmental, Inc.

Pattern C

GC/MS EXTRACTED ION CHROMATOGRAM

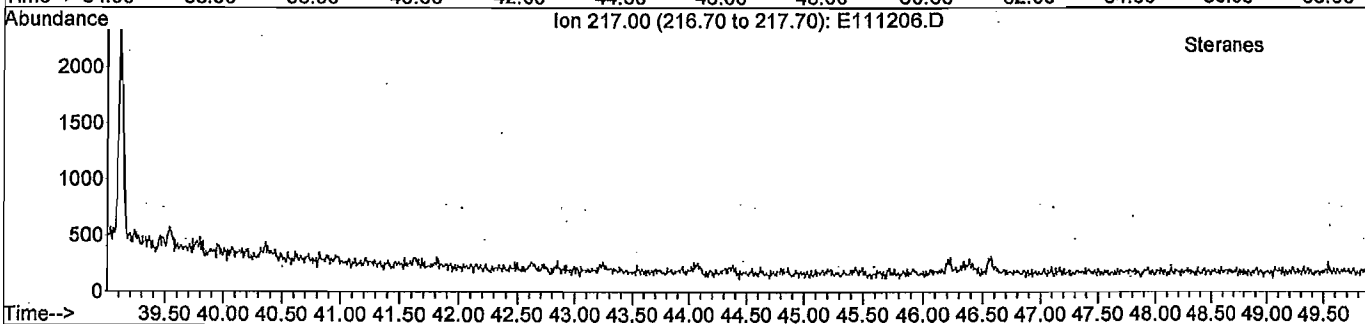
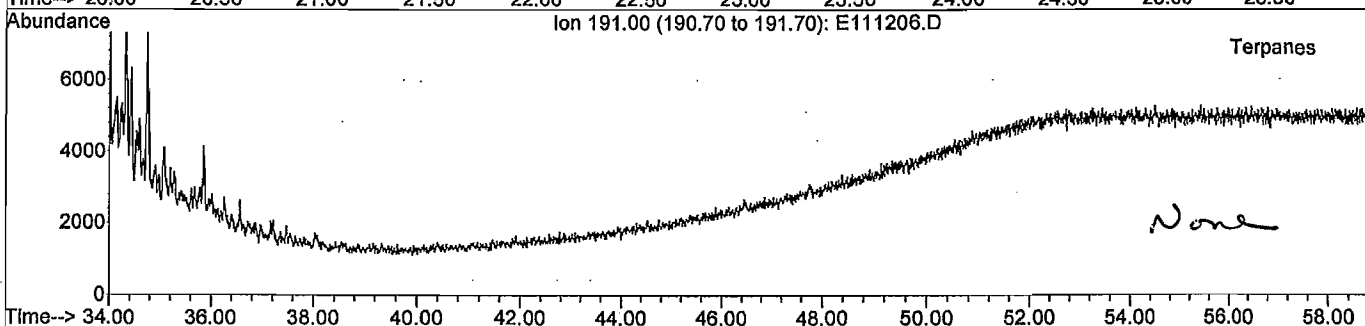
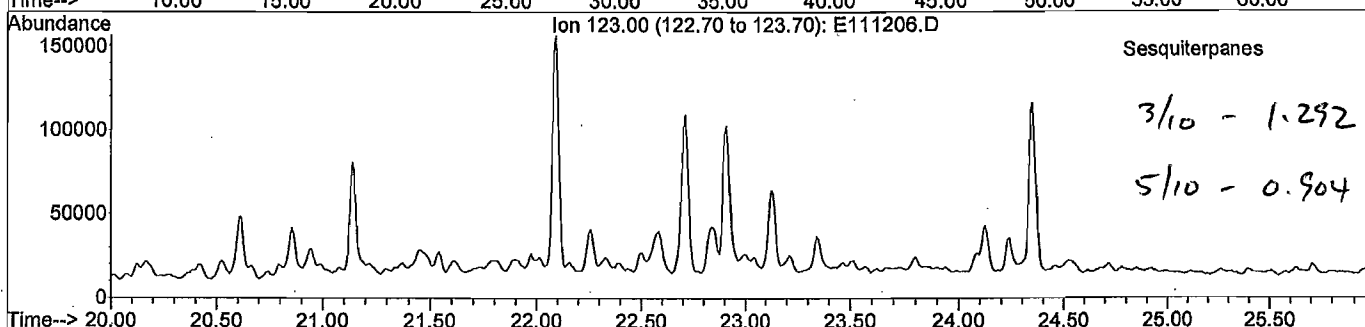
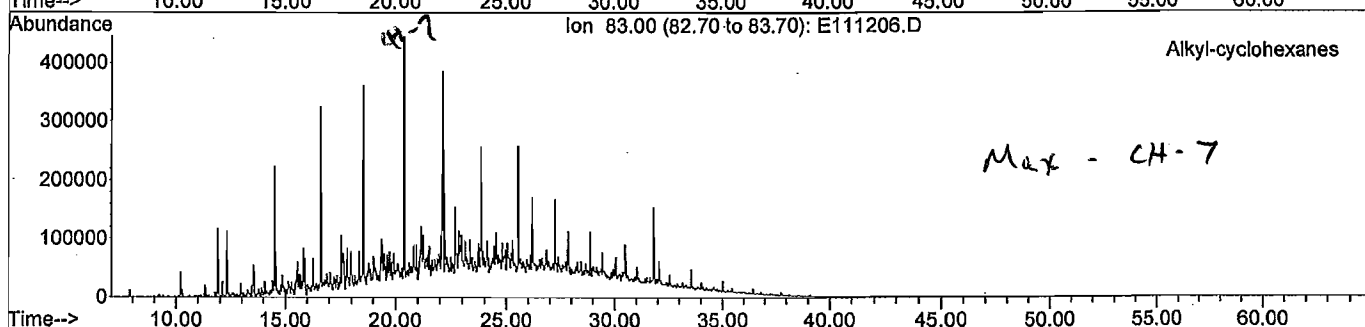
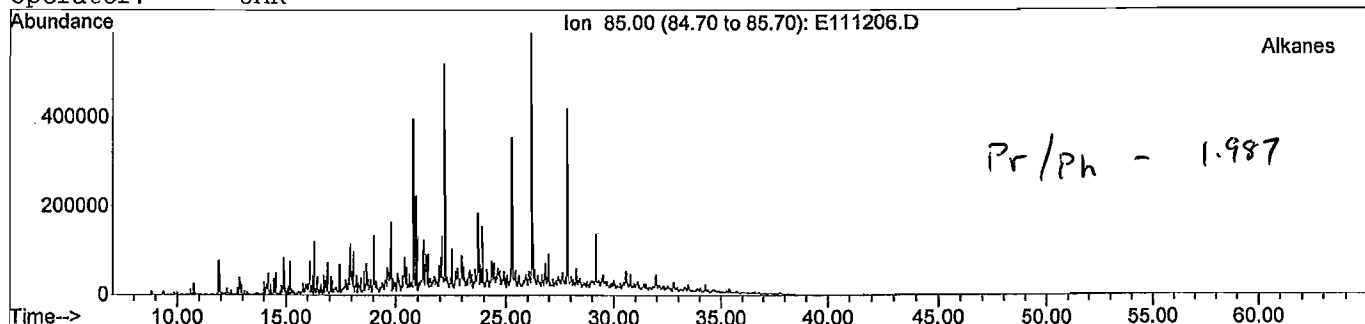
File: J:\1\DATA\E0811111\E111117.D
Date Acquired: 12 Nov 2008 11:40 am
Method File: 4008SIMD.M
Sample Name: HC081104-10
Misc Info: HISB - 113/30-35
Operator: JAR



Pattern C

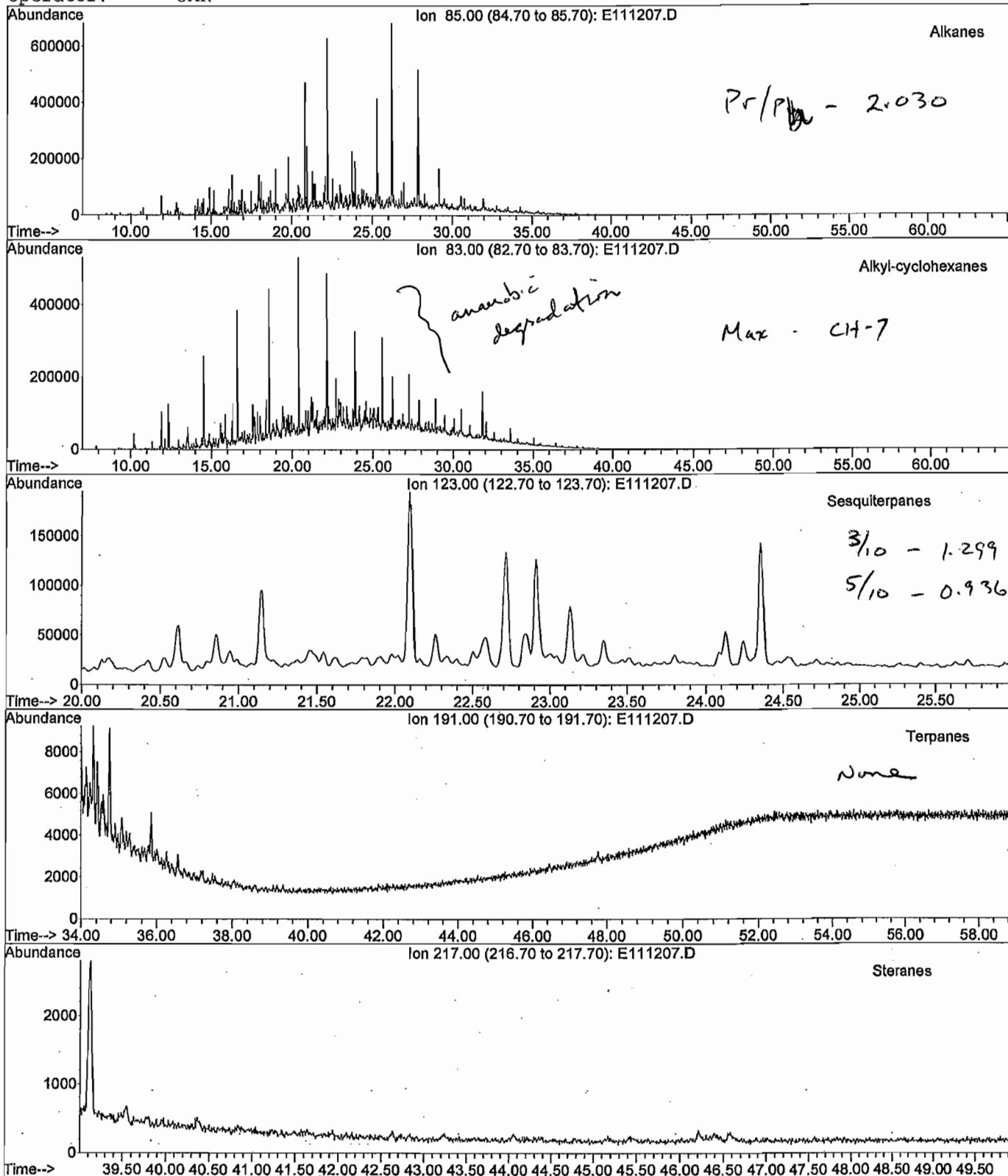
GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E081112\E111206.D
Date Acquired: 12 Nov 2008 9:28 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03
Misc Info: HISB-112 / TW / Product
Operator: JAR



GC/MS EXTRACTED ION CHROMATOGRAM

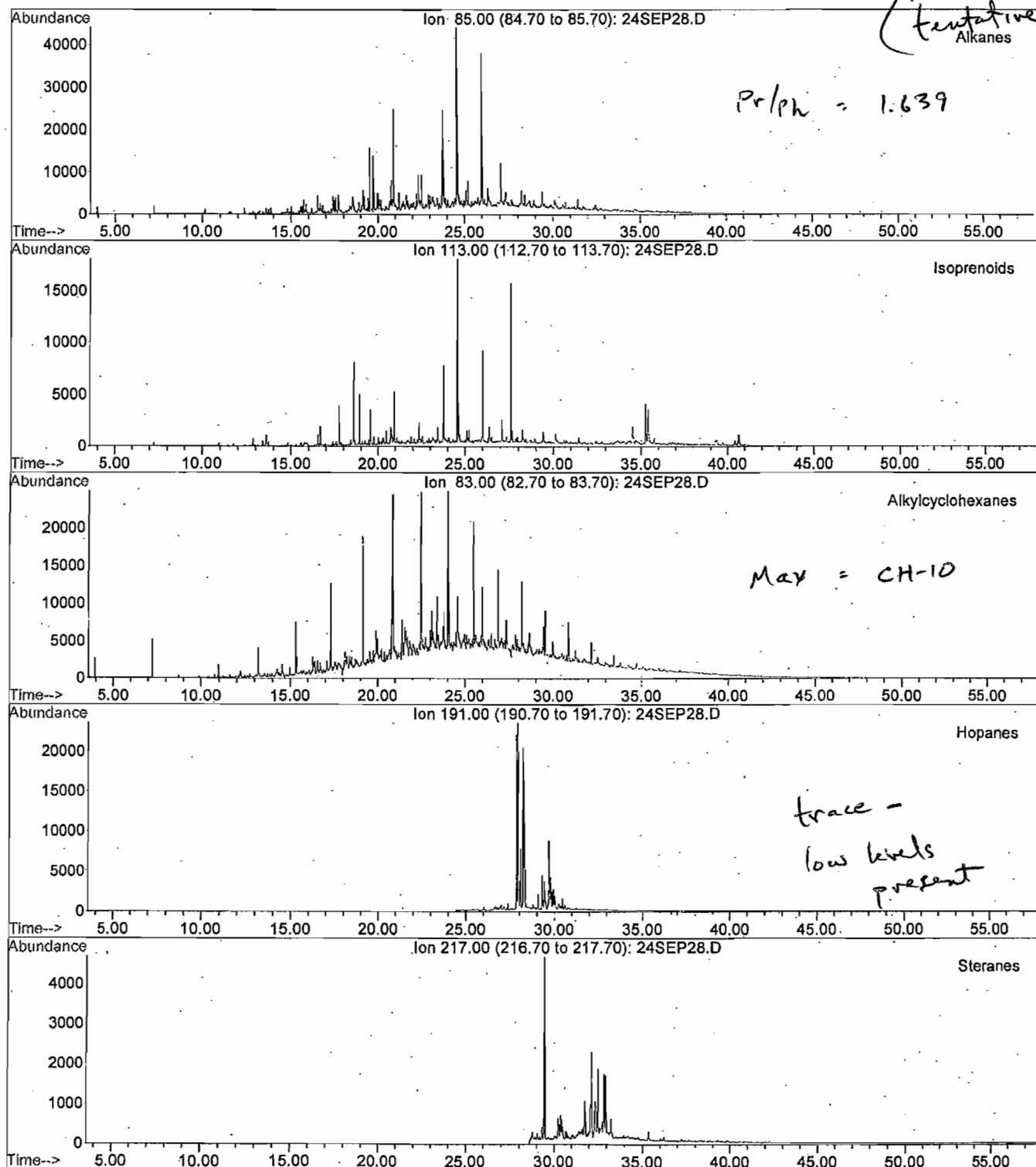
File: J:\1\DATA\E081112\E111207.D
Date Acquired: 12 Nov 2008 10:43 pm
Method File: 4008SIMD.M
Sample Name: HC081107-03DUP
Misc Info: Duplicate of HISB-112 / TW / Product
Operator: JAR



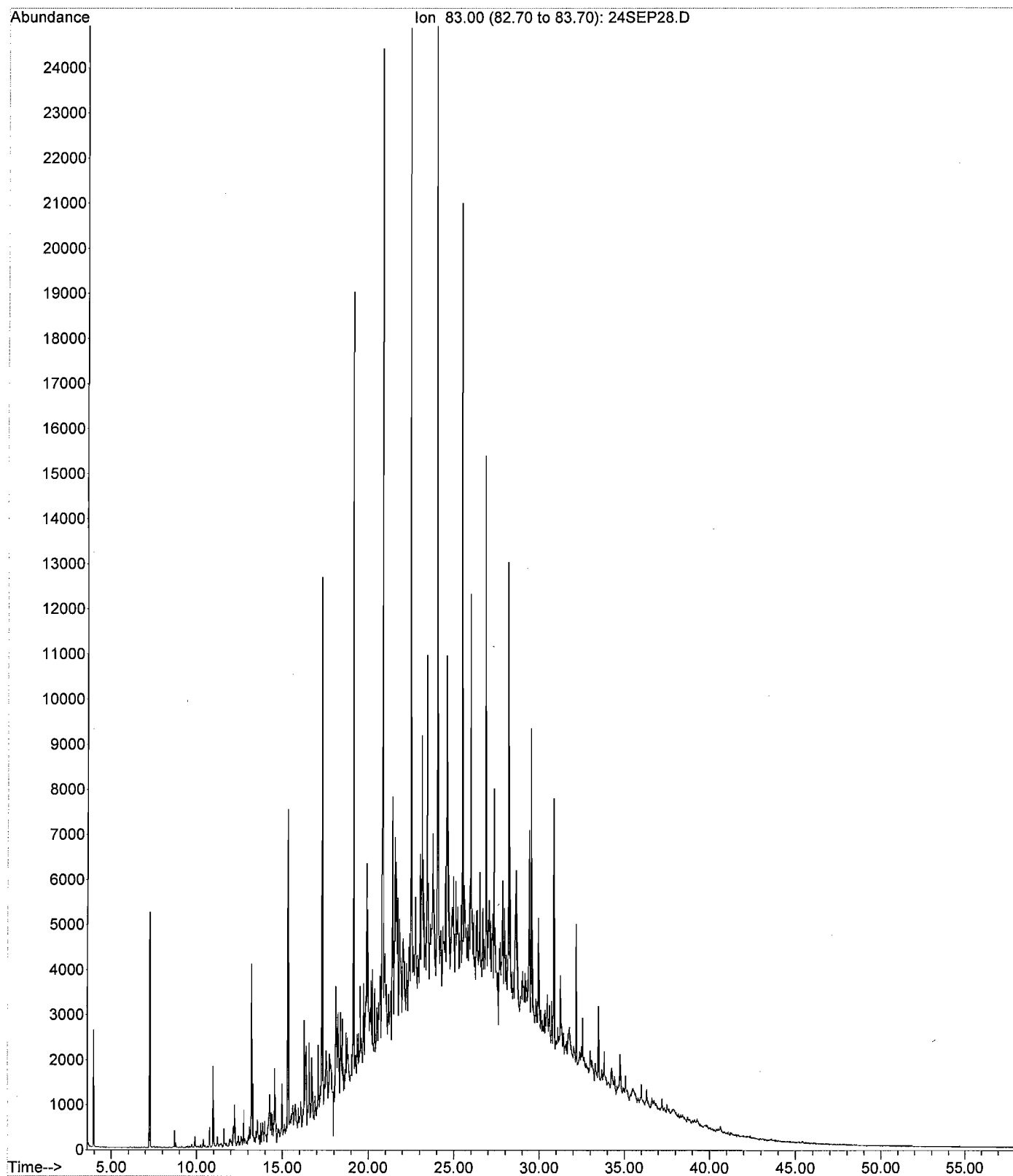
145B-70 (25-27)

App Page 430 of 749

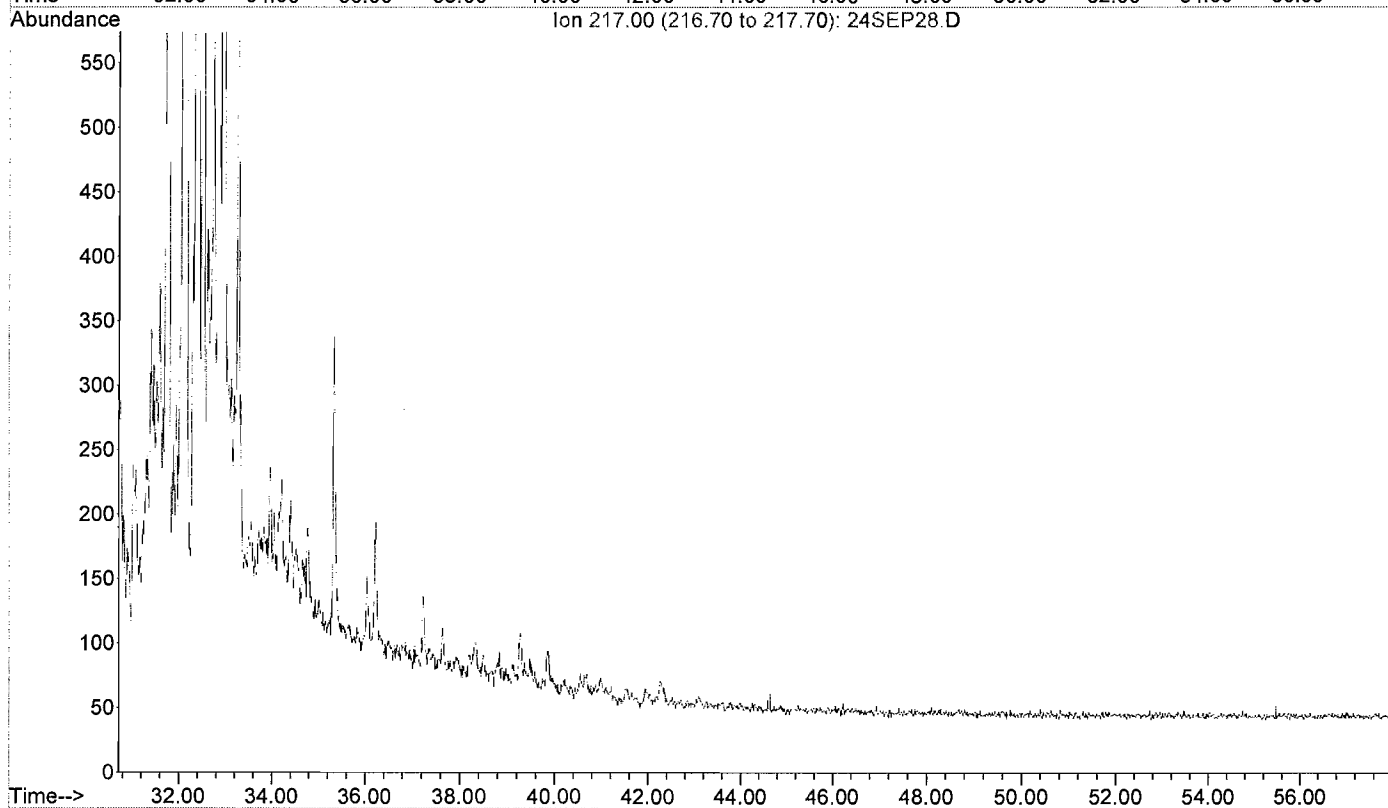
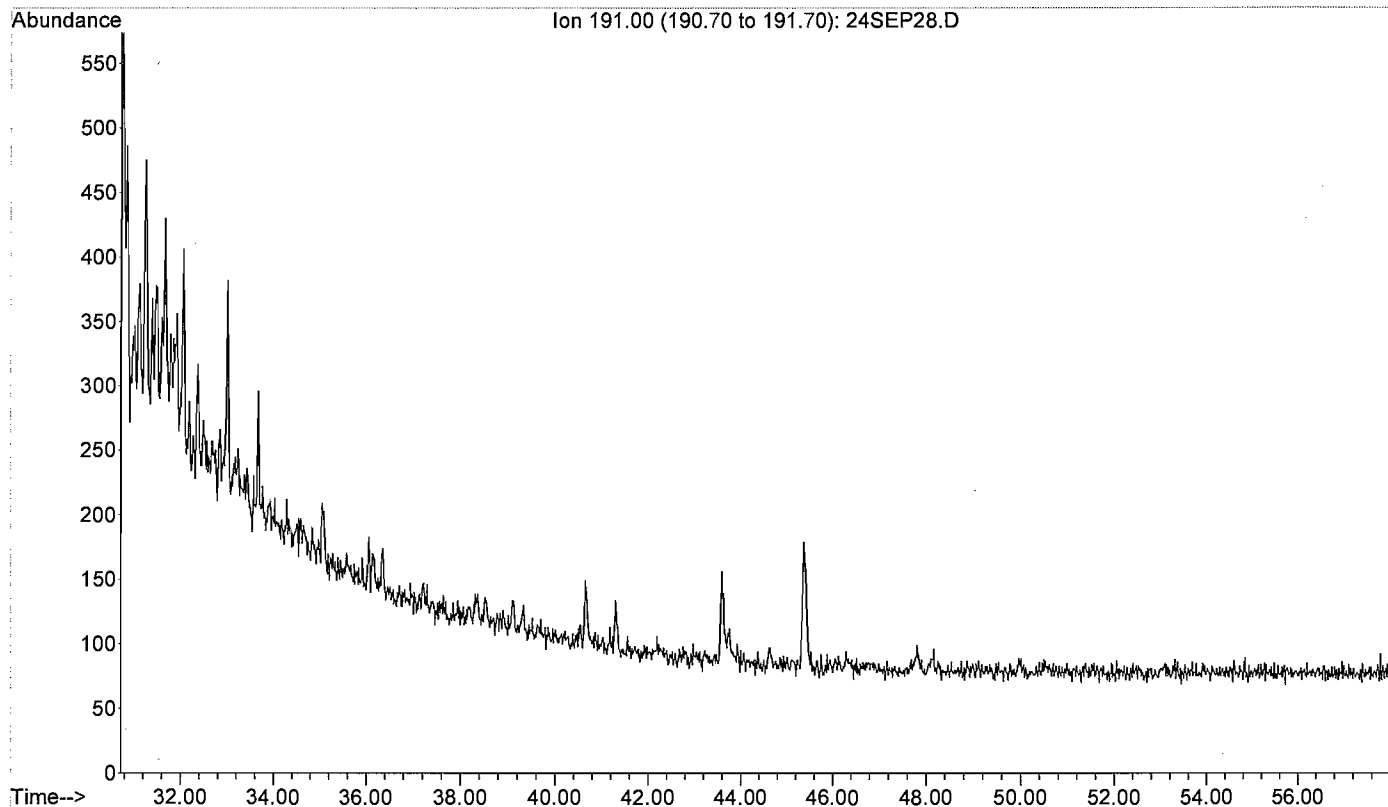
Field ID: 0309377-001A
 Lab ID: HT030913-01
 File: I:\4\DATA\030924\24SEP28.D
 Acquired: 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
 Instrument: GC4-MS_59 Operator: LKD



File :K:\GC 4\DATA\2003\030924\24SEP28.D
Operator : LKD
Acquired : 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT030913-01
Misc Info : 0309377-001A
Vial Number: 28



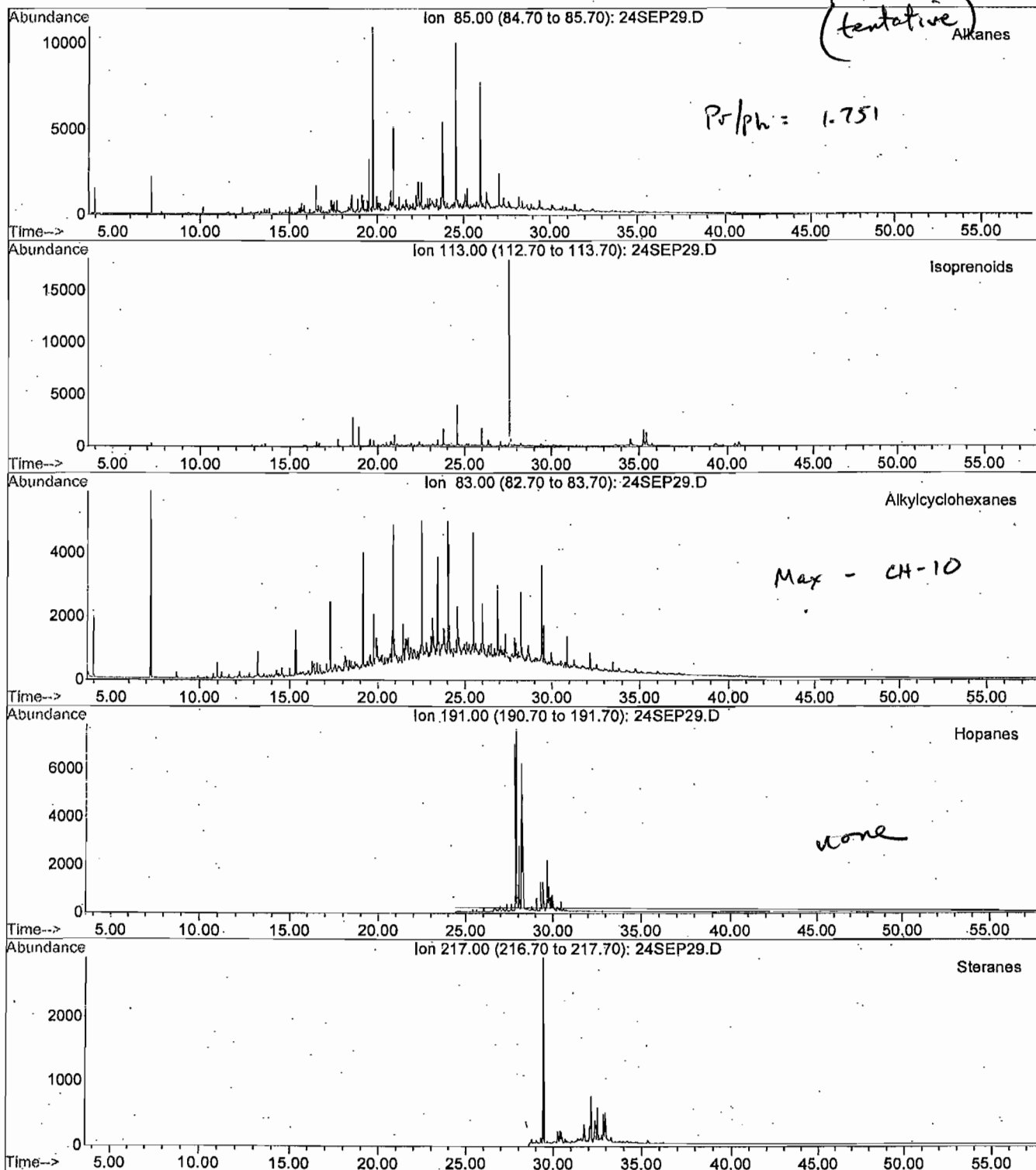
File :K:\GC 4\DATA\2003\030924\24SEP28.D
Operator : LKD
Acquired : 25 Sep 2003 1:09 pm using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT030913-01
Misc Info : 0309377-001A
Vial Number: 28



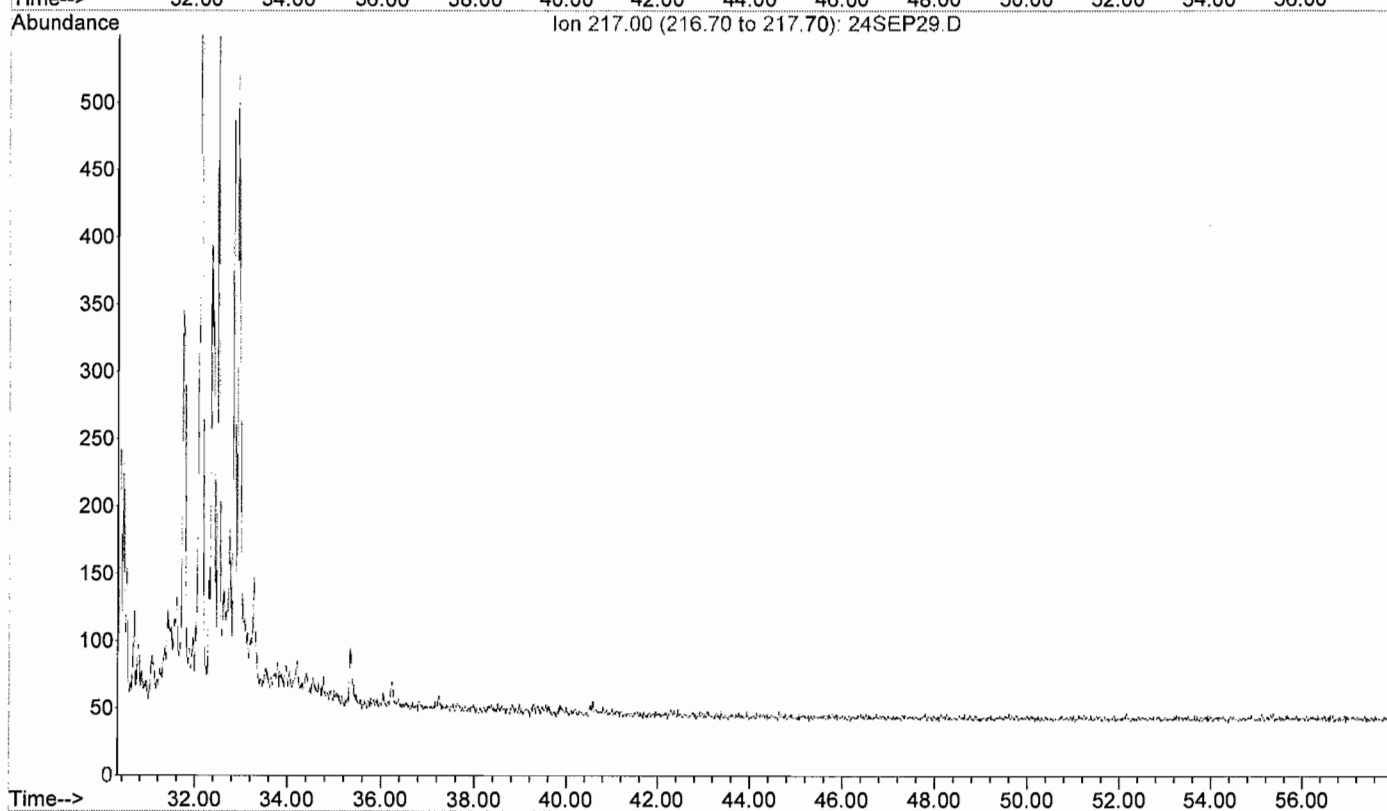
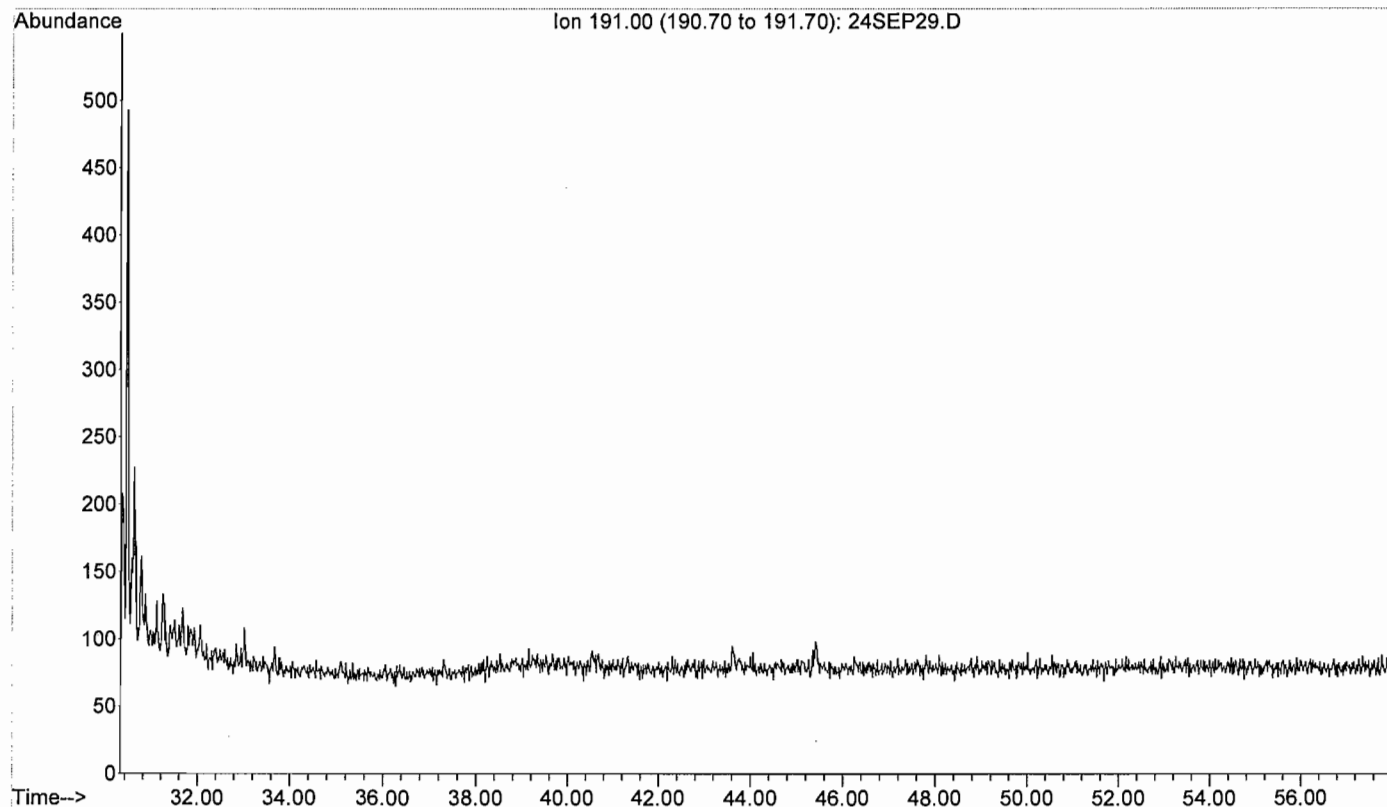
HISB-70 (31-33)

App Page 439 of 749

Field ID: 0309377-002A
 Lab ID: HT030913-02
 File: I:\4\DATA\030924\24SEP29.D
 Acquired: 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
 Instrument: GC4-MS_59 Operator: LKD

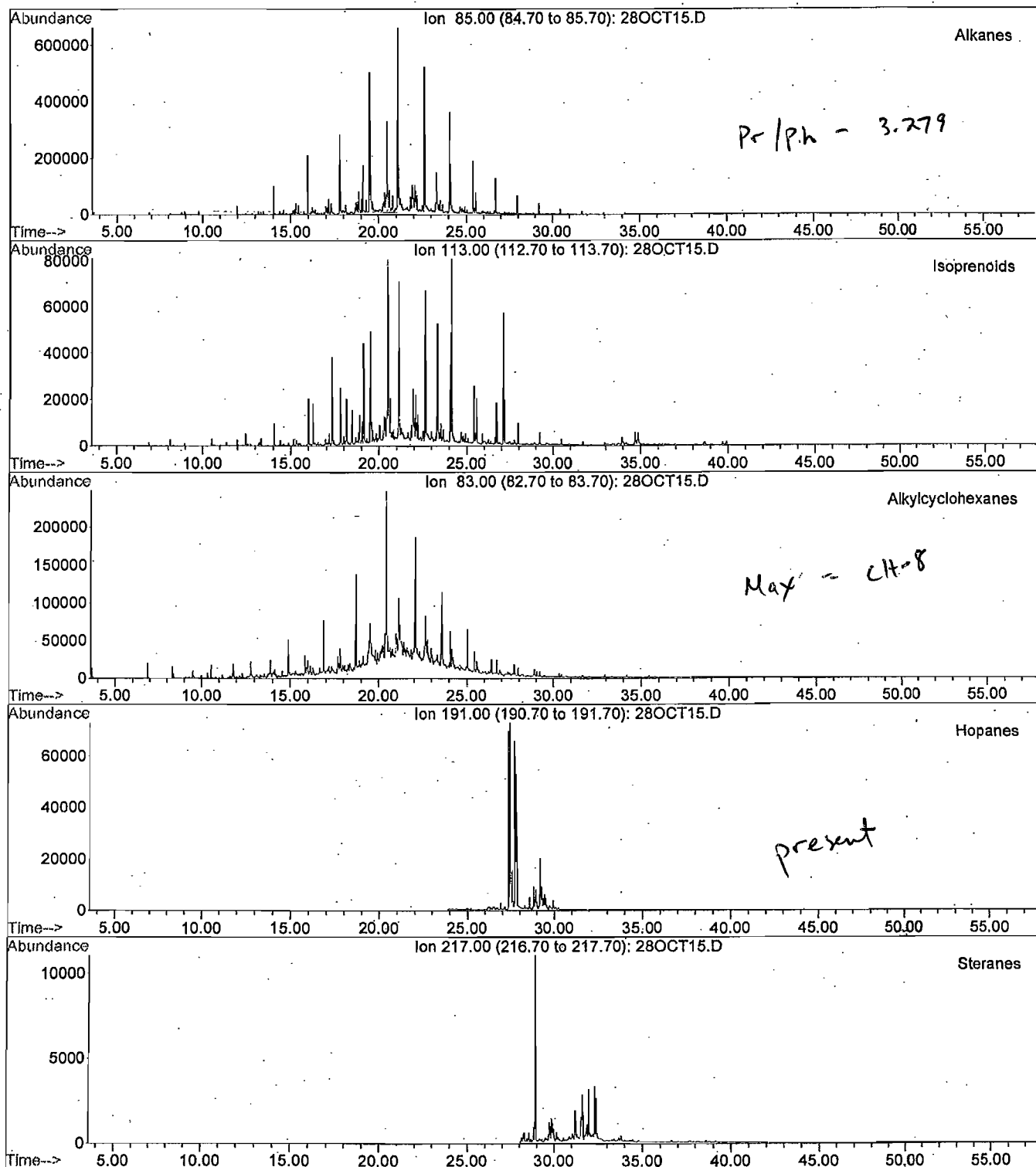


File :K:\GC 4\DATA\2003\030924\24SEP29.D
Operator : LKD
Acquired : 25 Sep 2003 2:22 pm using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT030913-02
Misc Info : 0309377-002A
Vial Number: 29

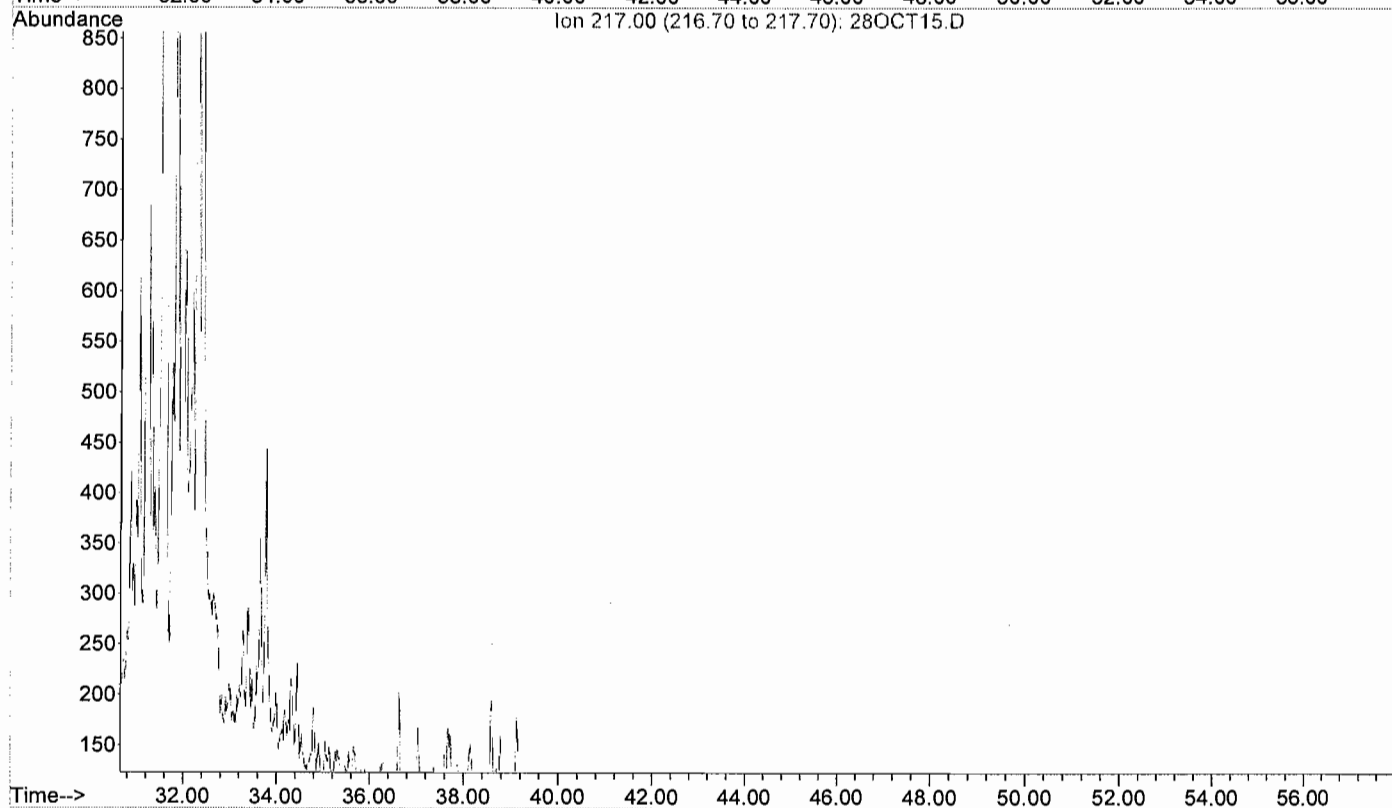
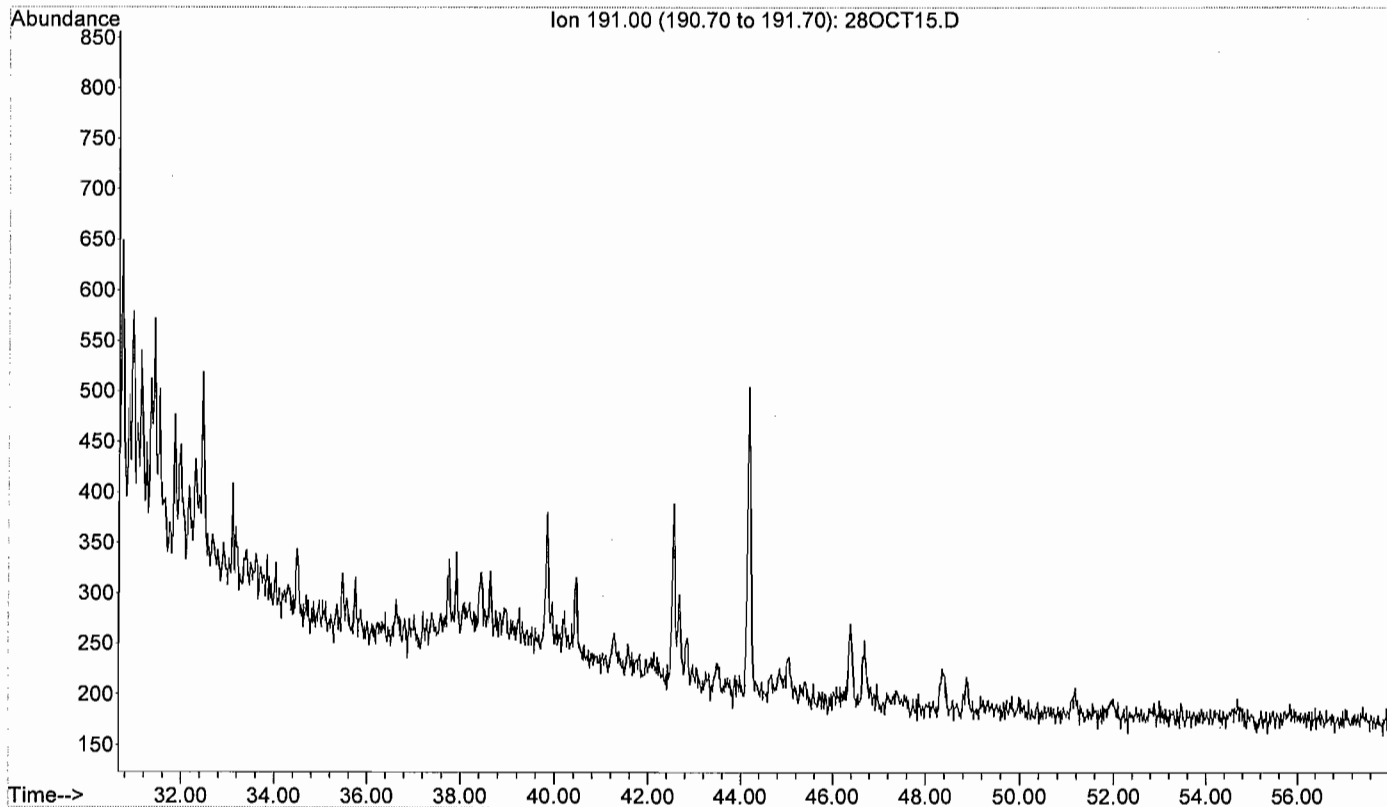


Field ID: 0309817-001A
Lab ID: HT030930-01
File: I:\4\DATA\031028\28OCT15.D
Acquired: 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

HISB-60 (17-19)



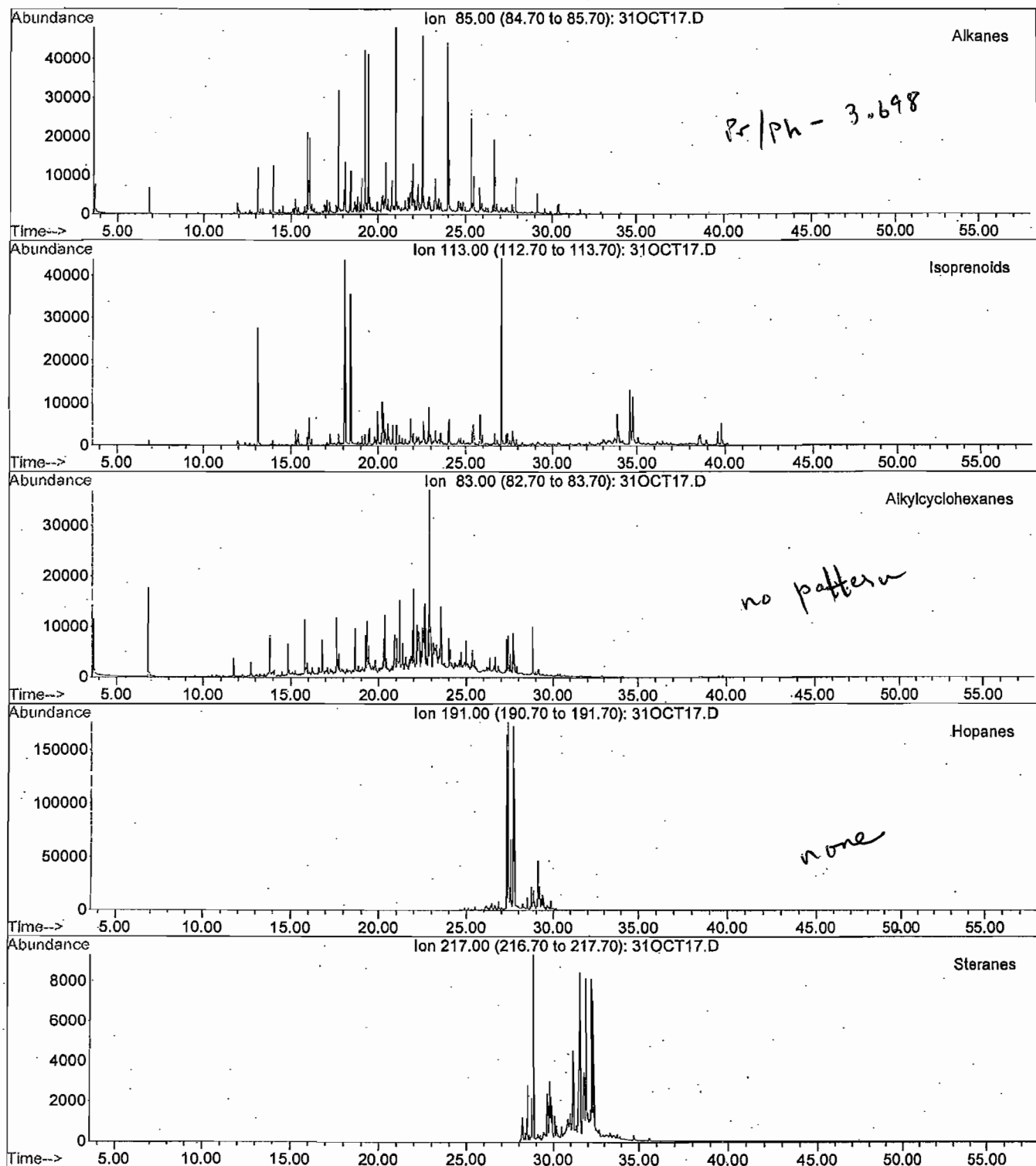
File :K:\GC 4\DATA\2003\031028\28OCT15.D
Operator : MP
Acquired : 29 Oct 2003 9:34 am using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT030930-01
Misc Info : 0309817-001A
Vial Number: 46



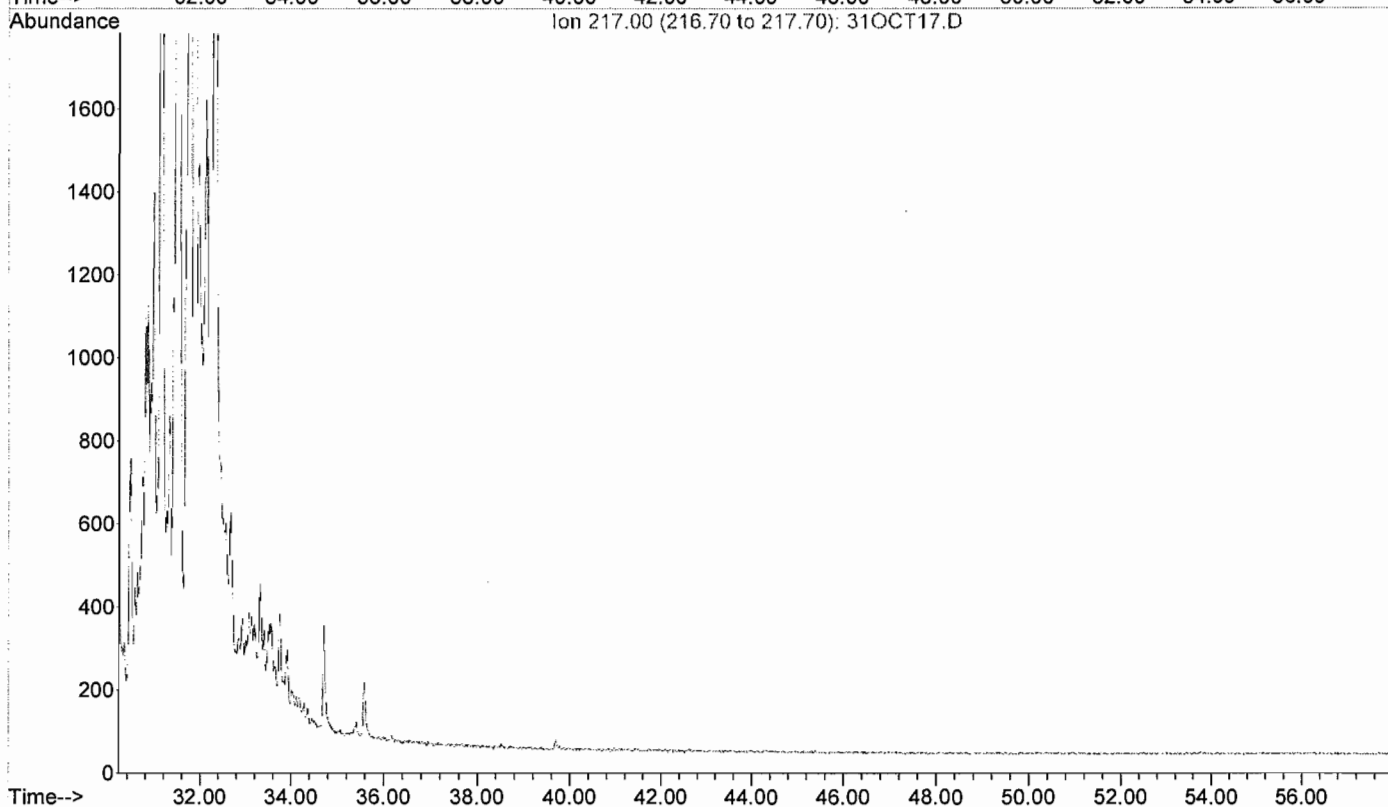
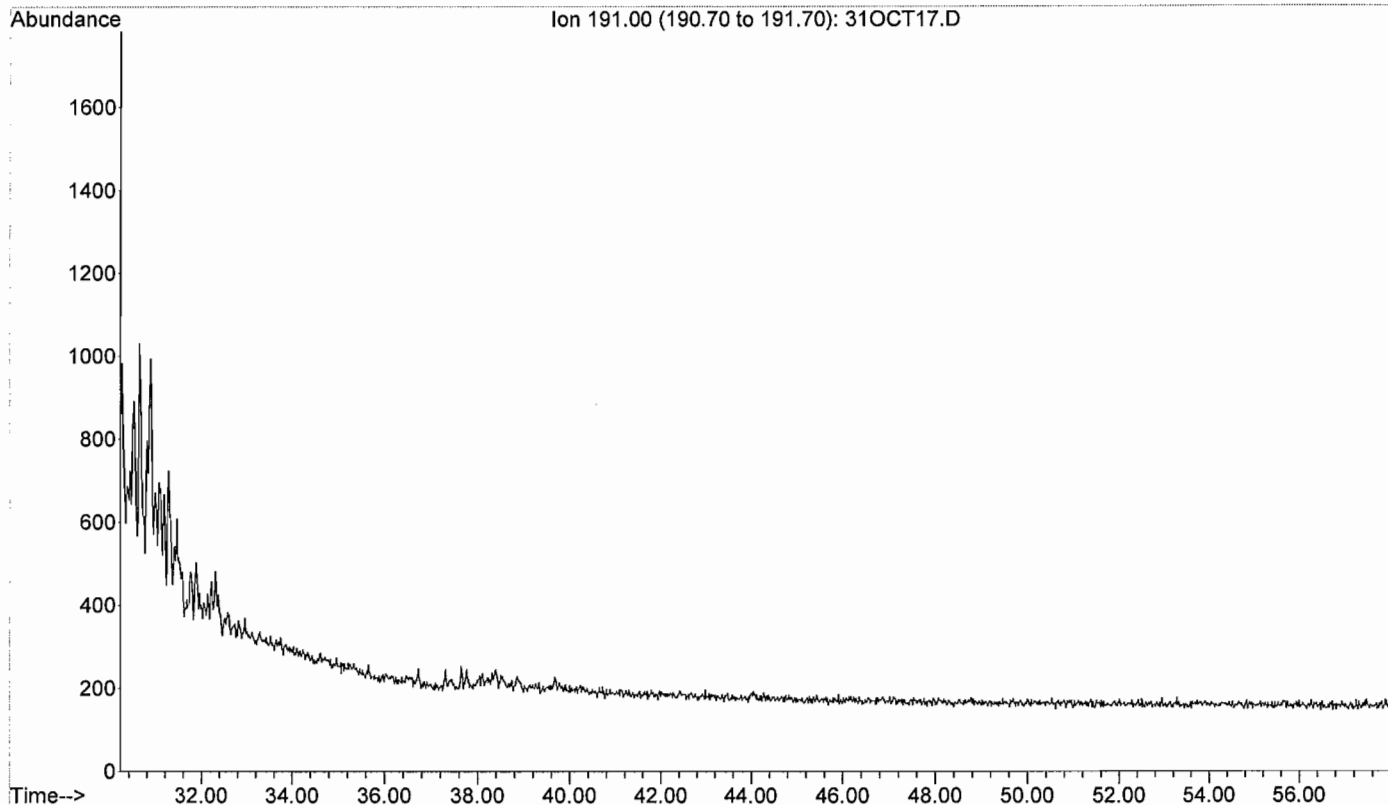
H-15B-58 (21-24)

App Page 494 of 749

Field ID: 0310103-001A
Lab ID: HT031006-01
File: I:\4\DATA\031031\31OCT17.D
Acquired: 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP

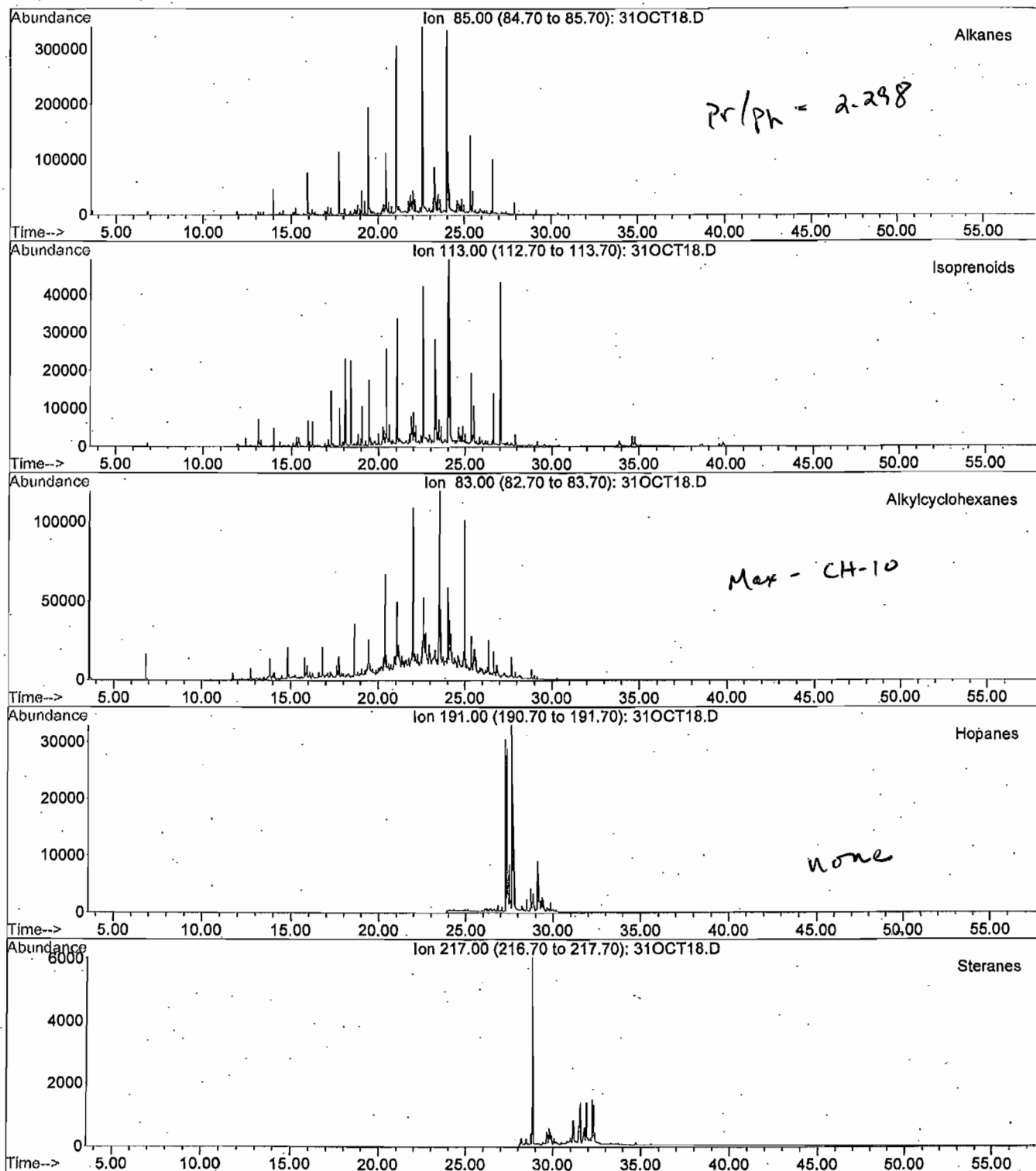


File :K:\GC 4\DATA\2003\031031\31OCT17.D
Operator : MP
Acquired : 1 Nov 2003 12:04 pm using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT031006-01
Misc Info : 0310103-001A
Vial Number: 7

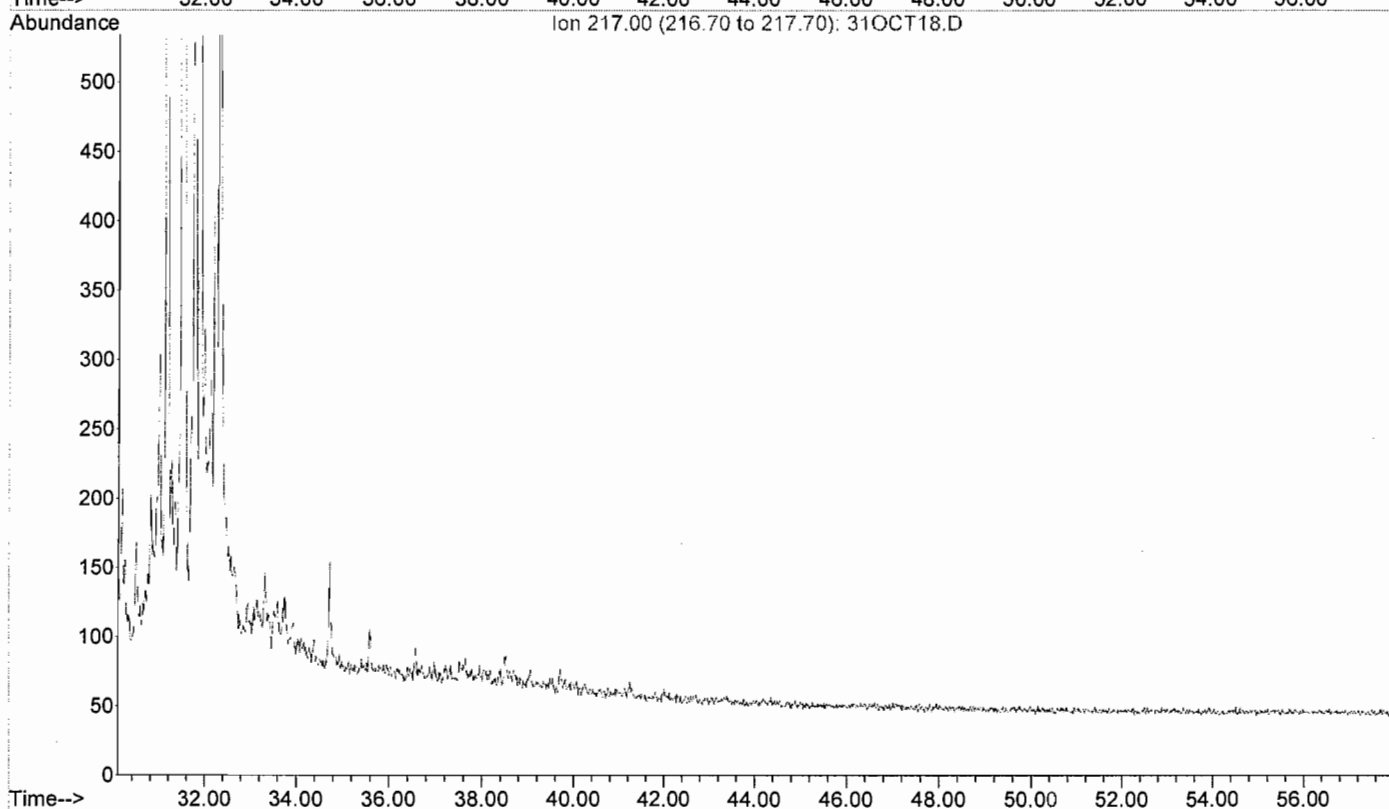
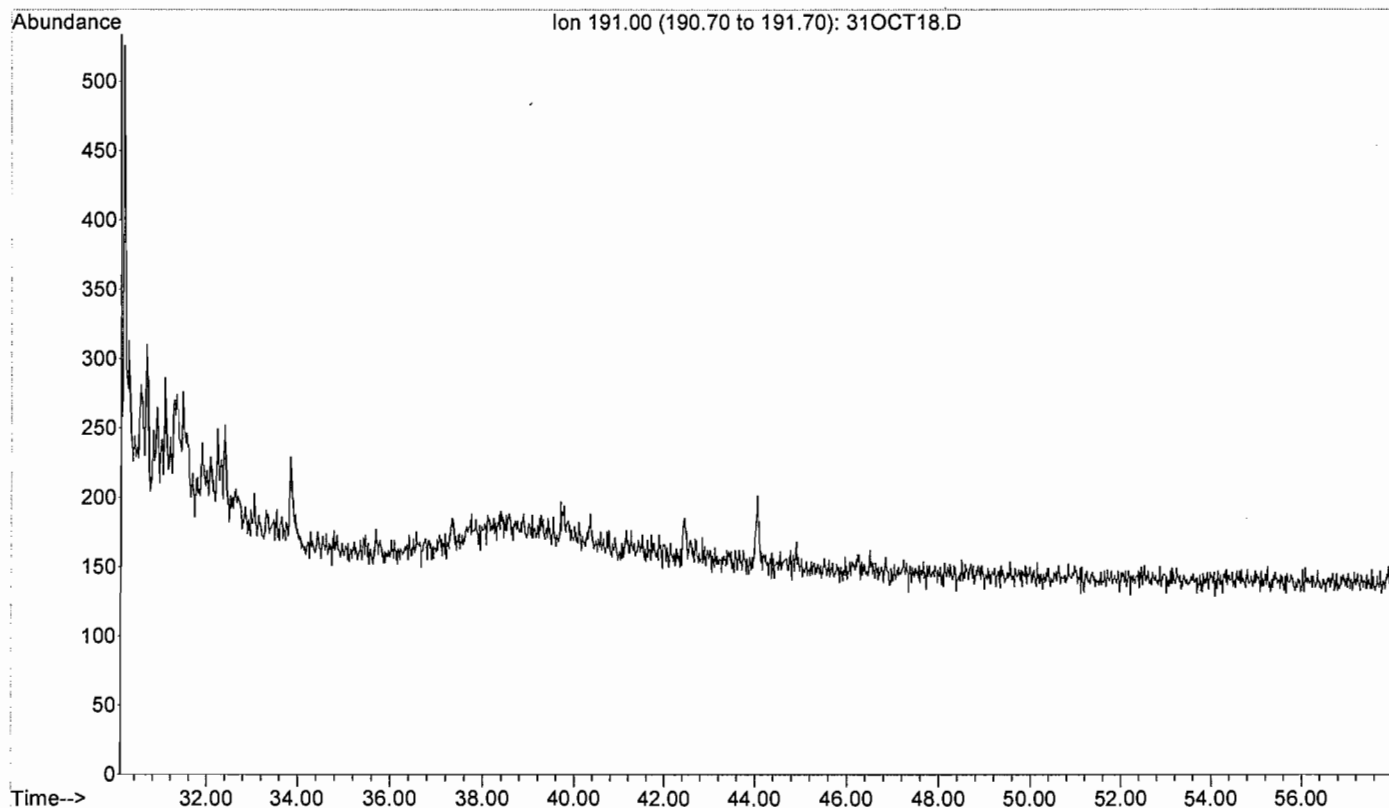


HISB-58 (30-32)

Field ID: 0310103-002A
Lab ID: HT031006-02
File: I:\4\DATA\031031\31OCT18.D
Acquired: 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument: GC4-MS_59 Operator: MP



File :K:\GC 4\DATA\2003\031031\31OCT18.D
Operator : MP
Acquired : 1 Nov 2003 1:18 pm using AcqMethod MET4008Z
Instrument : GC4-MS_59
Sample Name: HT031006-02
Misc Info : 0310103-002A
Vial Number: 8



Field ID: 0403256-001A

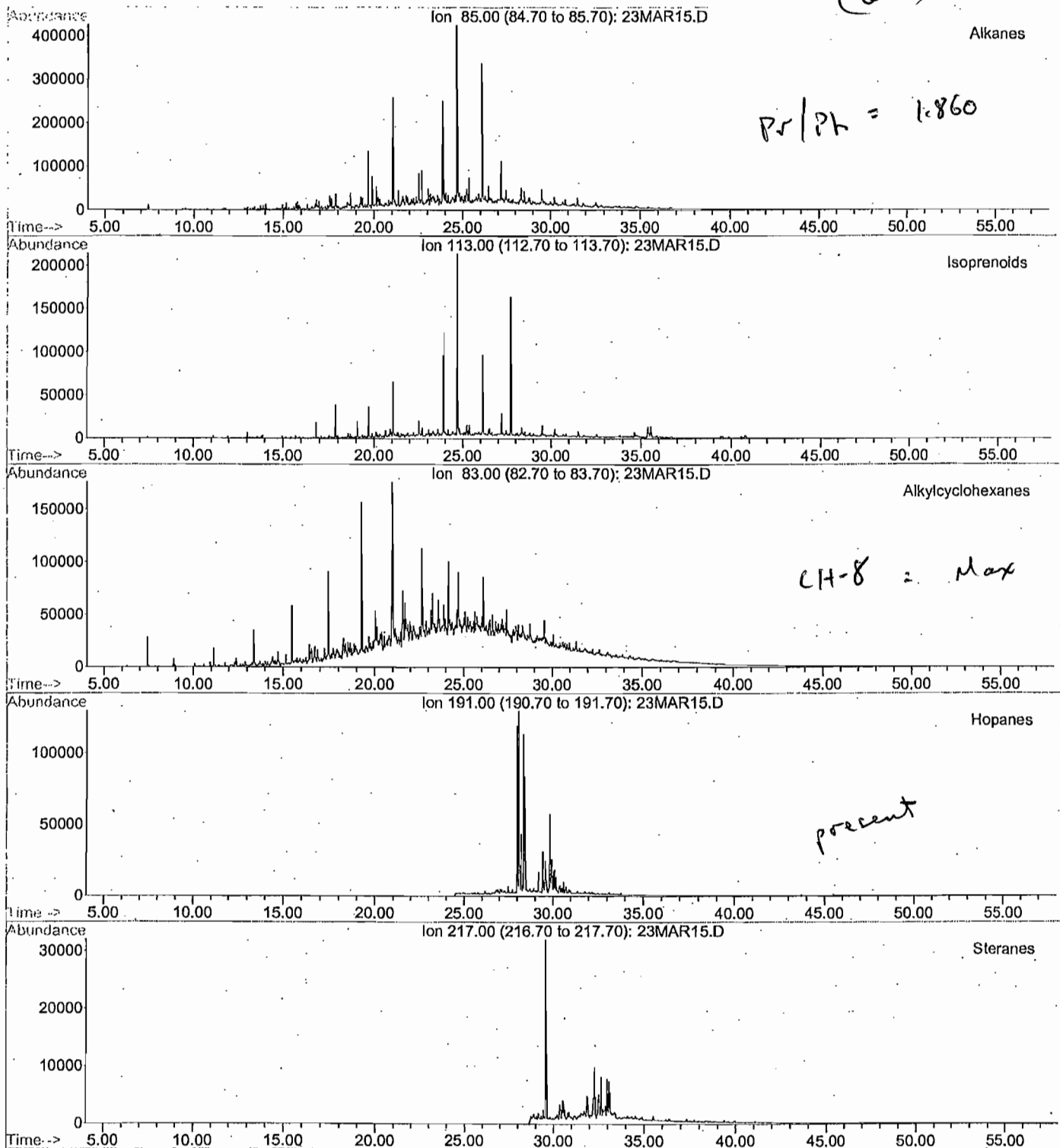
Lab ID: HT040308-01

File: I:\2\DATA\040323\23MAR15.D

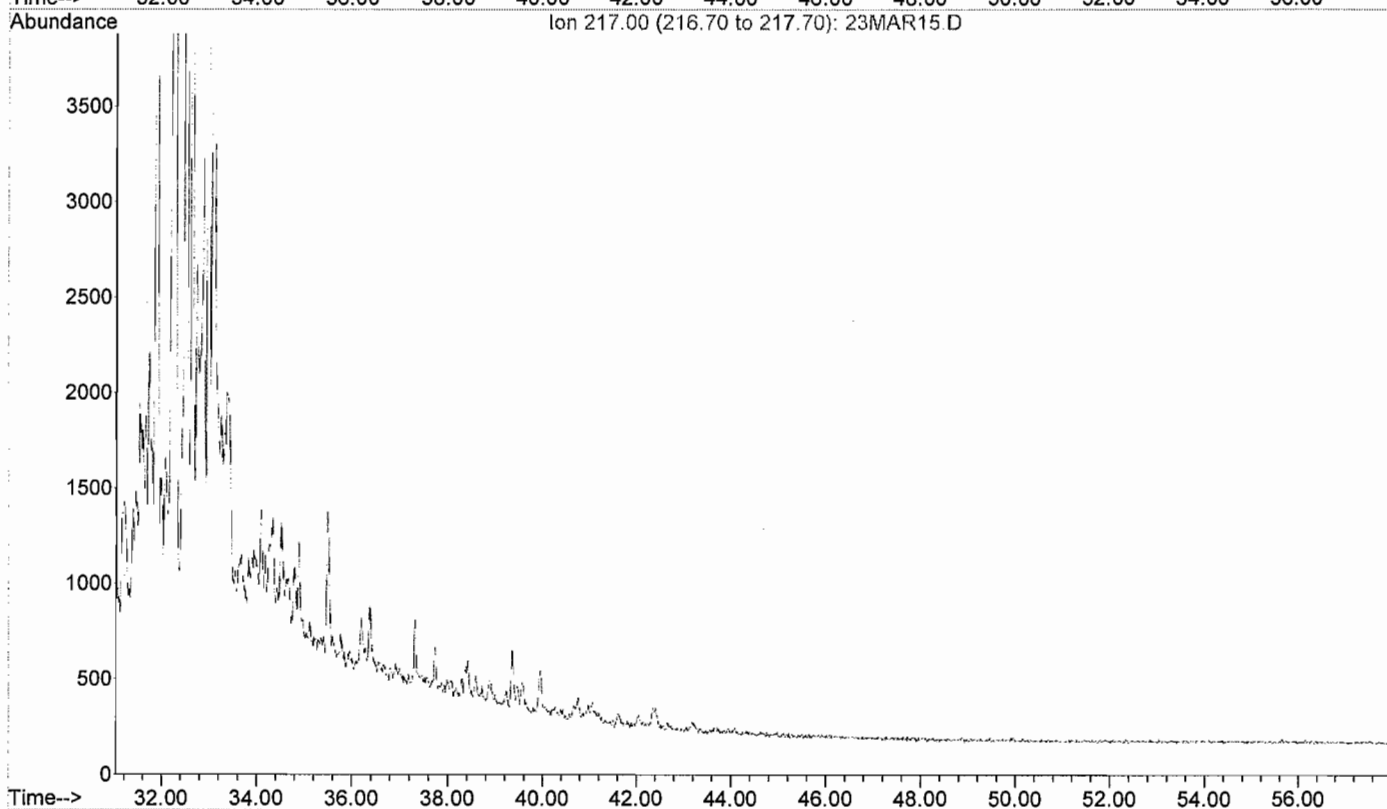
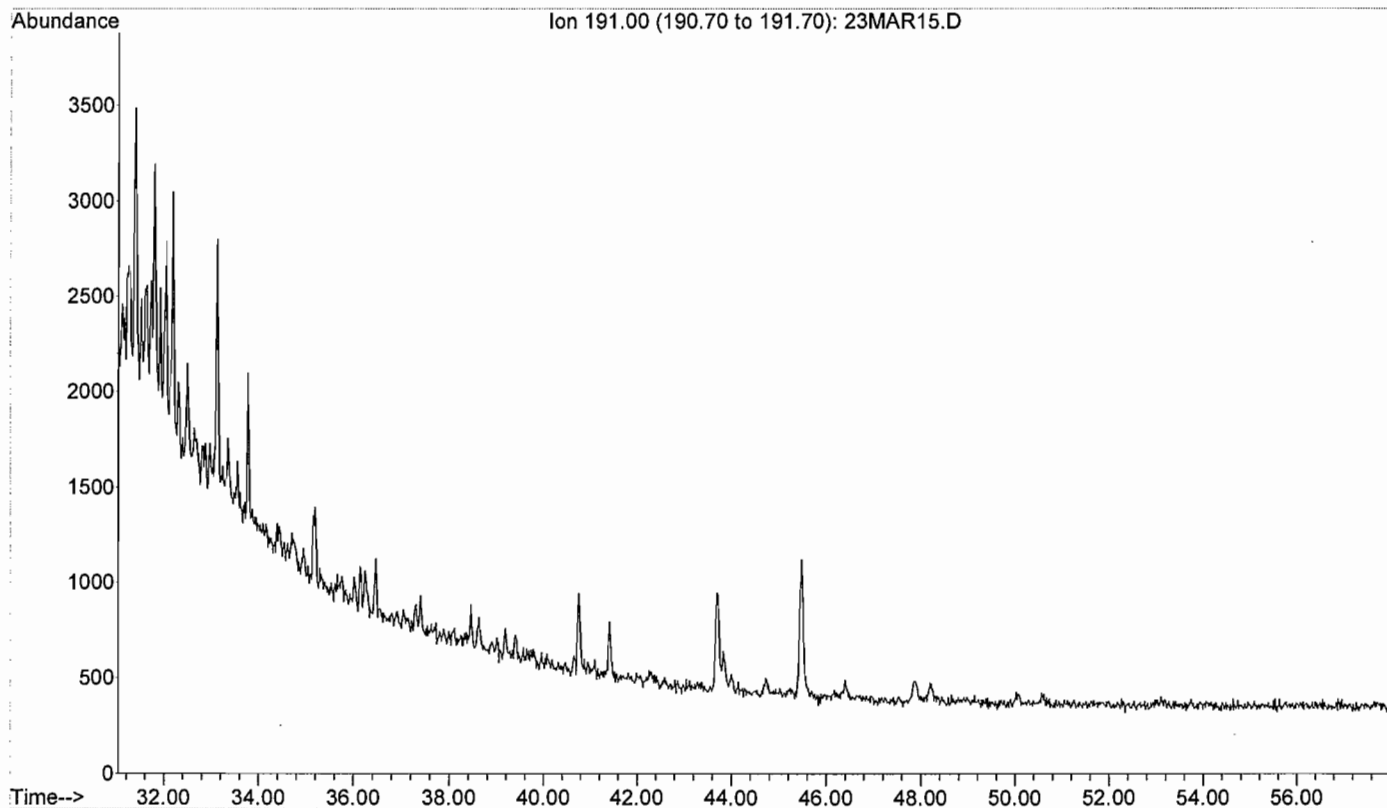
Acquired: 24 Mar 2004 1:32 am using AcqMethod.4008SIM

Instrument: GC2-MS_59 Operator: DB

HSB-78 (26-28)

Pattern A
(tent)

File :K:\GC 2\DATA\2004\040323\23MAR15.D
Operator : DB
Acquired : 24 Mar 2004 1:32 am using AcqMethod 4008SIM
Instrument : GC2-MS_59
Sample Name: HT040308-01
Misc Info : 0403256-001A
Vial Number: 15



Field ID: 0403256-002A

Lab ID: HT040308-02

File: I:\2\DATA\040323\23MAR18.D

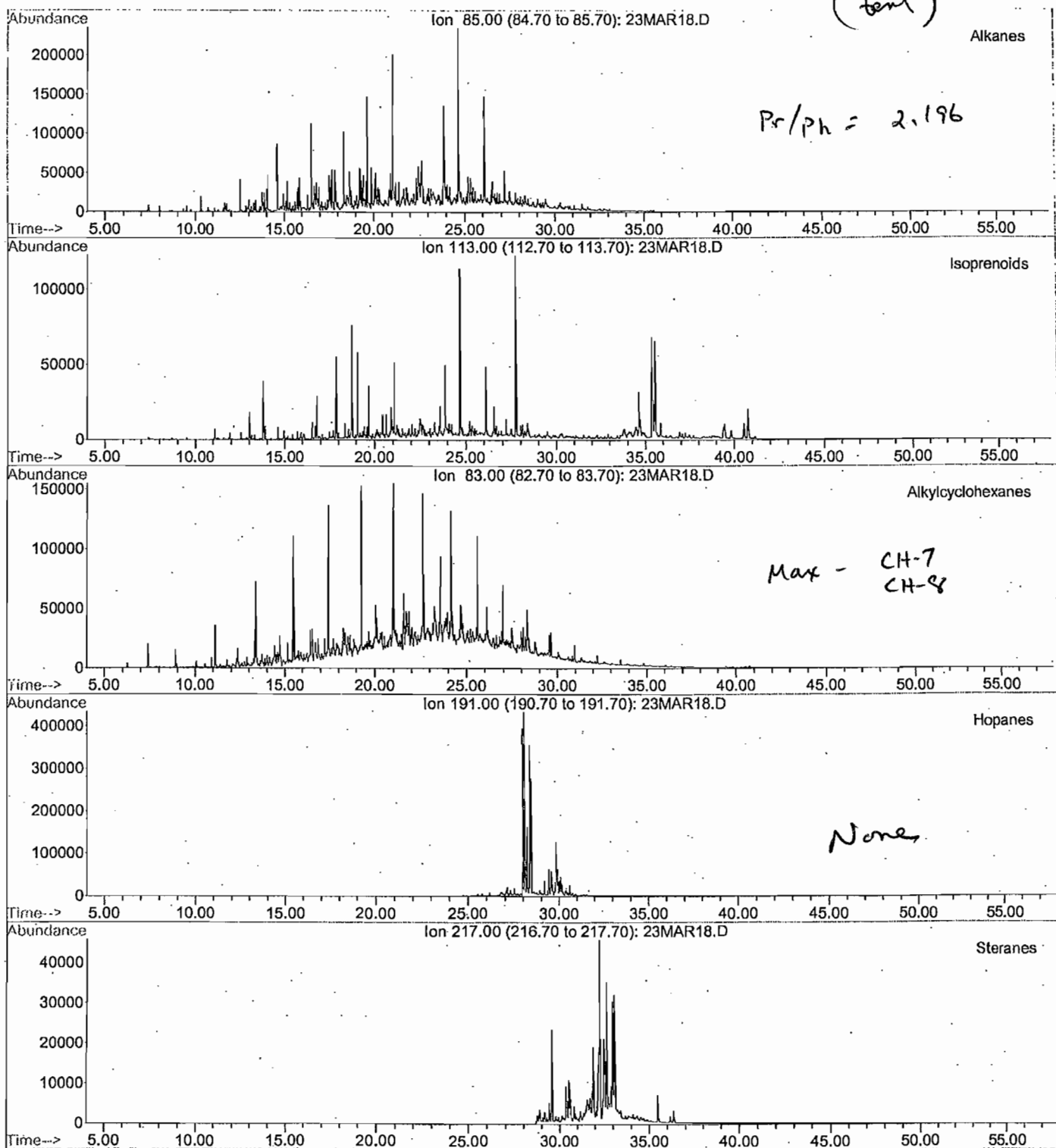
Acquired: 24 Mar 2004 5:05 am using AcqMethod 4008SIM

Instrument: GC2-MS_59 Operator: DB

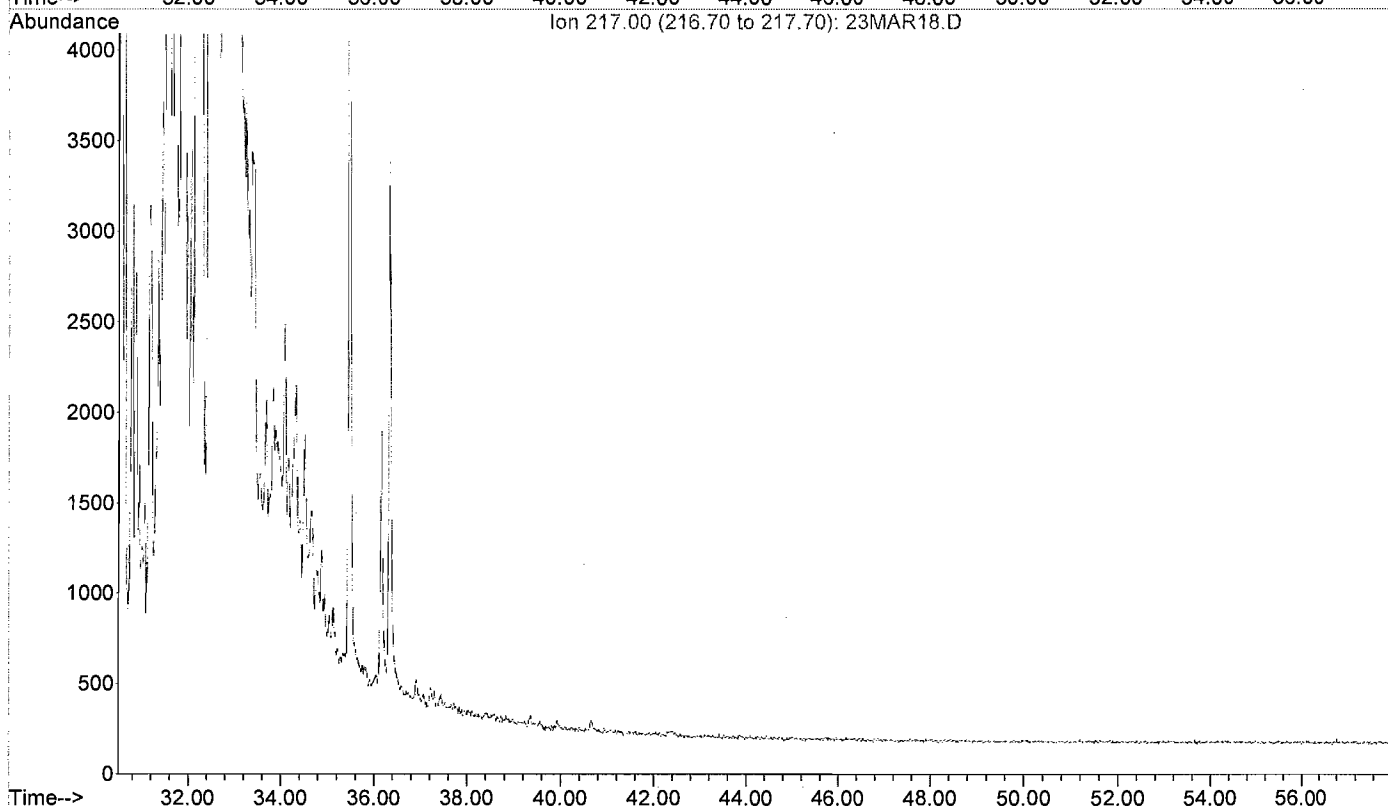
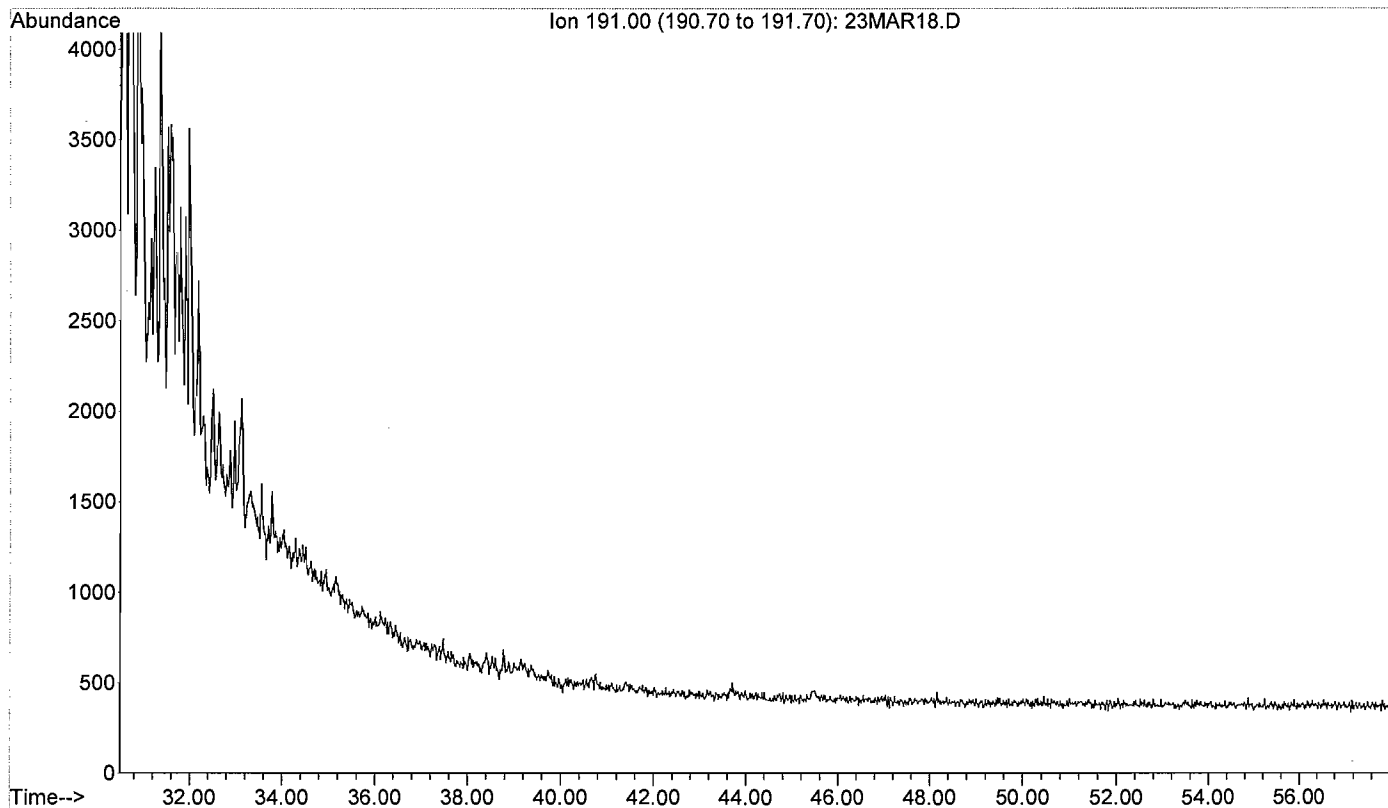
HISB-79 (34-35)

Pattern C
(tent)

Pr/ph = 2.196



File :K:\GC 2\DATA\2004\040323\23MAR18.D
Operator : DB
Acquired : 24 Mar 2004 5:05 am using AcqMethod 4008SIM
Instrument : GC2-MS_59
Sample Name: HT040308-02
Misc Info : 0403256-002A
Vial Number: 18

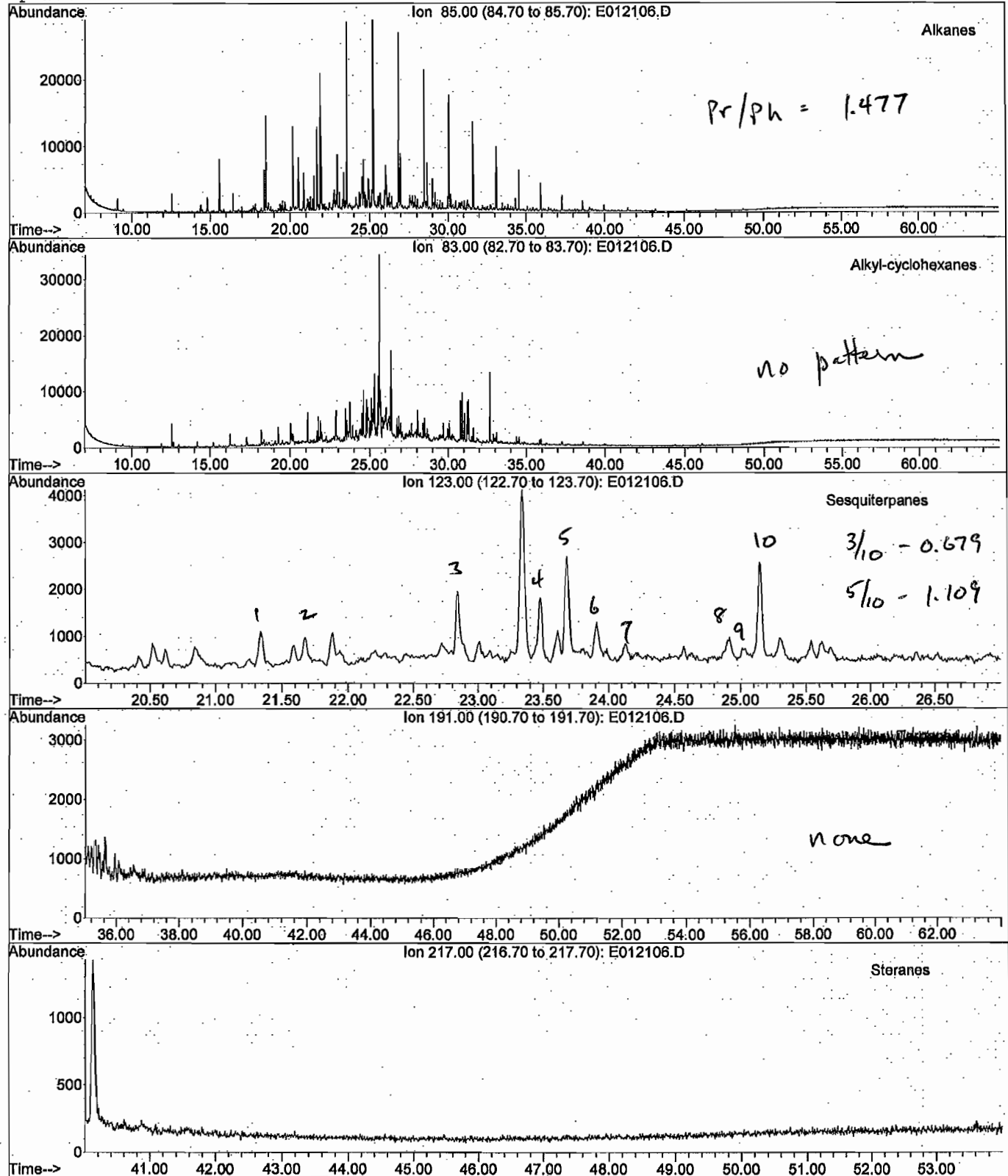


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080121\E012106.D
Date Acquired: 21 Jan 2008 10:52 pm
Method File: 4008SIMT.M
Sample Name: HC071228-01-D2
Misc Info: 0714446-008C - 20X
Operator: JAR

DGP-71

Pattern B

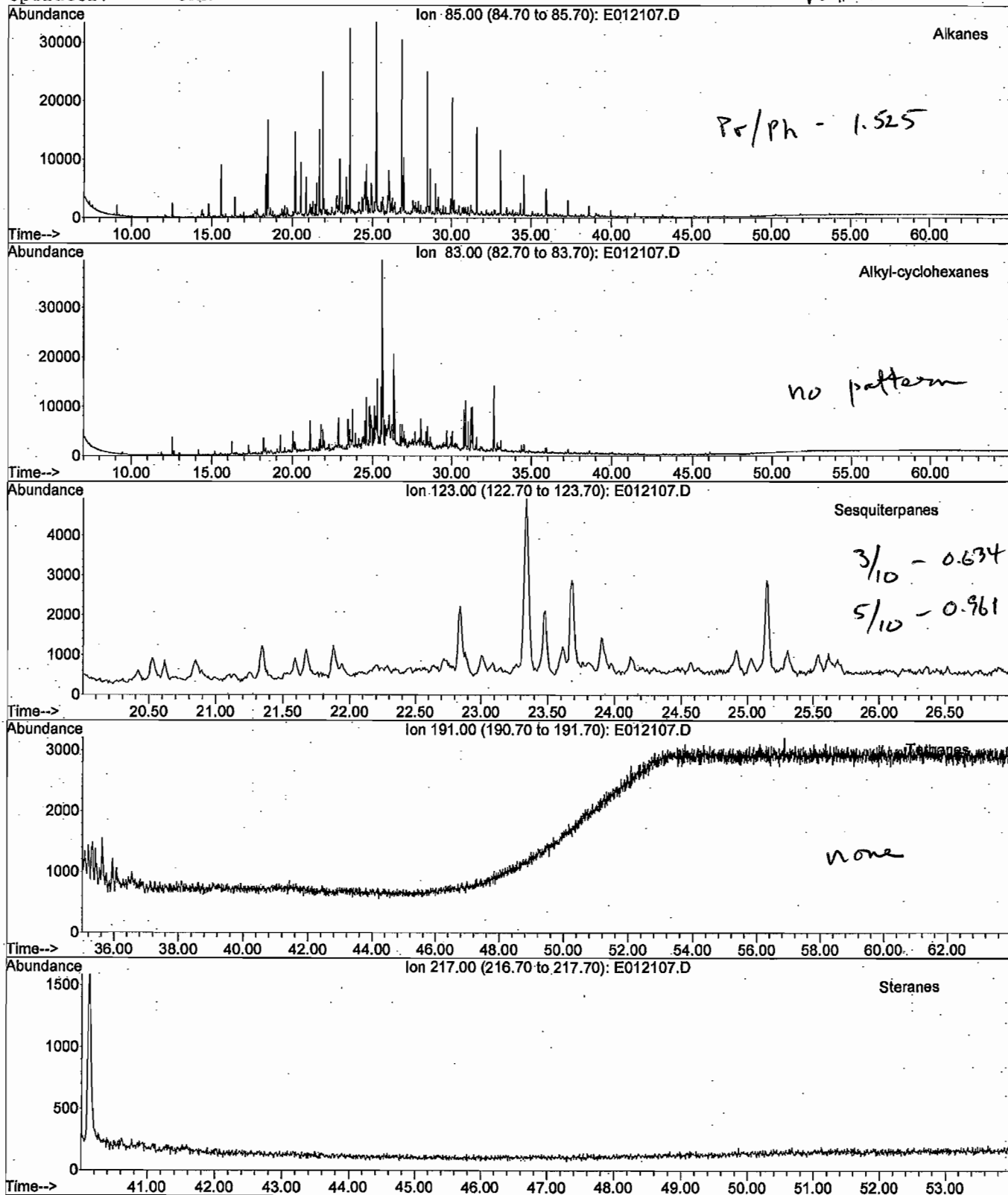


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080121\E012107.D
Date Acquired: 22 Jan 2008 12:06 am
Method File: 4008SIMT.M
Sample Name: HC071228-01DUP-D2
Misc Info: Duplicate of 0714446-008C - 20X
Operator: JAR

DGP-71 Dup

Pattern B

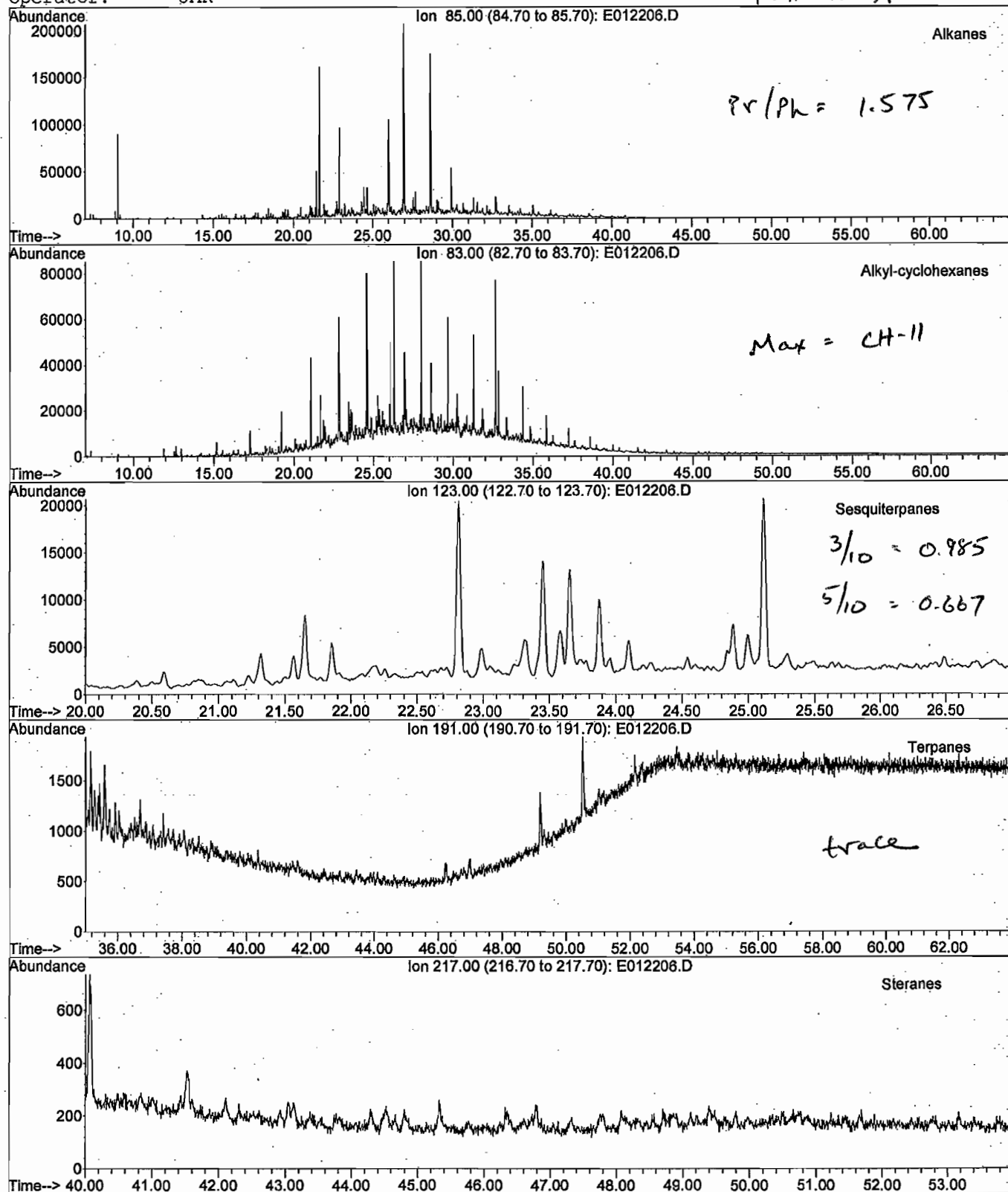


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080122\E012206.D
Date Acquired: 22 Jan 2008 8:59 pm
Method File: 4008SIMT.M
Sample Name: HC080118-01
Misc Info: 0801605-001D
Operator: JAR

HISB-83 (5-10)

Pattern A

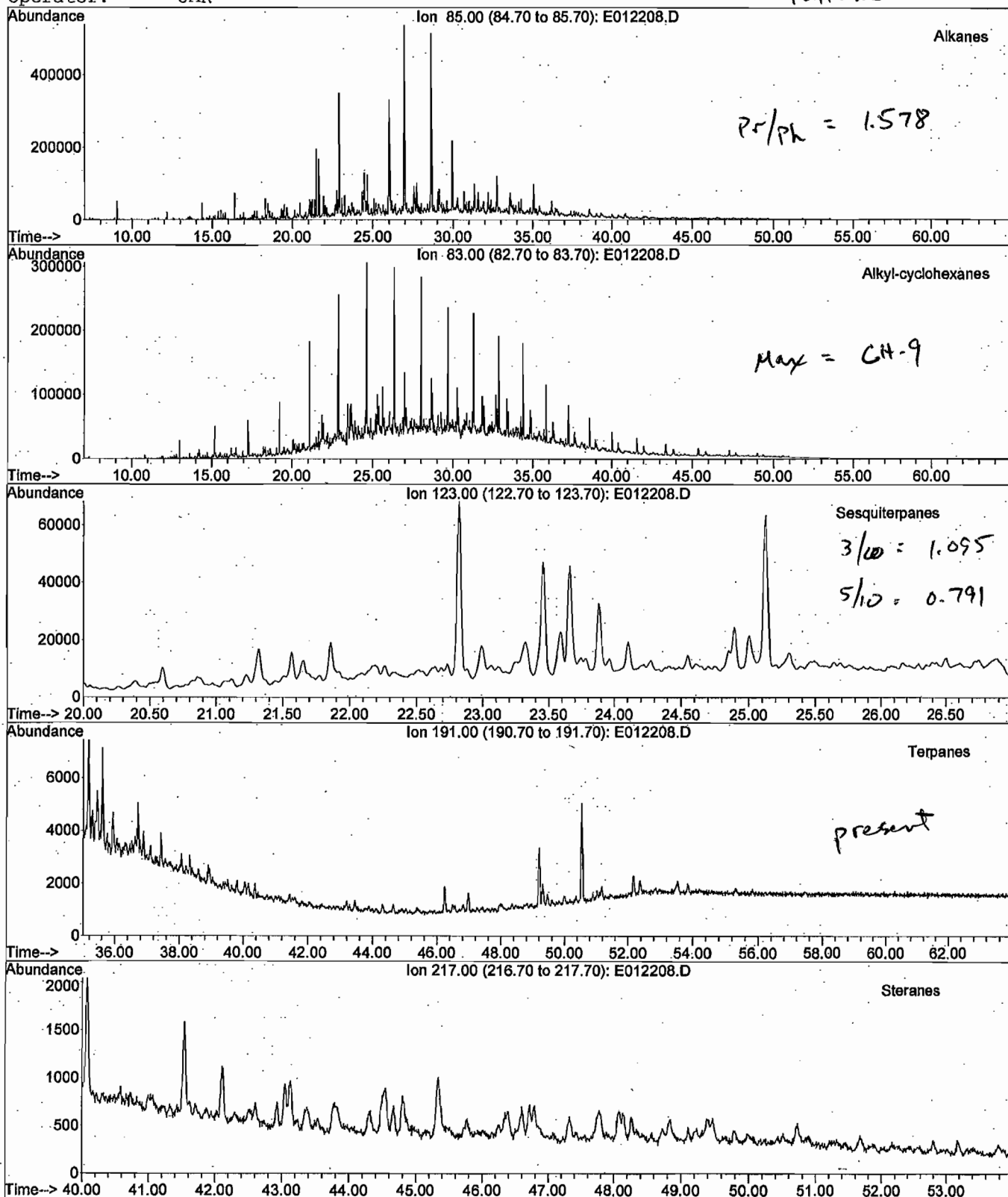


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080122\E012208.D
Date Acquired: 22 Jan 2008 11:27 pm
Method File: 4008SIMT.M
Sample Name: HC080118-02
Misc Info: 0801605-002D
Operator: JAR

H18B-83 (10-15)

Pattern A

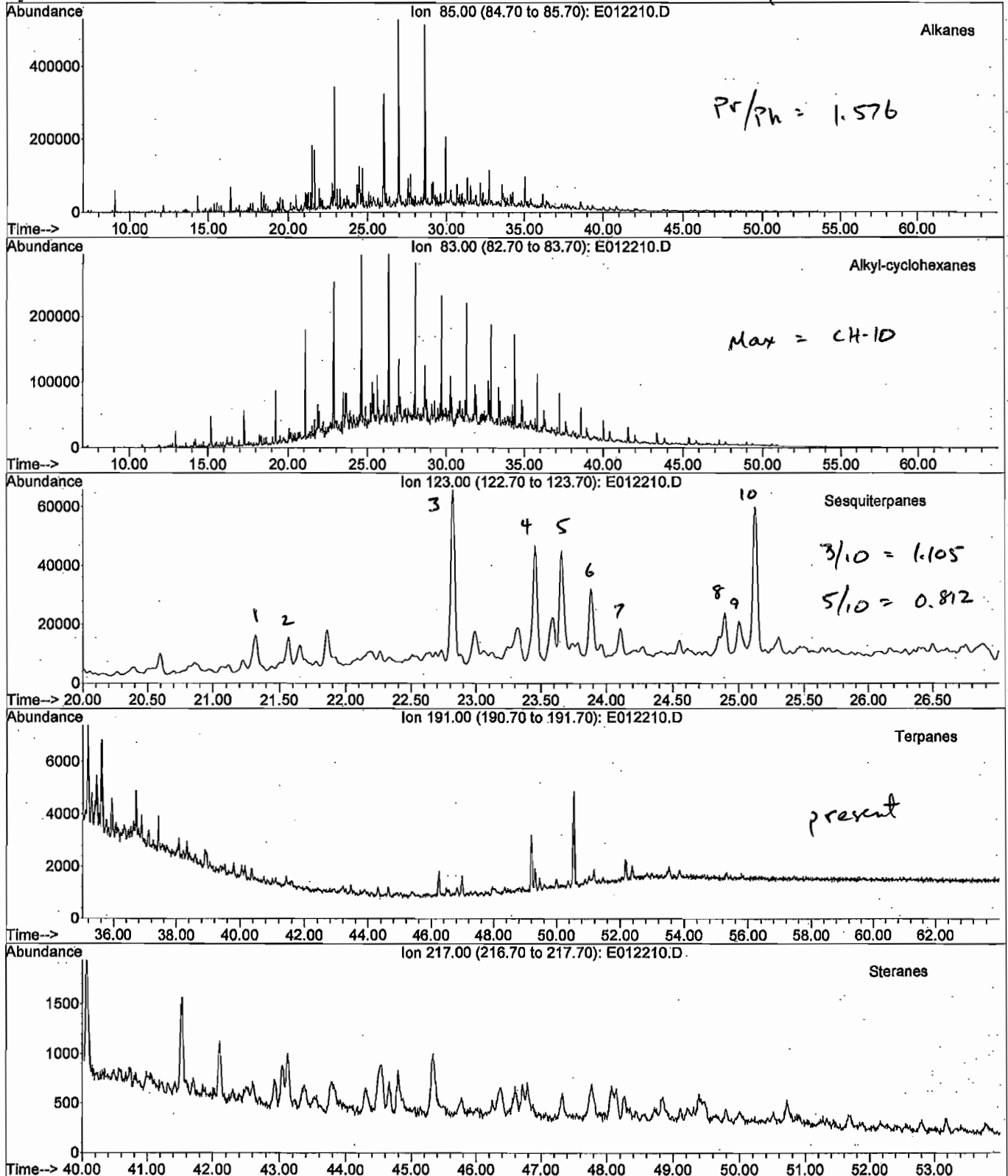


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080122\E012210.D
Date Acquired: 23 Jan 2008 1:56 am
Method File: 4008SIMT.M
Sample Name: HC080118-02DUP
Misc Info: Duplicate of 0801605-002D
Operator: JAR

H15B-83 dup

Pattern A

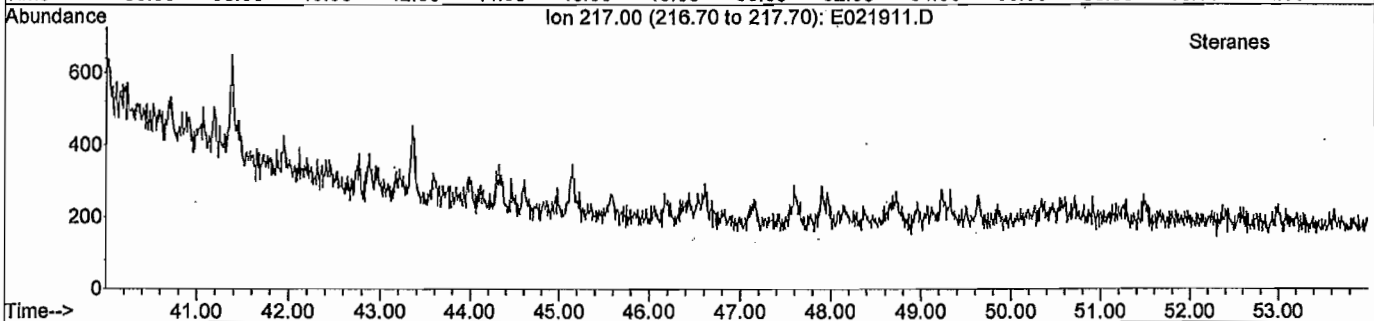
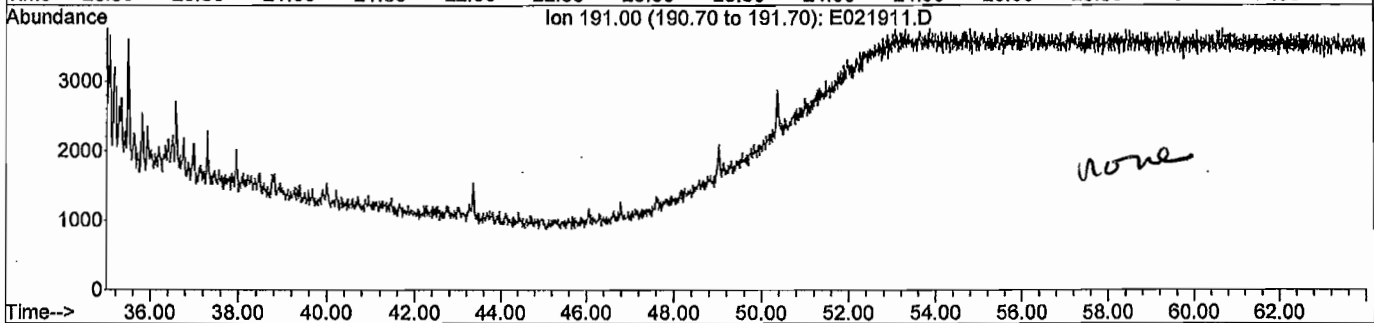
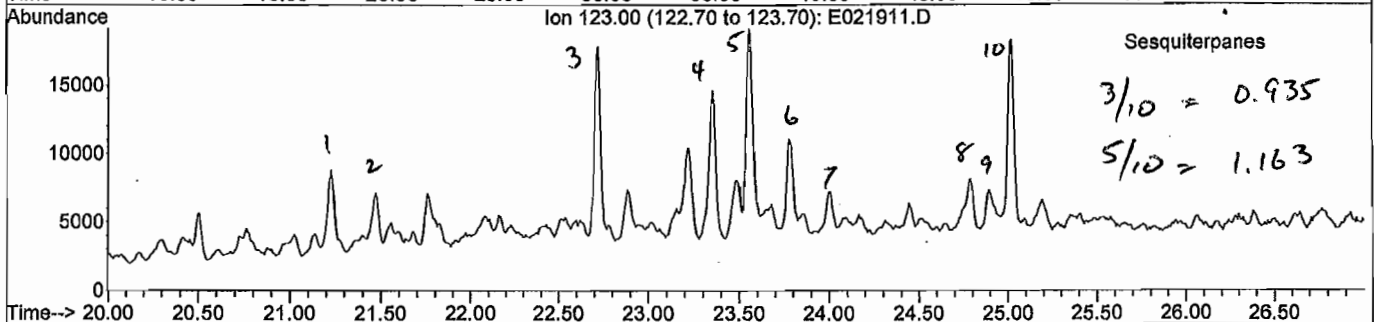
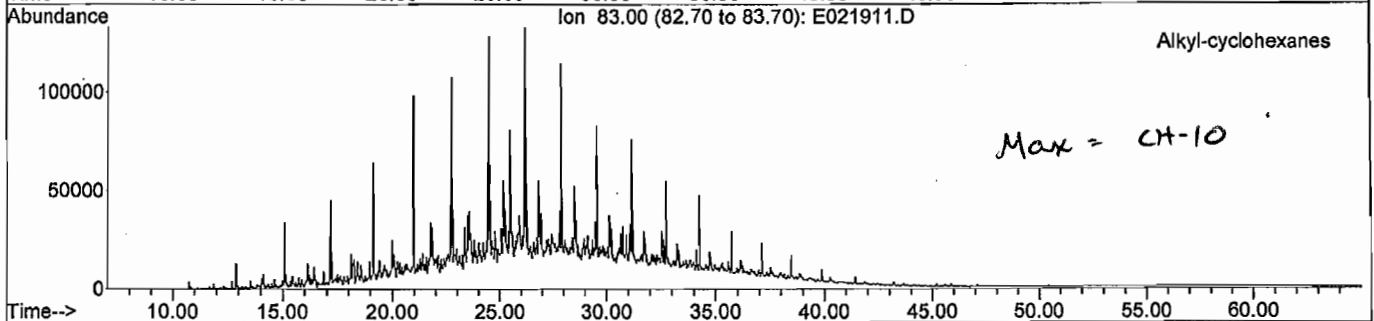
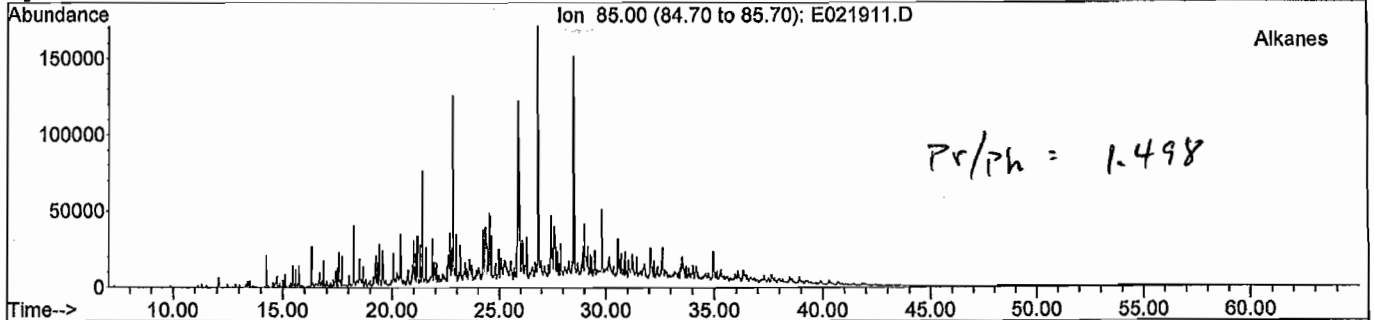


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021911.D
 Date Acquired: 20 Feb 2008 1:14 am
 Method File: 4008SIMT.M
 Sample Name: HC080209-01-D
 Misc Info: 0802315-001D - 10X
 Operator: JAR

OSMW-2 (20-25)

Pattern D

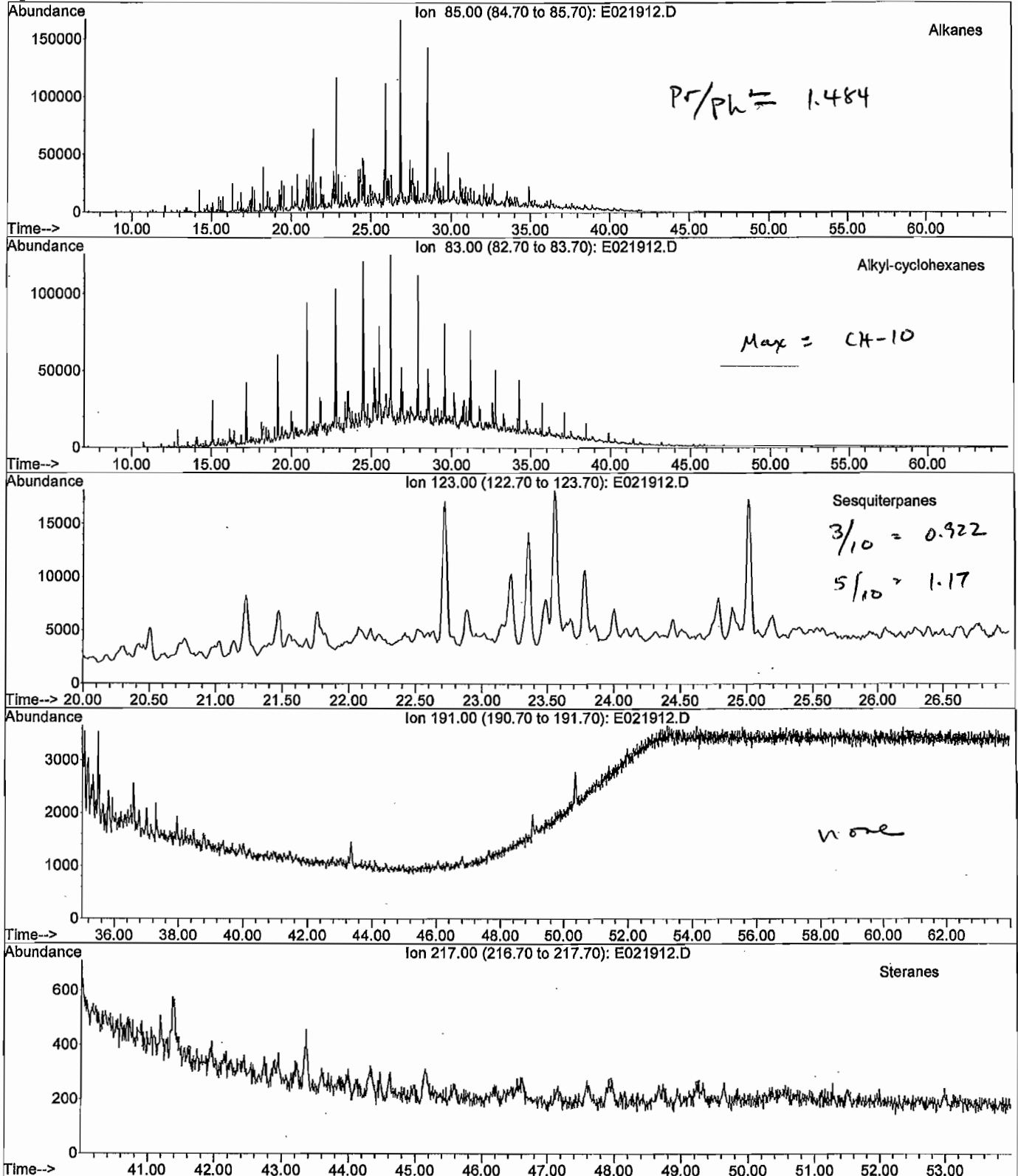


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021912.D
Date Acquired: 20 Feb 2008 2:28 am
Method File: 4008SIMT.M
Sample Name: HC080209-01DUP-D
Misc Info: Duplicate of 0802315-001D - 10X
Operator: JAR

OSMW-2 (20-25) dup

Pattern D

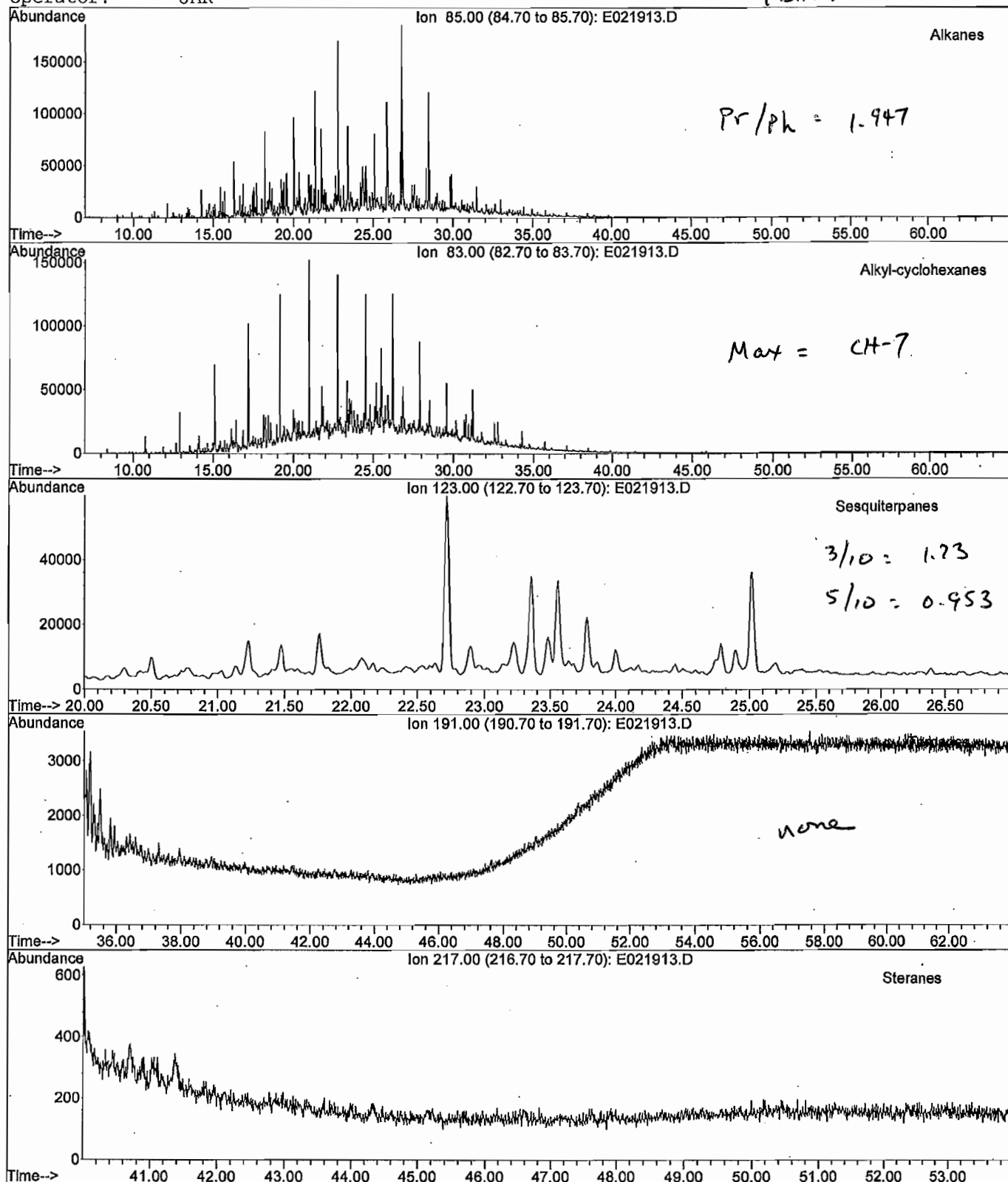


GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021913.D
Date Acquired: 20 Feb 2008 3:42 am
Method File: 4008SIMT.M
Sample Name: HC080209-02-D
Misc Info: 0802315-002D - 10X
Operator: JAR

OSMW-2 (30-35)

Pattern C



GC/MS EXTRACTED ION CHROMATOGRAM

File: J:\1\DATA\E080219\E021914.D

Date Acquired: 20 Feb 2008 4:56 am

Method File: 4008SIMT.M

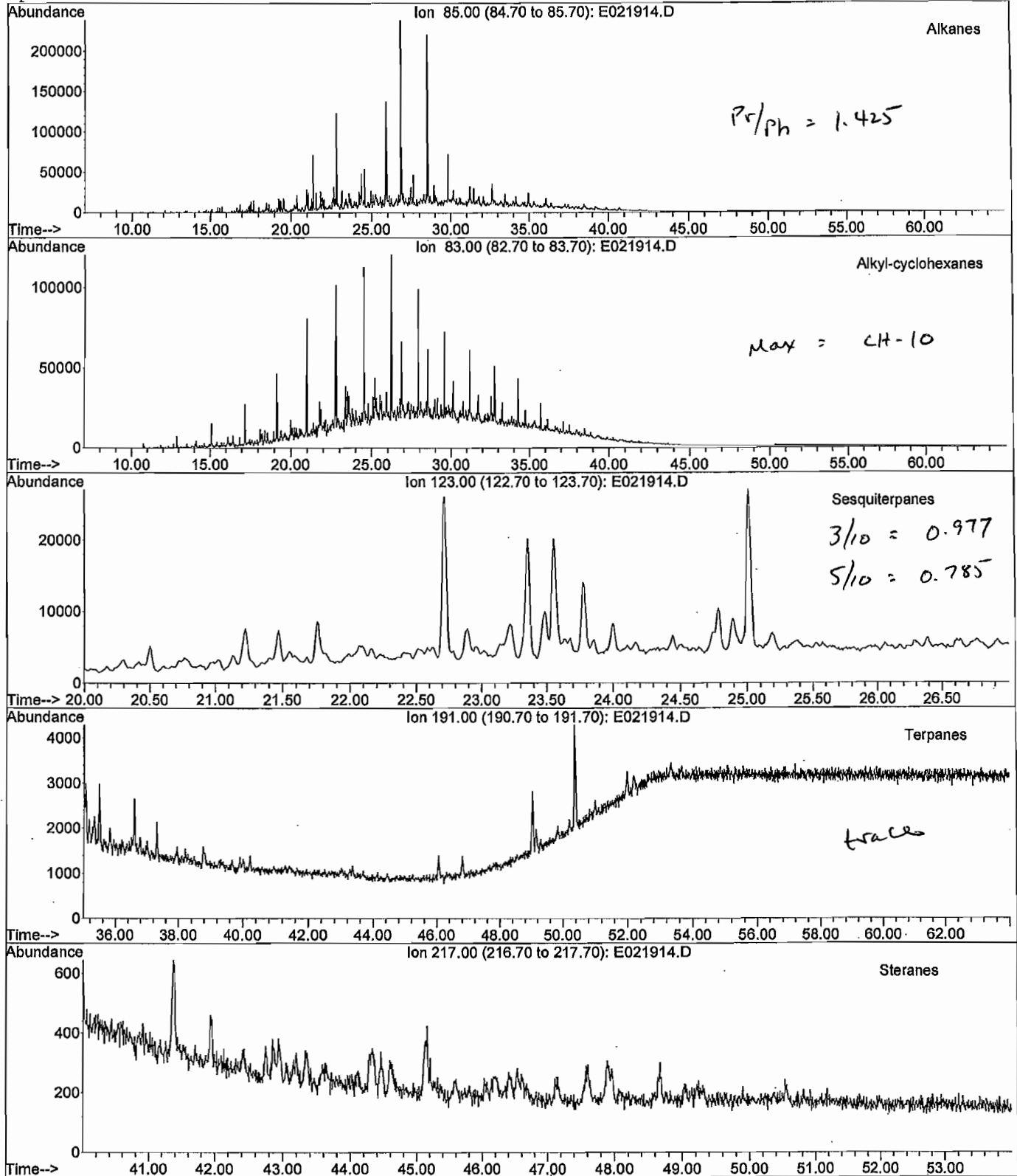
Sample Name: HC080209-03-D

Misc Info: 0802315-003D - 10X

Operator: JAR

OSMW-3 (20-25)

Pattern A



APPENDIX C

SOIL GEOTECHNICAL TEST REPORTS

National Grid Hempstead MGP PDI

LABORATORY TESTING DATA SUMMARY

BORING NO.	SAMPLE NO.	DEPTH (ft)	IDENTIFICATION TESTS						REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	HYDRO. % MINUS 2 μ m (%)	ORGANIC CONTENT (burnoff) (%)	SPECIFIC GRAVITY (-)	
HISB-102		30-34	16.8	SP	2.1				
HISB-102		50-54	18.9	SP	1.3				
HISB-106		35-45	17.7	SP	2.9	1	0.3	2.663	
HISB-106		49-53	18.0	SP	4.7				
HISB-106		65-85	31.0	SP-SM	7.2	2	0.4	2.680	
HISB-106		70-74	36.3	SP-SM	5.4				
HISB-108		50-55	22.0	SP	1.5				
HISB-108		70-75	19.0	SP-SM	6.2				

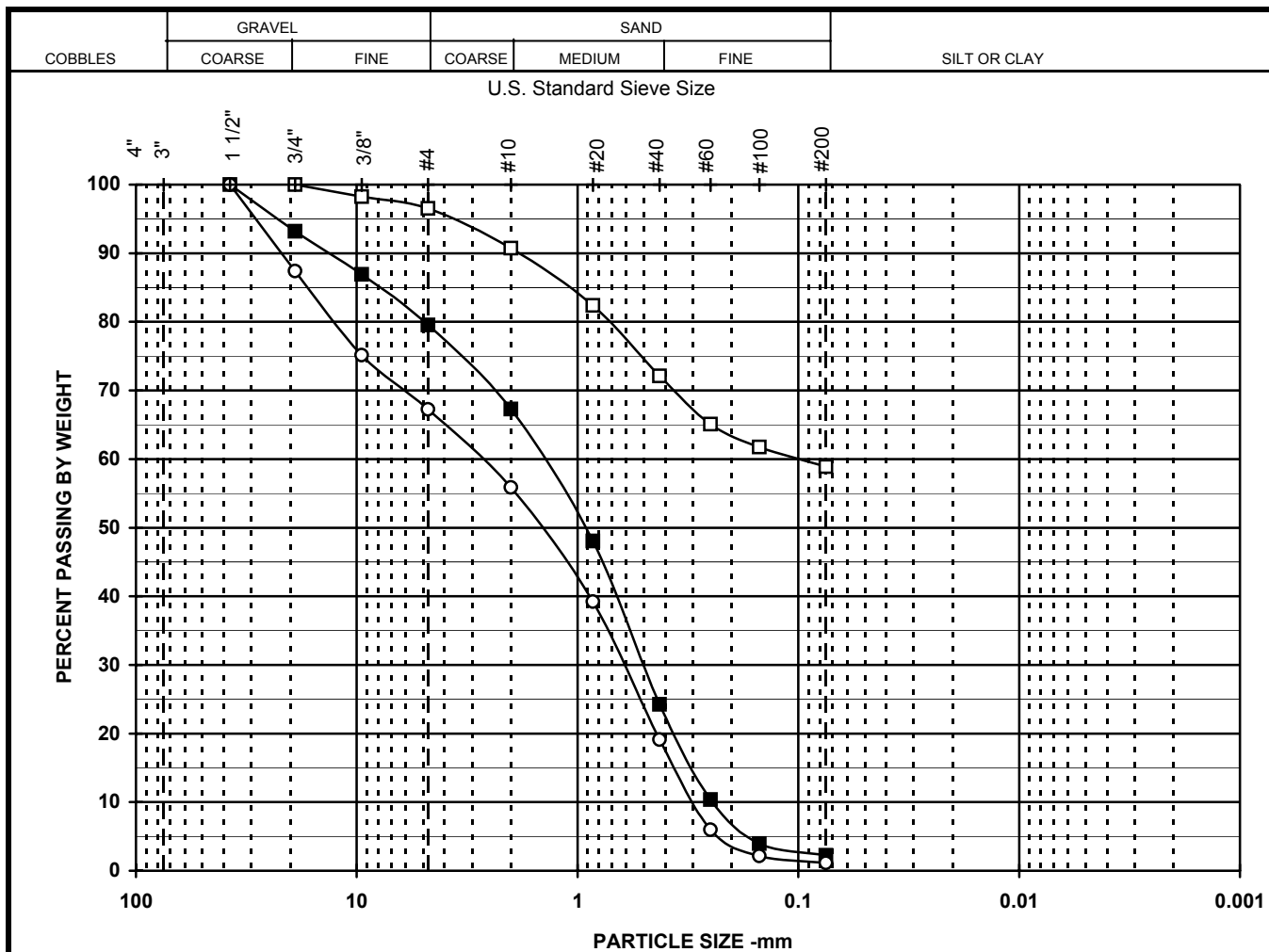
Note: (1) USCS symbol based on visual observation and Sieve reported.

National Grid Hempstead, NY MGP

LABORATORY TESTING DATA SUMMARY

BORING NO.	SAMPLE NO.	DEPTH (ft)	IDENTIFICATION TESTS			REMARKS
			WATER CONTENT (%)	USCS SYMB. (1)	SIEVE MINUS NO. 200 (%)	
GTB-101		4-7	28.6	CL	58.9	
GTB-101		7-20	5.1	SP	2.2	
GTB-101		20-40	7.4	SP	1.1	

Note: (1) USCS symbol based on visual observation and Sieve reported.

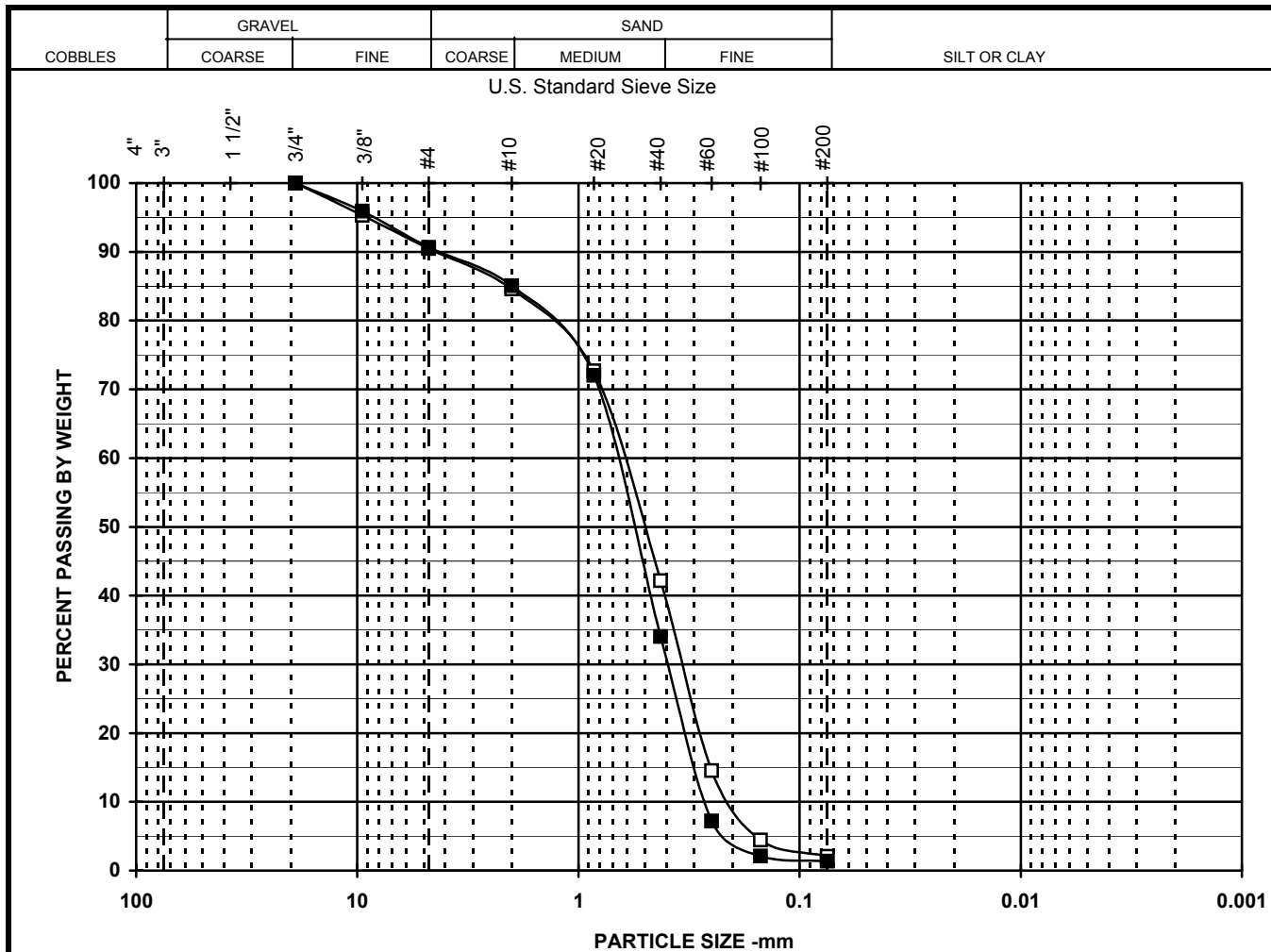


Symbol	□	■	○
Boring	GTB-101	GTB-101	GTB-101
Sample			
Spec			
Depth	4-7	7-20	20-40
% +3"			
% Gravel	3.5	20.5	32.8
% SAND	37.6	77.3	66.1
% FINES	58.9	2.2	1.1
% -2μ			
Cc		0.7	0.5
Cu		6.4	9.9
LL			
PL			
PI			
USCS	CL	SP	SP
w (%)	28.6	5.1	7.4

Particle Size	PERCENT FINER		
(Sieve #)	□	■	○
4"			
3"			
1 1/2"		100.0	100.0
3/4"	100.0	93.2	87.4
3/8"	98.2	86.9	75.2
4	96.5	79.5	67.2
10	90.7	67.3	55.9
20	82.4	48.1	39.2
40	72.1	24.3	19.1
60	65.1	10.4	6.0
100	61.7	4.0	2.2
200	58.9	2.2	1.1

SYMBOL	DESCRIPTION AND REMARKS
□	brownish-black c-f sandy CLAY, trace f. gravel; organics noted.
■	brown c-f SAND, some gravel, trace silt.
○	brown gravelly c-f SAND, trace silt.

PARTICLE SIZE DISTRIBUTION		
National Grid Hempstead, NY MGP		
Project No.		
11175065	October 2008	Figure
URS Corporation		

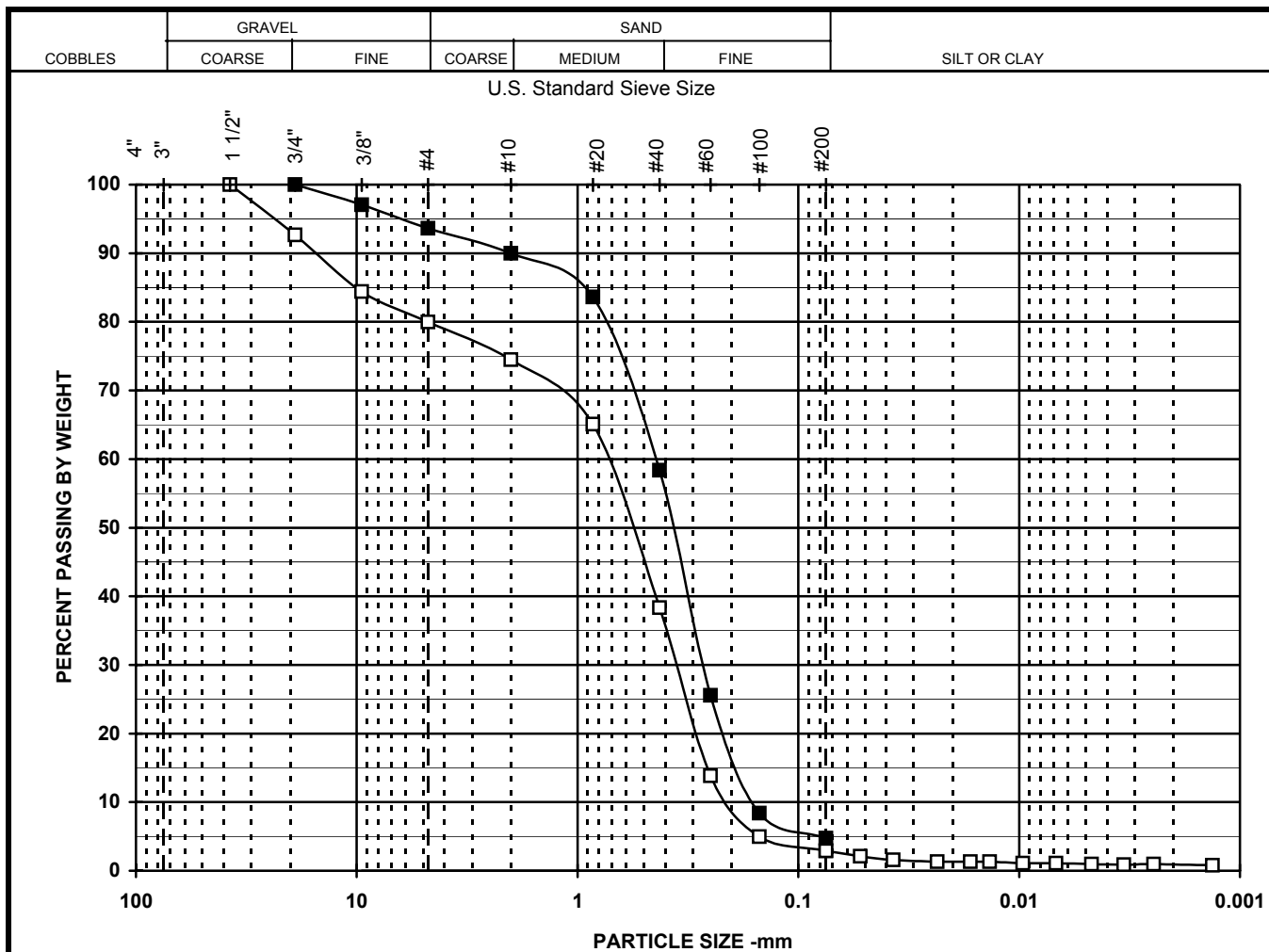


SYMBOL	DESCRIPTION AND REMARKS
□	yellowish brown c-f SAND, trace f. gravel, silt.
■	yellowish brown c-f SAND, trace f. gravel, silt.
○	

Symbol	□	■	○
Boring	HISB-102	HISB-102	
Sample			
Spec			
Depth	30-34	50-54	
% +3"			
% Gravel	9.5	9.4	
% SAND	88.4	89.3	
% FINES	2.1	1.3	
% -2μ			
Cc	0.9	0.8	
Cu	3.3	2.7	
LL			
PL			
PI			
USCS	SP	SP	
w (%)	16.8	18.9	

Particle Size	PERCENT FINER		
(Sieve #)	□	■	○
4"			
3"			
1 1/2"			
3/4"	100.0	100.0	
3/8"	95.3	95.9	
4	90.5	90.6	
10	84.6	85.1	
20	72.7	72.0	
40	42.2	34.1	
60	14.5	7.2	
100	4.5	2.1	
200	2.1	1.3	

PARTICLE SIZE DISTRIBUTION		
National Grid Hempstead MGP PDI		
Project No. 11175065	January 2009	Figure
URS Corporation		

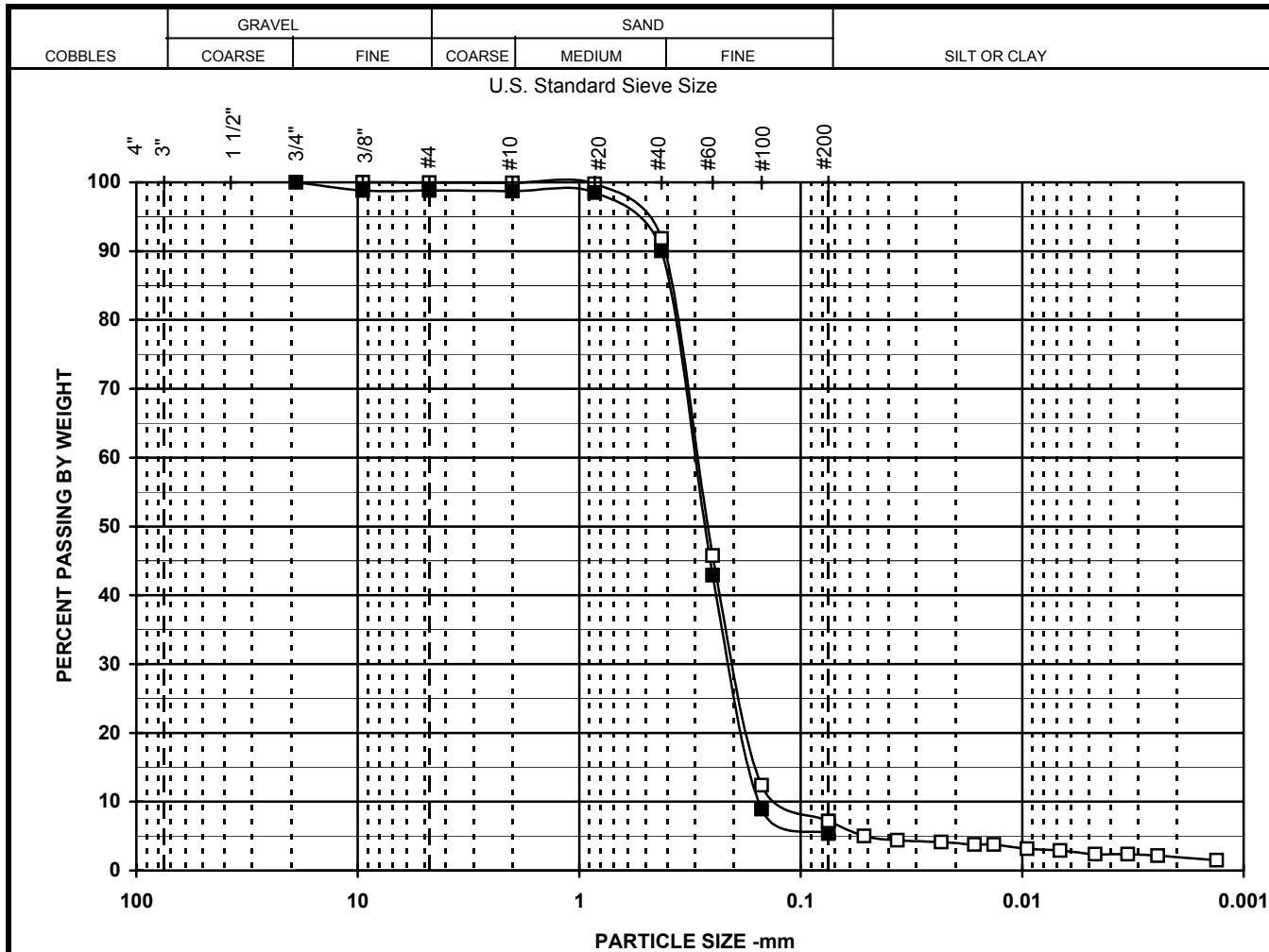


SYMBOL	DESCRIPTION AND REMARKS
□	yellowish brown c-f SAND, some gravel, trace silt.
■	yellowish brown c-f SAND, trace f. gravel, silt.
○	

Symbol	□	■	○
Boring	HISB-106	HISB-106	
Sample Spec			
Depth	35-45	49-53	
% +3"			
% Gravel	20.0	6.4	
% SAND	77.1	88.9	
% FINES	2.9	4.7	
% -2μ	1		
Cc	0.8	1.0	
Cu	3.7	2.8	
LL			
PL			
PI			
USCS	SP	SP	
w (%)	17.7	18.0	

Particle Size	PERCENT FINER		
(Sieve #)	□	■	○
4"			
3"			
1 1/2"	100.0		
3/4"	92.7	100.0	
3/8"	84.4	97.1	
4	80.0	93.6	
10	74.5	90.0	
20	65.1	83.6	
40	38.3	58.4	
60	13.8	25.6	
100	4.9	8.4	
200	2.9	4.7	

PARTICLE SIZE DISTRIBUTION		
National Grid Hempstead MGP PDI		
Project No.		
11175065	January 2009	Figure
URS Corporation		

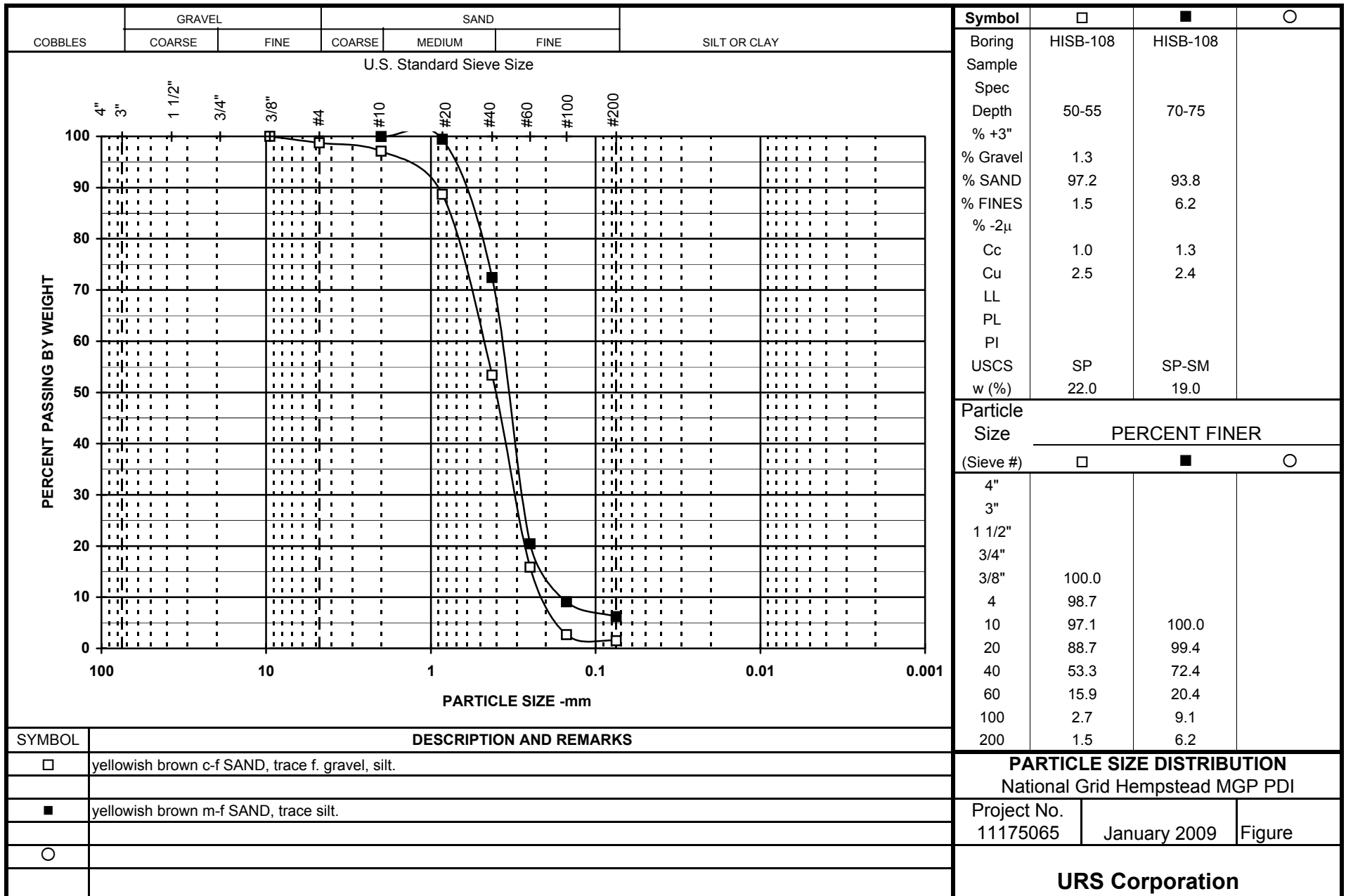


Symbol	□	■	○
Boring	HISB-106	HISB-106	
Sample			
Spec			
Depth	65-85	70-74	
% +3"			
% Gravel	0.1	1.2	
% SAND	92.7	93.4	
% FINES	7.2	5.4	
% -2μ	2		
Cc	1.2	0.9	
Cu	2.6	2.0	
LL			
PL			
PI			
USCS	SP-SM	SP-SM	
w (%)	31.0	36.3	

Particle Size	PERCENT FINER		
(Sieve #)	□	■	○
4"			
3"			
1 1/2"			
3/4"		100.0	
3/8"	100.0	98.8	
4	99.9	98.8	
10	99.9	98.7	
20	99.8	98.5	
40	91.8	90.0	
60	45.7	42.9	
100	12.4	8.9	
200	7.2	5.4	

SYMBOL	DESCRIPTION AND REMARKS
□	yellowish brown f. SAND, trace m. sand, silt.
■	yellowish brown f. SAND, trace f. gravel, m. sand, silt.
○	

PARTICLE SIZE DISTRIBUTION		
National Grid Hempstead MGP PDI		
Project No.		
11175065	January 2009	Figure
URS Corporation		



APPENDIX D

HYDRAULIC CONDUCTIVITY TEST RESULTS

Calculation Cover Sheet

Project Name:	National Grid	Project Number:	11175065, 00011
Project Location:	Hempstead, NY	Client Name:	National Grid
PM Name:	Thomas Plante / Mike Akerbergs	PIC Name:	Jack Wilcox

This section is to be completed by the Project Manager.

Assigned Checker: Frederik Schuele

Calculation to be checked: Conductivity Tests - Feb 2009 test

Calculation Originator: Matthew Reiter / Jason Currier

Checker's comments required by: 3/3/09

Submitted by: _____

Project Manager Signature

_____ Date

This Section is to be completed by the Checker.

Check box A or B:

A. ☒ All items have been found to be correct. Checker has no comments.

Checker Signature

3/3/09
Date

or

B. ☐ Checker's comments have been provided on:

☐ Calculation

☐ Comment and Disposition Form (Form 3-5 (MM))

☐ Other _____

This section is to be completed after verification of comment incorporation, if box B is checked off above.

Check box C or D and E:

C. ☐ Back-check of Checker's comments has been performed by Originator AND all issues have been resolved between Originator and Checker.

or

D. ☐ Unresolved issues have been submitted to the Project Manager, Principal-in-Charge or designee for resolution.

and

E. ☐ Verification of correct incorporation of resolved comments into final document is complete.

Checker Signature

_____ Date

APPROVAL AND DISTRIBUTION

To be signed after box A or E are completed.

☐ The Calculation Check has been completed. Any significant issues not resolved between the Checker and the Originator have been resolved by the Approver.

Project Manager, Principal-in-Charge or Designee Signature

_____ Date

Distribution:

Project Central File - Quality folder

Summary of Hydraulic Conductivity Estimates
Former MGP Site
Hempstead, New York

S
I
D

Well ID	Screened In	Screened Material	Geometric Mean of K (ft/day)	Recalculated Geometric Mean of K (ft/day)	Geometric Mean of February K Results (ft/day)
HIMW-001S	Glacial Sediments	26-28' Light brown, f-m SAND, hydrocarbon-like odor, slight black staining, loose, moist 28-30' Brown, f-m SAND, NAPL saturated, hydrocarbon-like odor, stained, loose, moist Brown very fine SAND, intermittent staining, hydrocarbon-like odor, med dense 30-32' Brown v. fine-fine SAND w/ f. gravel, hydrocarbon-like odor, sl br staining 32-34' Light brown, f-m SAND, hydrocarbon-like odor, loose, wet 34-36' Light brown, f-c SAND w/ f-c gravel, slight hydrocarbon-like odor, loose, wet	5.4	71.4	--
HIMW-002D	Upper Magothy	104-106' Grayish orange to pale-dark yellowish orange, m. SAND, micaceous, thinly bedded dk yellowish brown, micaceous clay, wet 106-108' Yellowish gray-dark yellowish orange, medium SAND, micaceous, wet 108-112' Gray orange-dk yellow orange-lt brown-med red brown, m-c SAND w/ some mica, thinly bedded dk yellowish brown clay, wet 112-114' Mod yellow br-lt br-dk yellow orange, f-c SAND w/ some silt, tr clay, wet	4.4	40.8	121.9
HIMW-002I	Upper Magothy	78-84' Light brown-orange brown, f SAND, medium dense, wet 84-88' Light brown-orange brown, fine SAND w/some silt, m. dense, wet	5.7	38.9	94.0
HIMW-002S	Glacial Sediments	28-32' Dark yellowish orange brown and light brown, m- v. coarse SAND w/ f-c gravel, trace silt, some mica Moderate-light brown, m-c SAND, some mica, wet 32-36' Moderate brown-dark yellowish orange, v coarse-coarse SAND w/ f-m gravel, wet 36-38' Grayish yellow- dark and moderate yellowish brown, medium SAND w/ some v. coarse sand and f. gravel, micaceous	20.4	85.4	--
HIMW-003D	Upper Magothy	133-136' Brown to gray, f. sandy SILT w/ some banding, soft, slightly plastic, wet 136-143' Light brown to orange-brown, silty f. SAND w/ banding, dense, wet	6.7	32.6	88.0
HIMW-003I	Upper Magothy	80.5-82' Brown, f. sandy SILT, semi-hard, non-plastic, black banding, wet 82-90' Brown, f. sandy SILT w/ brown, black and gray banding, soft, slightly plastic, wet 90-90.5' Brown silty f. SAND w/ banding (orange-brown-black-gray), liquid to m. dense	0.8	23.6	66.0
HIMW-003S	Glacial Sediments	23-24' Orange-brown, f-m SAND w/ some c. sand and f. gravel, loose, dry 24-26' Brown, fine SAND, m. dense, wet 26-28' Brown, f. SAND w/ some medium sand, m. dense, wet 28-30' Brown, very f-c SAND w/ some f. gravel at 28.5', medium dense, wet 30-32' Brown-orange, f-c SAND w/ some f. gravel, m. dense, wet 32-33' Orange-brown, f-c SAND w/ some f. gravel, m. dense, wet	20.9	42.5	150.5
HIMW-008D	Upper Magothy	102-104' Light gray and dark yellowish orange, fine-medium SAND w/ some mica, trace silt, wet 104-106' Light gray, yellowish gray and dark yellowish orange, medium SAND w/ some mica, trace silt, striated, wet 106-108' Dark yellowish orange and moderate yellowish brown, medium-coarse SAND w/ some mica, wet 108-110' Moderate yellowish brown and dark yellowish orange, coarse SAND w/ some mica, wet 110-112' Mod yellowish br, med SAND w/ some mica, trace and pockets of clay, wet Mod yellowish br, medium-coarse SAND w/ some mica, trace clay, wet	--	--	103.3

cm/sec

4.3x10⁻²
cm/sec
3.3x10⁻²

3.1x10⁻²
2.33x10⁻²
3.8x10⁻²

5.3x10⁻²

3.65x10⁻²

Summary of Hydraulic Conductivity Estimates
Former MGP Site
Hempstead, New York

Well ID	Screened In	Screened Material	Geometric Mean of K (ft/day)	Recalculated Geometric Mean of K (ft/day)	Geometric Mean of February K Results (ft/day)
HIMW-008I	Upper Magothy	63-64' Yellowish gray CLAY w/ f-c sand and gravel, very soft, wet 64-66' Yellowish gray, sandy CLAY w/ f. gravel, soft, wet Light gray f. SAND w/ some mica, trace silt, wet 66-68' Light and yellowish gray f. SAND w/ some mica, trace silt and clay, wet 68-70' Light gray, f-m SAND w/ some silt and mica, banding of pale yellowish orange-dk gray sand, wet 70-72' No recovery 72-73' Light gray-yellowish gray and dk yellowish orange, f-m SAND, wet	24.5	46.5	--
HIMW-008S	Glacial Sediments	25-26' Grayish orange-moderate yellowish brown, clayey f-m SAND w/ some silt, trace very coarse sand 26-28' Grayish orange, silty f-m SAND w/ little clay and some mica, wet 28-30' Moderate yellow brown, silty f. SAND w/ some clay, micaceous, wet Yellow orange, c. SAND w/ thin bed of yellow brown sandy clay, wet 30-32' Moderate yellowish brown, m-c SAND w/ some mica trace v. coarse gravel, thinly bedded yellow brown sandy clay, wet 32-34' Mod yellow brown yellow orange, med-v. coarse SAND w/ some f. gravel, wet 34-35' Mod yellowish brown, coarse SAND w/ f. gravel, naphthalene-like odor, wet	17.0	35.3	133.4
HIMW-012D	Upper Magothy	117' Dark gray sandy CLAY, micaceous 120-122' Gray orange-yellow orange, m-c SAND, micaceous, trace silt, wet Dark gray f. SAND w/ lignite and some clay, micaceous, dry 125-127' Mod yellow brown, m- very coarse SAND w/ f gravel, some mica, wet Lt yellow brown-red brown-dk yellow orange, med SAND, micaceous, wet	0.4	18.2	59.5
HIMW-012I	Upper Magothy	63-65' Not sampled (60-62' Dark yellowish orange, m. SAND w/ some mica, wet) 65-67' Dark yellow orange, clayey f-m SAND w/ f. gravel, some mica, wet Grayish orange, coarse SAND w/ some mica, wet 70-72' Dark yellowish orange, clayey c. SAND w/ some mica, wet 72-73' Not sampled	40.3	70.2	--
HIMW-012S	Glacial Sediments	22-24' Moderate-dk yellowish brown, m-c SAND w/ some f. gravel and mica, wet 24-26' Moderate yellowish brown, coarse-v. coarse SAND w/ some f. gravel, wet Dark yellowish orange, m-v. coarse SAND, some f. gravel 26-28' Moderate yellowish brown m-c SAND w/ some very coarse sand and f. gravel, wet 28-30' Dark yellowish brown-dark yellowish orange, coarse-v. coarse SAND w/ f. gravel, trace silt, wet 30-32' Lt. brown-yellowish brown yellowish orange, coarse SAND w/ some mica, wet	22.8	71.2	204.1
HIMW-013D	Upper Magothy	110-112' Mod brown, m. SAND w/ some mica, trace f. gravel, wet Dk yellowish orange, m-c SAND w/ some mica, wet 115-117' Dark yellowish orange, m-c SAND w/ some mica, wet Mod brown, c. SAND w/ trace clay 120' Mod-dk yellow brown, clayey med-v. coarse SAND w/ trace f. gravel, little mica, pockets of dk yellow orange clay	33.0	72.5	--
HIMW-013I	Upper Magothy	70-72' Moderate yellowish brown, coarse- v. coarse SAND w/ f. gravel, wet 75-77' Moderate yellowish brown, m- very coarse SAND, little f. gravel, trace coarse gravel, mica, wet 80' Moderate yellowish brown, c. SAND w/ little f. gravel and mica, wet	19.7	43.5	--
HIMW-013S	Glacial Sediments	38-40' Not sampled 40-42' Mod yellowish brown, coarse-v. coarse SAND w/ f-c gravel, wet Dark yellowish orange, m. SAND w/ little mica 45-47' Moderate brown, coarse-v. coarse SAND w/ f. gravel, wet Dk yellowish orange, c. SAND w/ some very coarse sand and f. gravel, wet 47-48' Not sampled	23.6	54.4	172.4

4.7×10^{-2}

2.1×10^{-2}

7.2×10^{-2}

6.09×10^{-2}

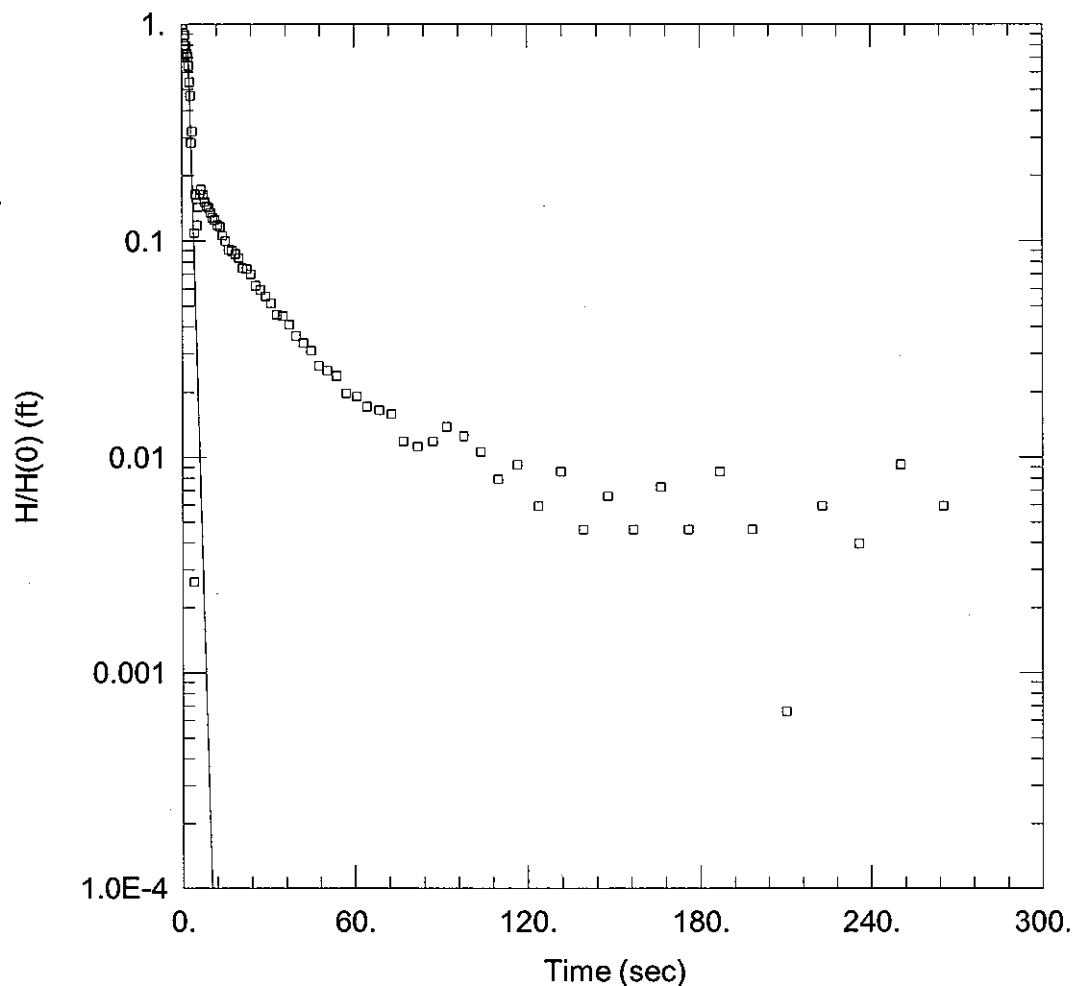
Summary of Hydraulic Conductivity Estimates
Former MGP Site
Hempstead, New York

Well ID	Screened In	Screened Material	Geometric Mean of K (ft/day)	Recalculated Geometric Mean of K (ft/day)	Geometric Mean of February K Results (ft/day)
HIMW-014D	Upper Magothy	140-142' Dk brown CLAY, v. dense, slightly plastic, moist Orange-brown to gray to dk brown, silty clayey f. SAND, finely laminated, soft, plastic 145-147' Tan, f. SAND w/ some m. sand, some gray and orange brown stringers, loose, wet 150' Tan-br to orange-br, f SAND w/trace m sand, semi-loose, wet	30.5	53.8	--
HIMW-014I	Upper Magothy	85-87' Orange brown, silty v. fine-fine SAND, dense, naphthalene-like odor 90-92' Brown, v. fine-fine SAND w/ some silt, med dense, slight naphthalene-like odor 95' Orange brown SAND w/ silt, black silty laminations, dense, slight naphthalene-like odor, wet	24.6	62.7	--
HIMW-015D	Upper Magothy	141.5-142' Gray, silty v fine SAND w/ black striations, mica flakes, m dense 145-147' Gray, v fine SAND w/ mica flakes, semi-dense, wet 150-151.5' Gray, v fine SAND w/ mica flakes, semi-dense, wet	2.0	54.7	135.1
HIMW-015I	Upper Magothy	80-82' Yellow-br-tan, v fine SAND with dk br clay/silt laminations/striations, m dense, moist 85-87' Yellow-br, silty clayey v fine SAND, soft, plastic, slight odor, v moist Orange-brown to tan to brown, v fine-fine SAND, loose, slight odor, moist 90' Yellow-br-tan, v fine SAND w/ laminations, some silt clay, m dense, wet	1.8	53.9	172.6
HIMW-019S	Glacial Sediments	No log available	14.6	45.4	--
MW-20I	Upper Magothy	No log available	--	--	134.0
MW-20S	Upper Magothy	No log available	--	--	141.8
Notes: = well recommended for slug test					

21 total
87 mg
65 kg

14 wells retested

Monitoring Well	DTW	Difference between measuring point and ground surface	DTW from ground surface	DTB	Saturated Thickness
MW-2D	27.98	-2.4	25.58	114	88.42
MW-2I	21.77	-2.4	19.37	88	68.63
MW-3D	20.05	0.62	20.67	143	122.33
MW-3I	19.34	0.62	19.96	90.5	70.54
MW-3S	19.06	0.62	19.68	33	13.32
MW-8D	20.1	0.41	20.51	112	91.49
MW-8S	20.18	0.41	20.59	35	14.41
MW-12D	19.57	0.27	19.84	127	107.16
MW-12S	17.91	0.27	18.18	32	13.82
MW-13S	31.15	0.42	31.57	48	16.43
MW-15D	26.78	0.4	27.18	151.5	124.32
MW-15I	25.42	0.4	25.82	90	64.18
MW-20I	25.83	0	25.83	73	47.17
MW-20S	25.98	0	25.98	35	9.02



MW-2D FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 2D Falling 4 (B-R).aqt

Date: 03/03/09

Time: 11:02:34

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 88.42 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2D)

Initial Displacement: 1. ft

Static Water Column Height: 88.42 ft

Total Well Penetration Depth: 88.42 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

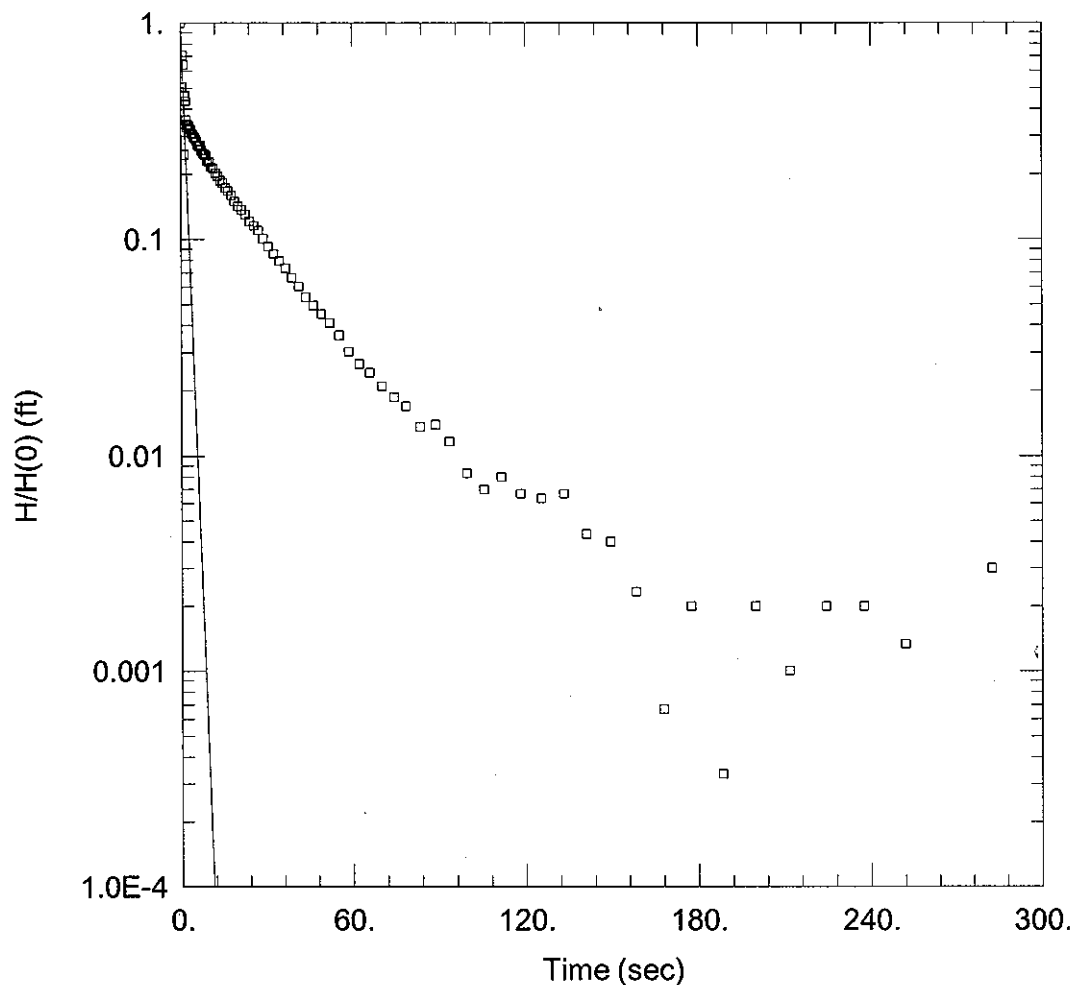
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 138.7 ft/day

y0 = 10.21 ft



MW-2D RISING HEAD TEST (4' SLUG)

Data Set: P:\...\MW 2D Rising 4 (B-R).aqt

Date: 03/03/09

Time: 11:02:37

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 88.42 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2D)

Initial Displacement: 1. ft

Static Water Column Height: 88.42 ft

Total Well Penetration Depth: 88.42 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

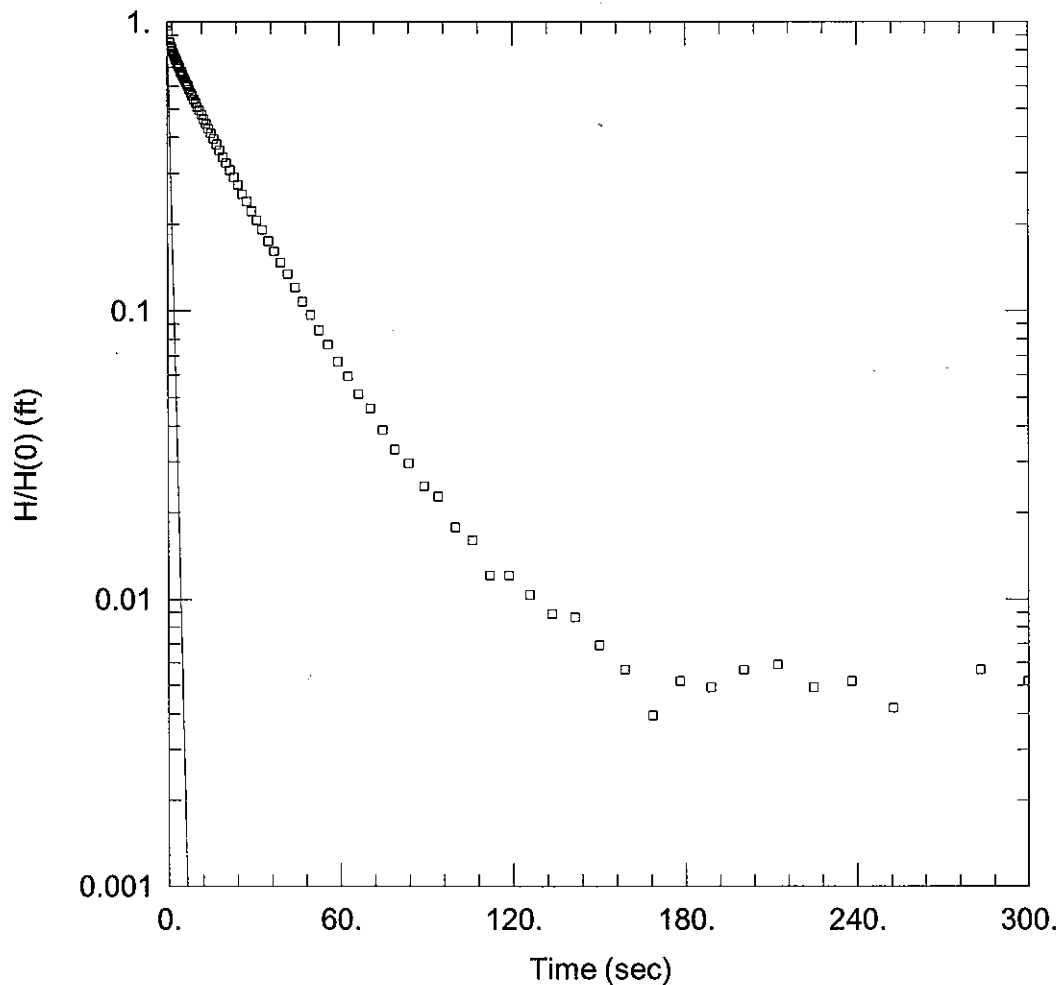
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 99.42 ft/day

y0 = 1. ft



MW-2D RISING HEAD TEST #2 (4' SLUG)

Data Set: P:\...MW 2D Rising #2- 4 (B-R).aqt

Date: 03/03/09

Time: 11:02:40

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 88.42 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2D)

Initial Displacement: 1. ft

Static Water Column Height: 88.42 ft

Total Well Penetration Depth: 88.42 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

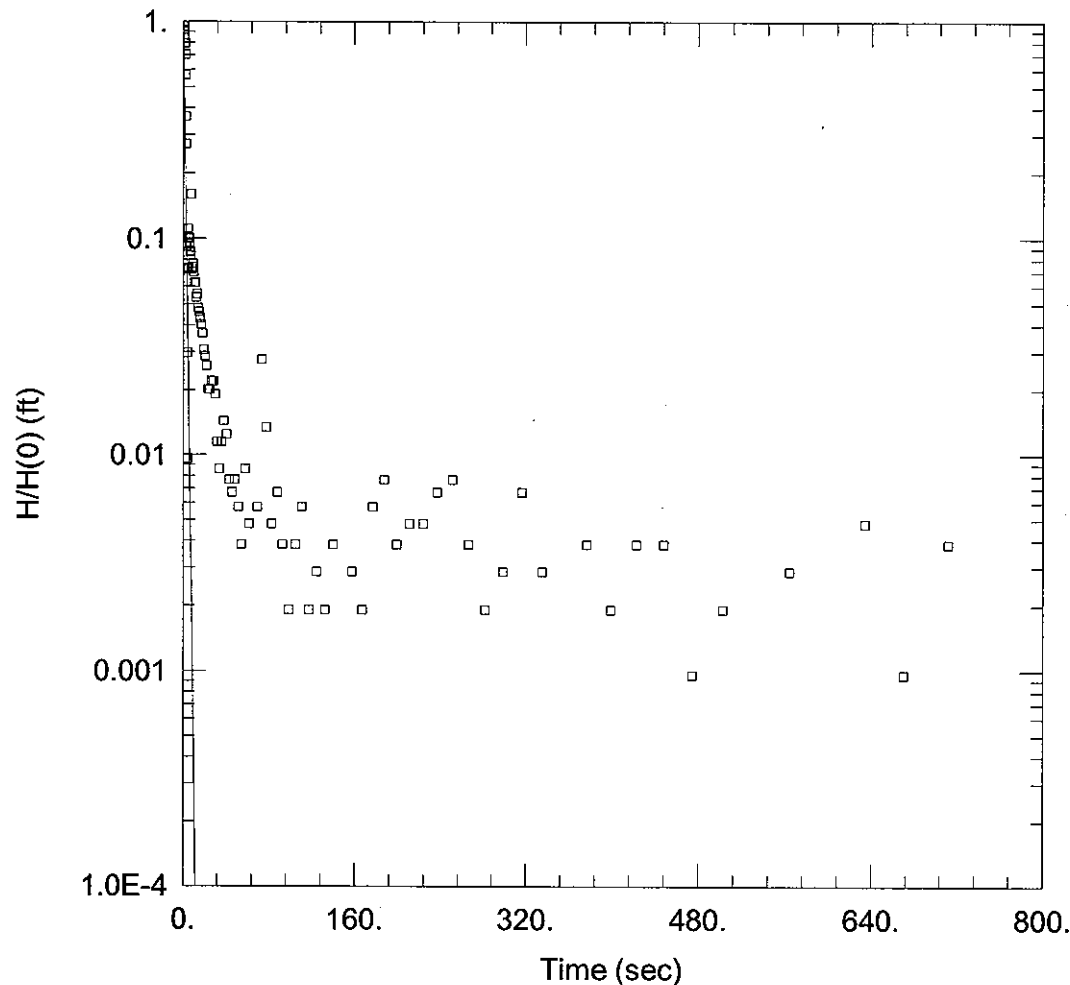
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 131.3 ft/day

y0 = 1.123 ft



MW-2I FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 2I Falling 4 (B-R).aqt

Date: 03/03/09

Time: 11:03:00

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2I

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 68.63 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2I)

Initial Displacement: 1. ft

Static Water Column Height: 68.63 ft

Total Well Penetration Depth: 68.63 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

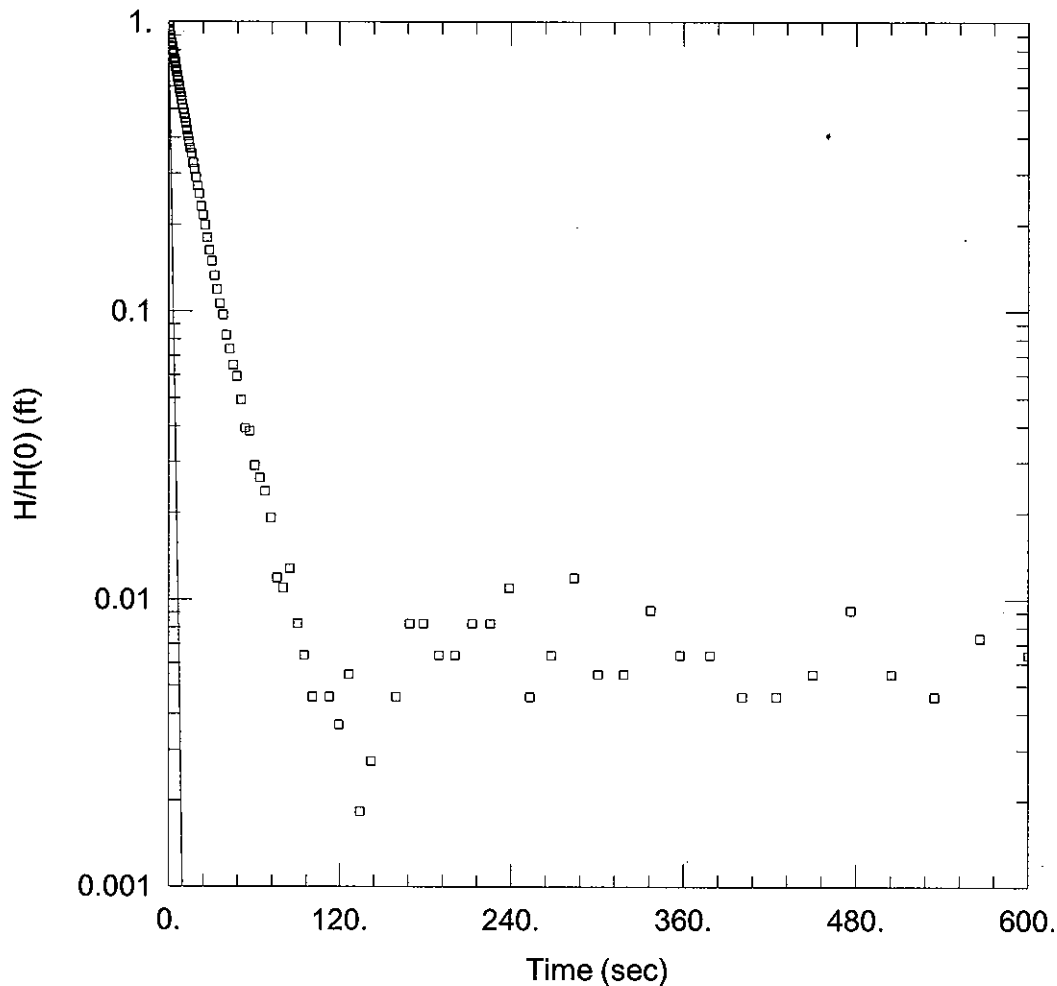
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 94.32 ft/day

y0 = 1.235 ft



MW-2I RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 2I Rising 4 (B-R).agt

Date: 03/03/09

Time: 11:03:03

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2I

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 68.63 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2I)

Initial Displacement: 1. ft

Static Water Column Height: 68.63 ft

Total Well Penetration Depth: 68.63 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

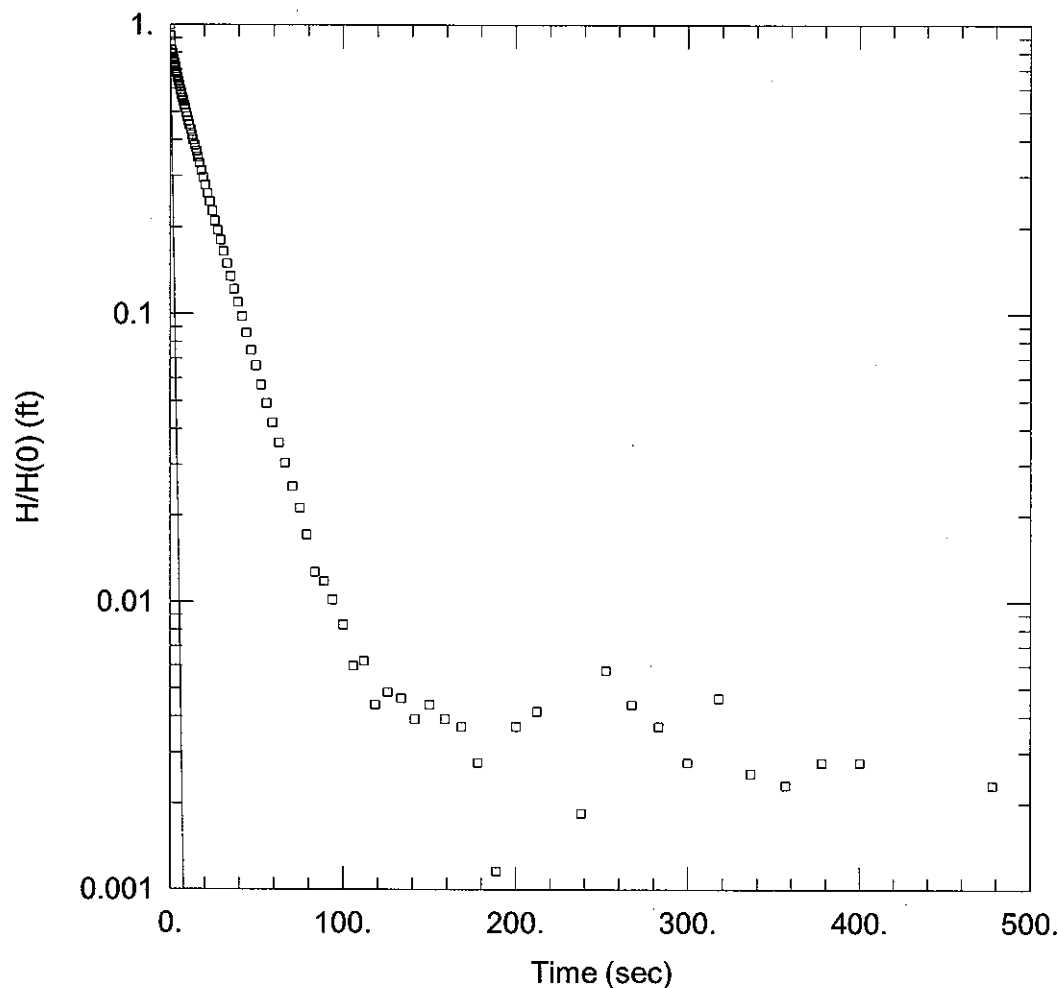
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 84.29 ft/day

y0 = 1.152 ft



MW-2I RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 2I Rising 7 (B-R).aqt

Date: 03/03/09

Time: 11:03:07

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-2I

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 68.63 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-2I)

Initial Displacement: 1. ft

Static Water Column Height: 68.63 ft

Total Well Penetration Depth: 68.63 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

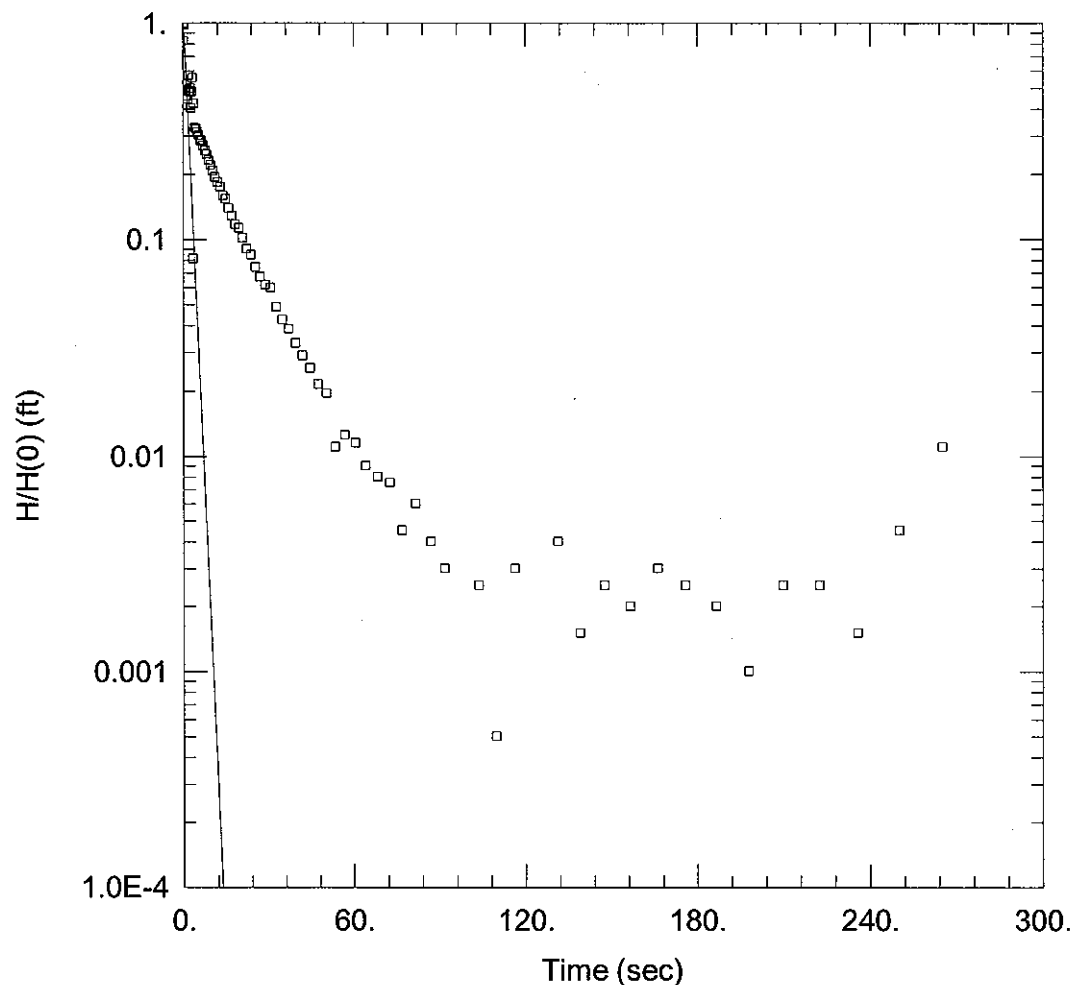
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 104.4 ft/day

y0 = 1.155 ft



MW-3D FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 3D Falling 4 (B-R).agt

Date: 03/03/09

Time: 11:03:26

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 122.3 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3D)

Initial Displacement: 1. ft

Static Water Column Height: 122.3 ft

Total Well Penetration Depth: 122.3 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

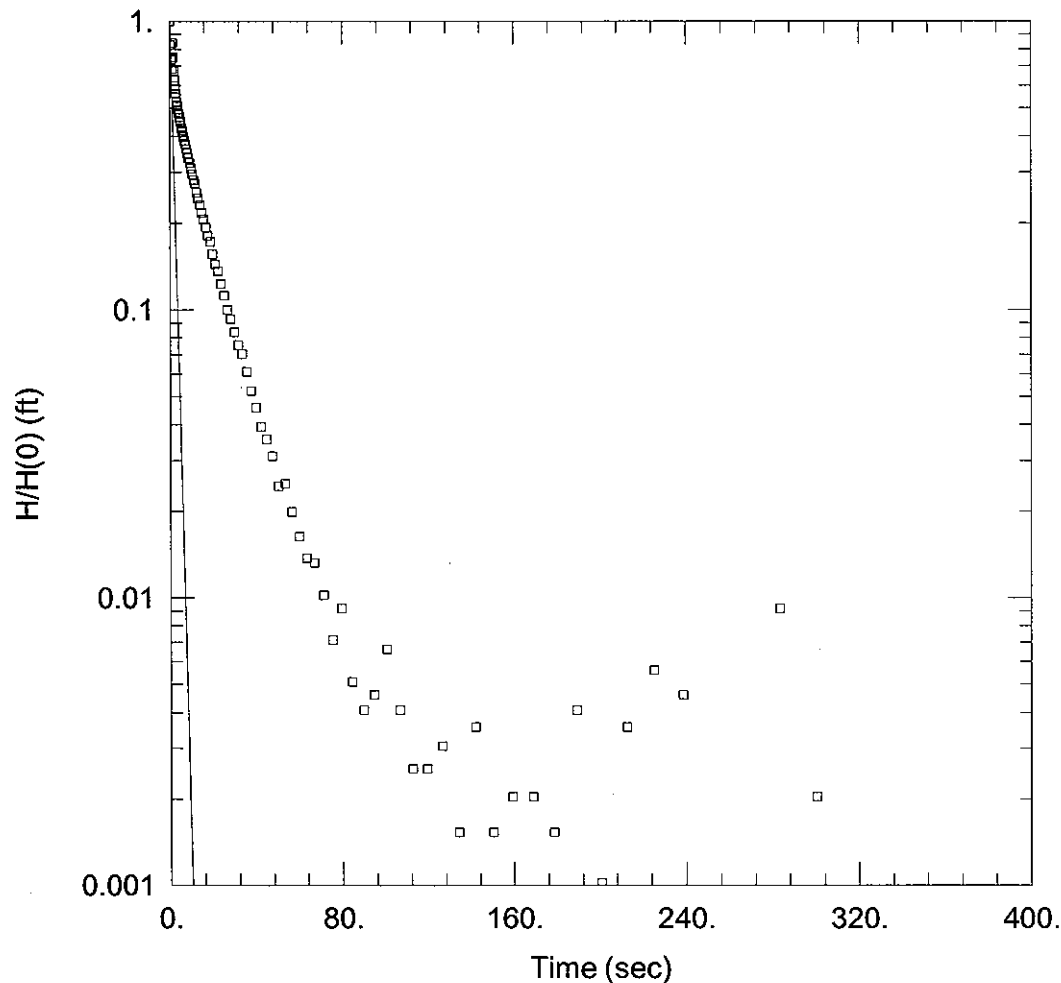
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 86.88 ft/day

y0 = 1.216 ft



MW-3D RISING HEAD TEST (4' SLUG)

Data Set: P:\...\MW 3D Rising 4 (B-R).aqt

Date: 03/03/09

Time: 11:03:32

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 122.3 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-3D)

Initial Displacement: 1. ft

Static Water Column Height: 122.3 ft

Total Well Penetration Depth: 122.3 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

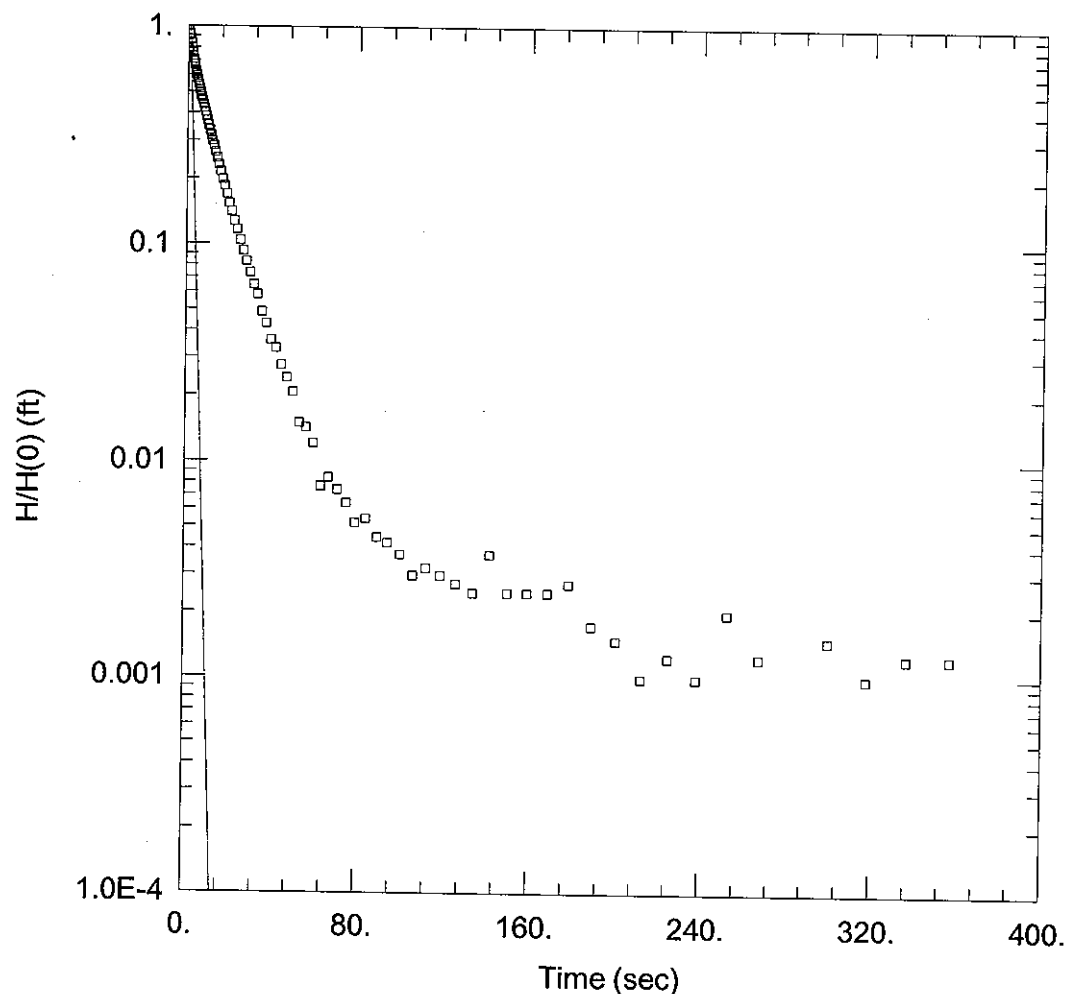
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 87.16 ft/day

$y_0 =$ 1.119 ft



MW-3D RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 3D Rising 7 (B-R).agt

Date: 03/03/09

Time: 11:03:38

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 122.3 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-3D)

Initial Displacement: 1. ft

Static Water Column Height: 122.3 ft

Total Well Penetration Depth: 122.3 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

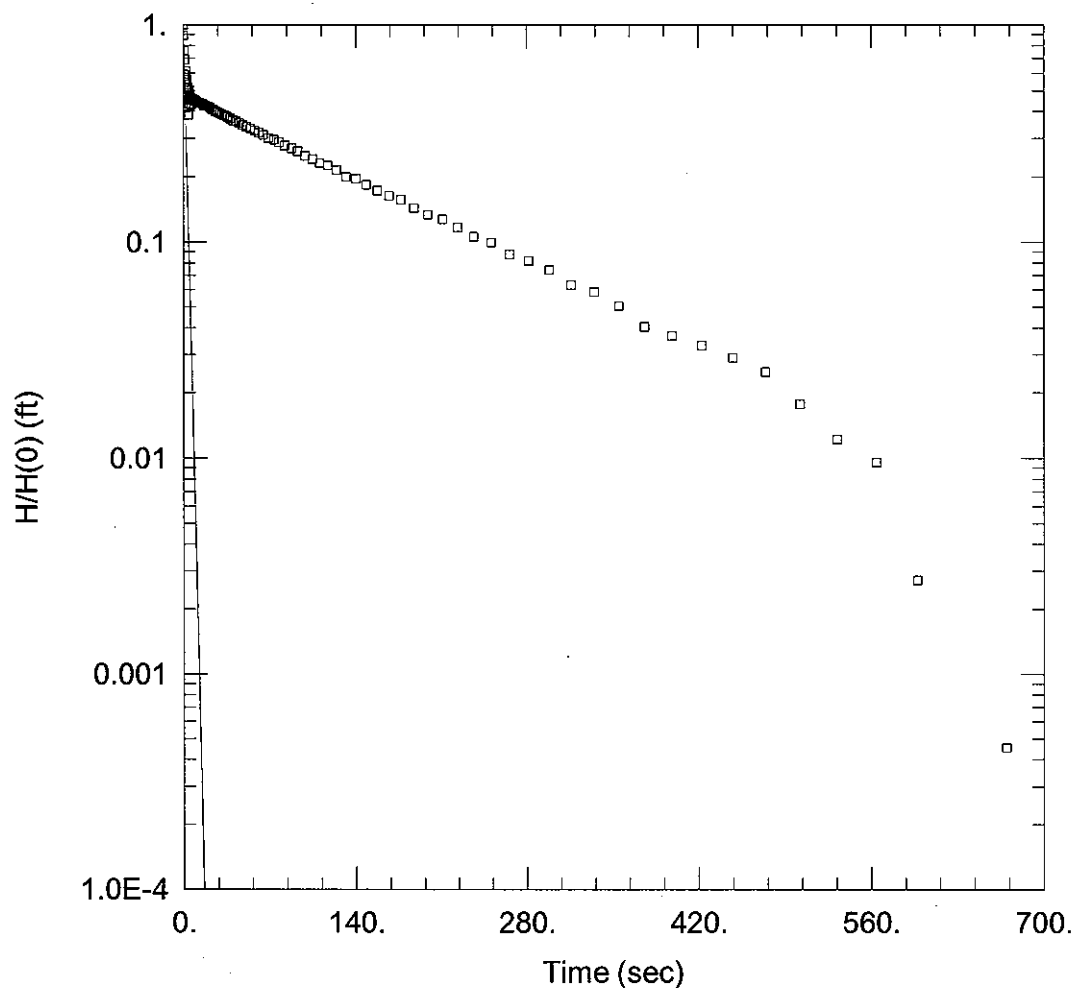
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 90.06 ft/day

$y_0 =$ 1.911 ft



MW-3I FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 3I Falling 4 (B-R).agt

Date: 03/03/09

Time: 11:04:04

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3I

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 70.55 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3I)

Initial Displacement: 1. ft

Static Water Column Height: 70.55 ft

Total Well Penetration Depth: 70.55 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

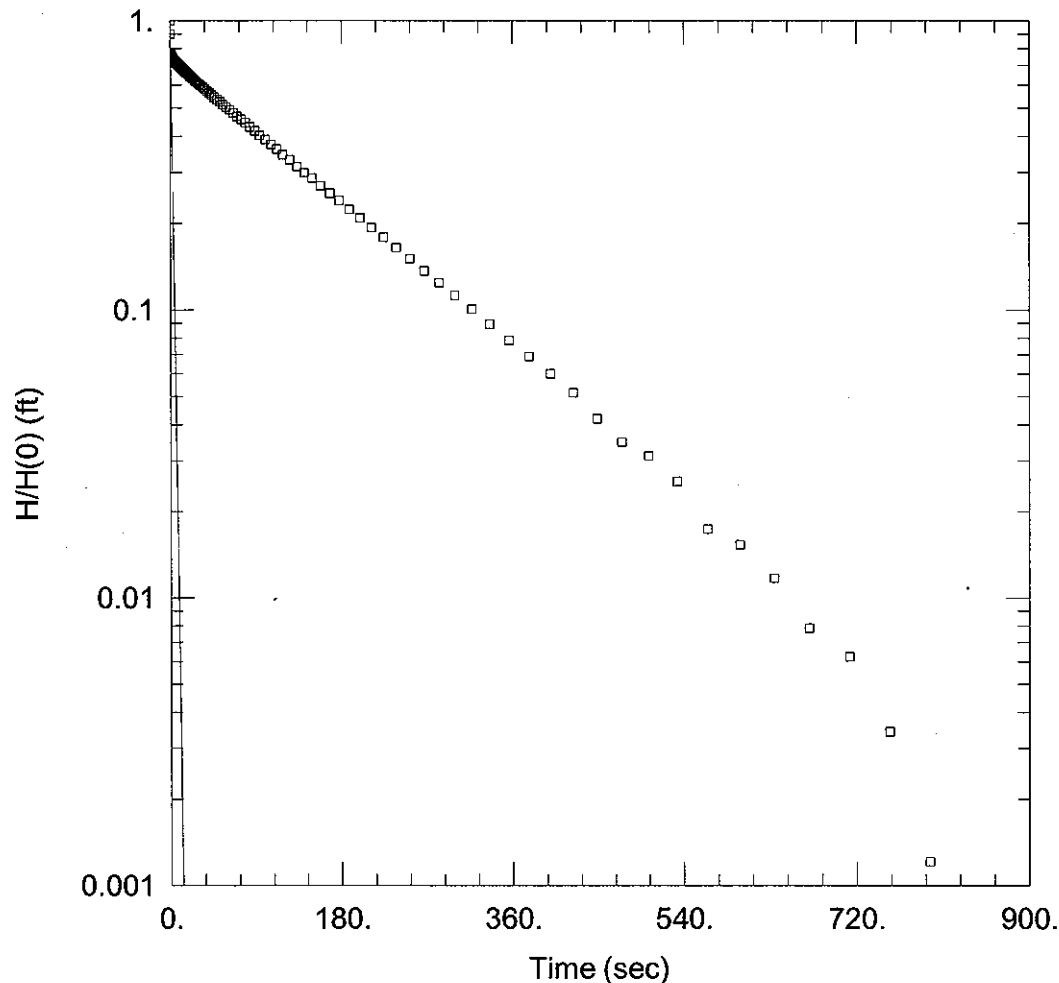
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 66.51 ft/day

y0 = 1.136 ft



MW-3I RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 3I Rising 7 (B-R).aqt

Date: 03/03/09

Time: 11:04:09

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3I

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 70.55 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-3I)

Initial Displacement: 1. ft

Static Water Column Height: 70.55 ft

Total Well Penetration Depth: 70.55 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

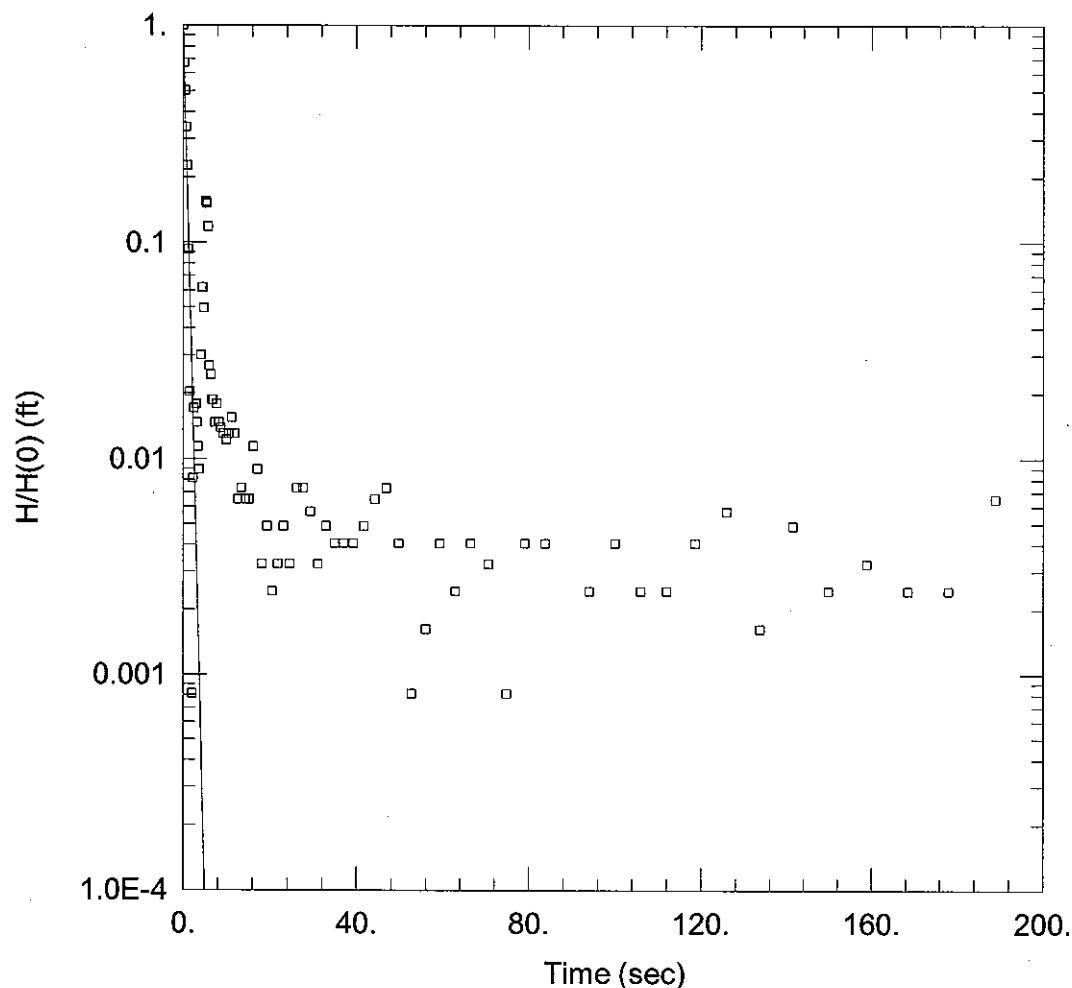
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 65.57 ft/day

y0 = 1.176 ft



MW-3S RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 3S Rising 4 (B-R).aqt

Date: 03/03/09

Time: 11:04:42

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.32 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-3S)

Initial Displacement: 1. ft

Static Water Column Height: 13.32 ft

Total Well Penetration Depth: 13.32 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

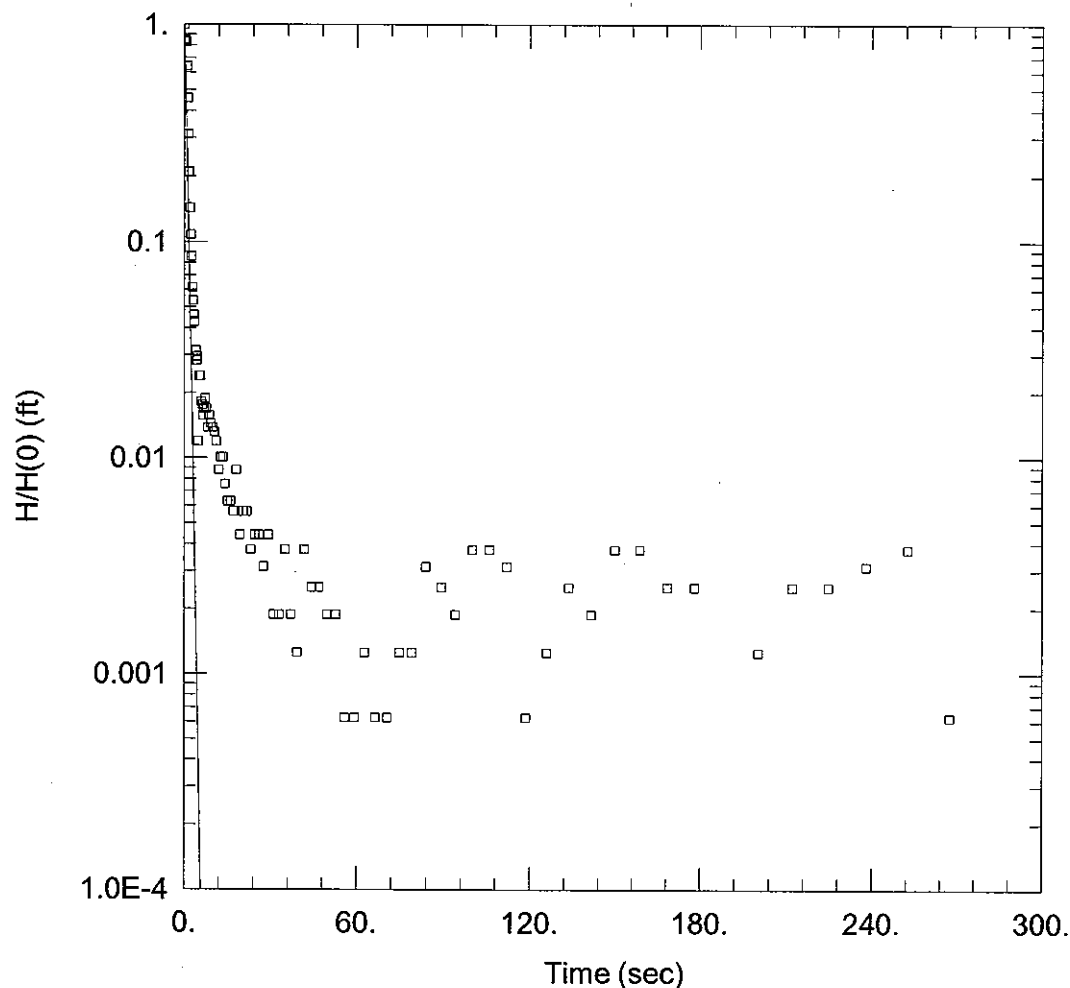
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 165.1$ ft/day

$y_0 = 1.116$ ft



MW-3S RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 3S Rising 7 (B-R).aq1

Date: 03/03/09

Time: 11:04:45

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.32 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-3S)

Initial Displacement: 1. ft

Static Water Column Height: 13.32 ft

Total Well Penetration Depth: 13.32 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

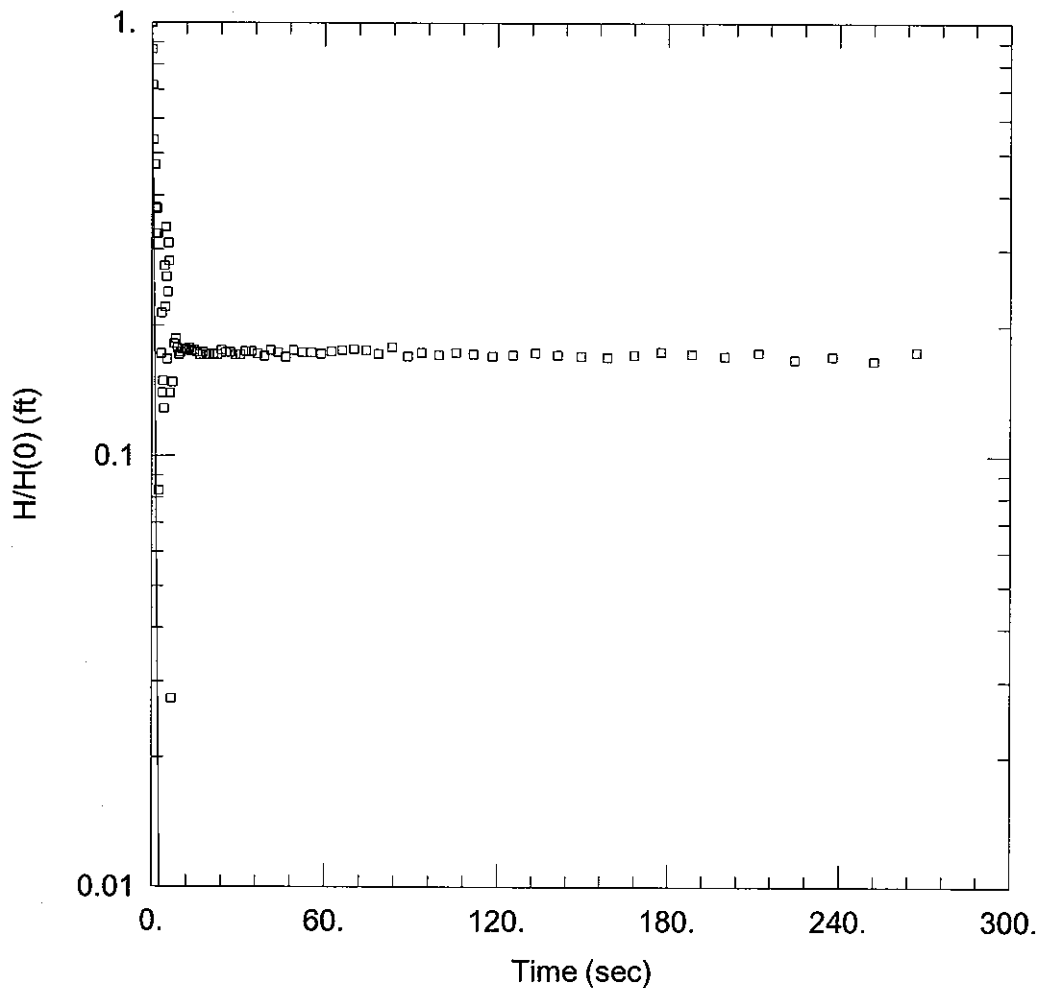
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 141.6$ ft/day

$y_0 = 1.323$ ft



MW-3S FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 3S Falling 4 (B-R).agt

Date: 03/03/09

Time: 11:04:36

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-3S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.32 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-3S)

Initial Displacement: 1. ft

Static Water Column Height: 13.32 ft

Total Well Penetration Depth: 13.32 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

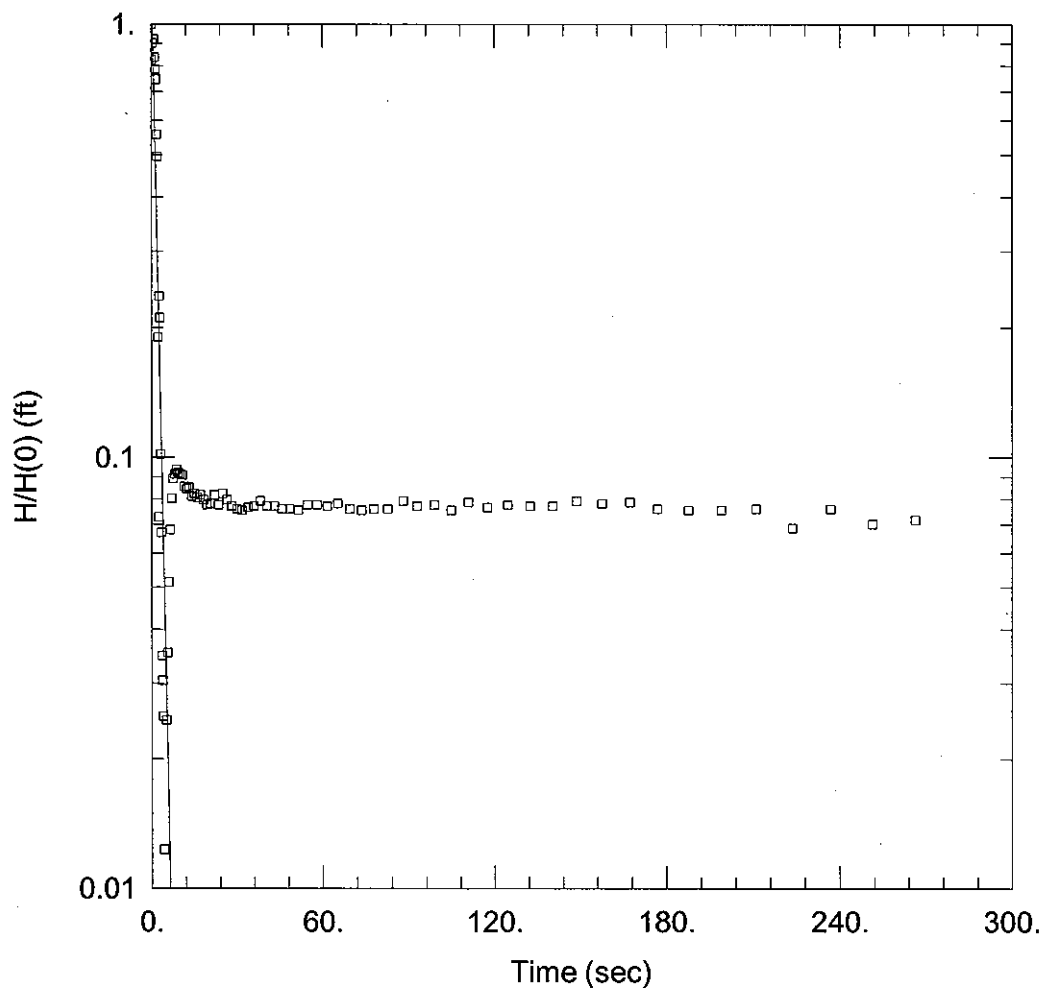
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 145.7 ft/day

y_0 = 1.157 ft



MW-8D FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 8D Falling 4 (B-R).aqt

Date: 03/03/09

Time: 12:10:12

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-8D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 91.49 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-8D)

Initial Displacement: 1. ft

Static Water Column Height: 91.49 ft

Total Well Penetration Depth: 91.49 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

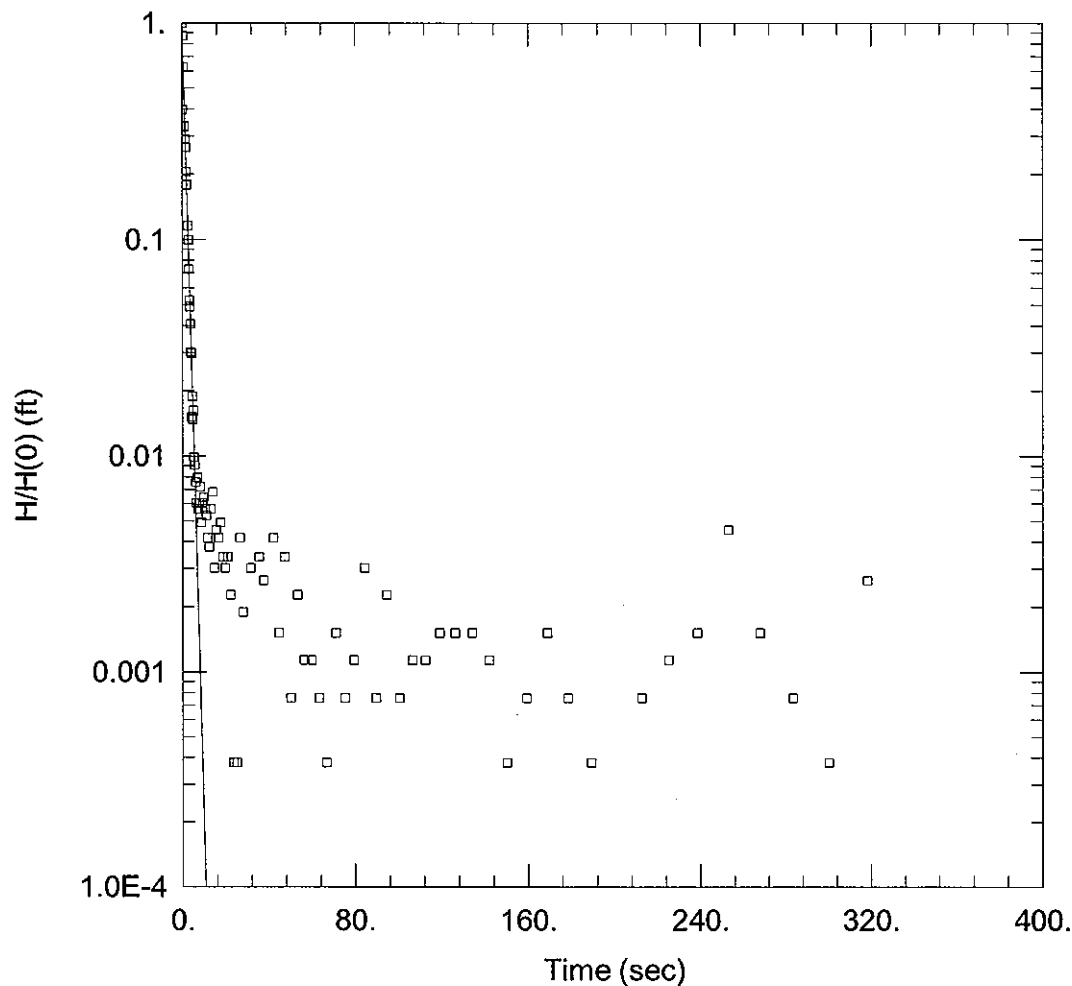
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 92.08 ft/day

y_0 = 1.448 ft



MW-8D RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 8D Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:10:16

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-8D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 91.49 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8D)

Initial Displacement: 1. ft

Static Water Column Height: 91.49 ft

Total Well Penetration Depth: 91.49 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

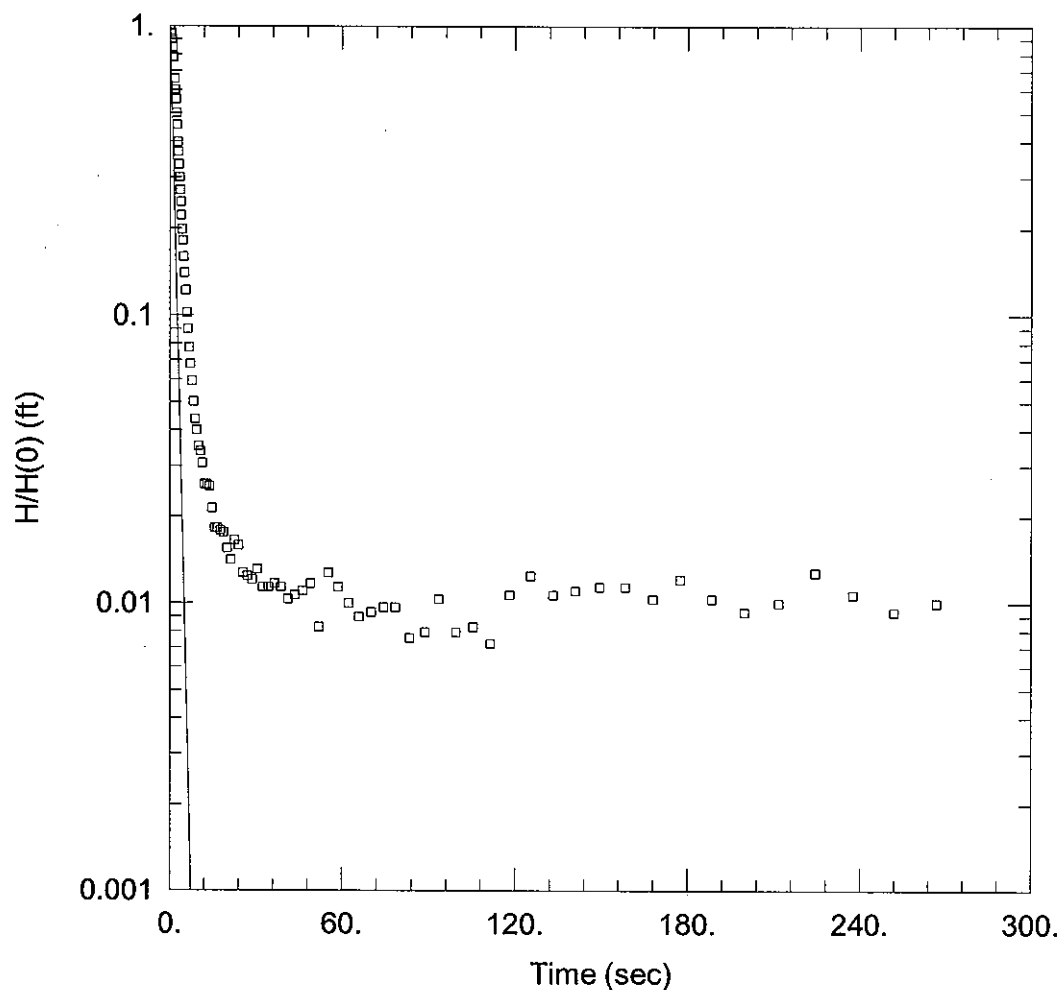
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 105.3 ft/day

y0 = 1.116 ft



MW-8D RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 8D Rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:10:20

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-8D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 91.49 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8D)

Initial Displacement: 1. ft

Static Water Column Height: 91.49 ft

Total Well Penetration Depth: 91.49 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

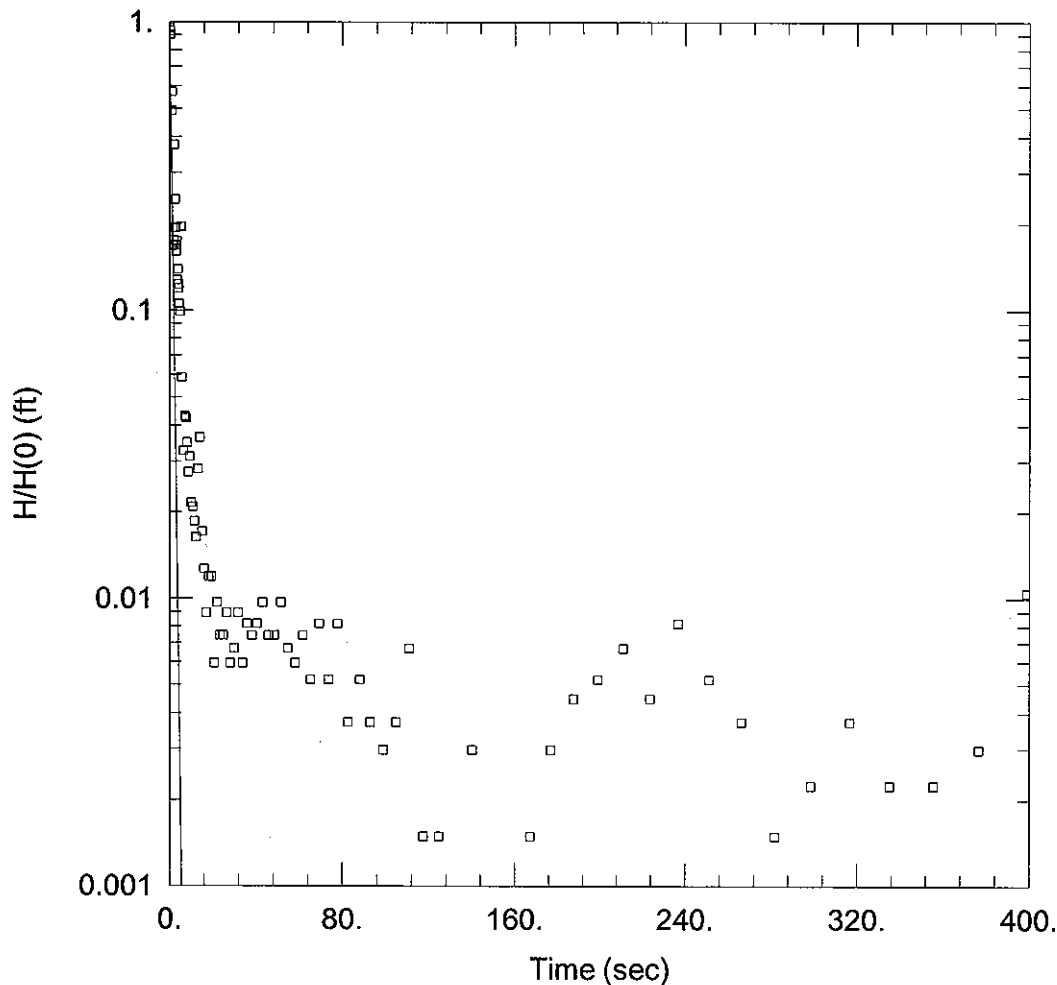
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 113.8 ft/day

y0 = 1.096 ft



MW-8S FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 8S falling 4 (B-R).aqt

Date: 03/03/09

Time: 11:05:51

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-8S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 14.41 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8S)

Initial Displacement: 1. ft

Static Water Column Height: 14.41 ft

Total Well Penetration Depth: 14.41 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

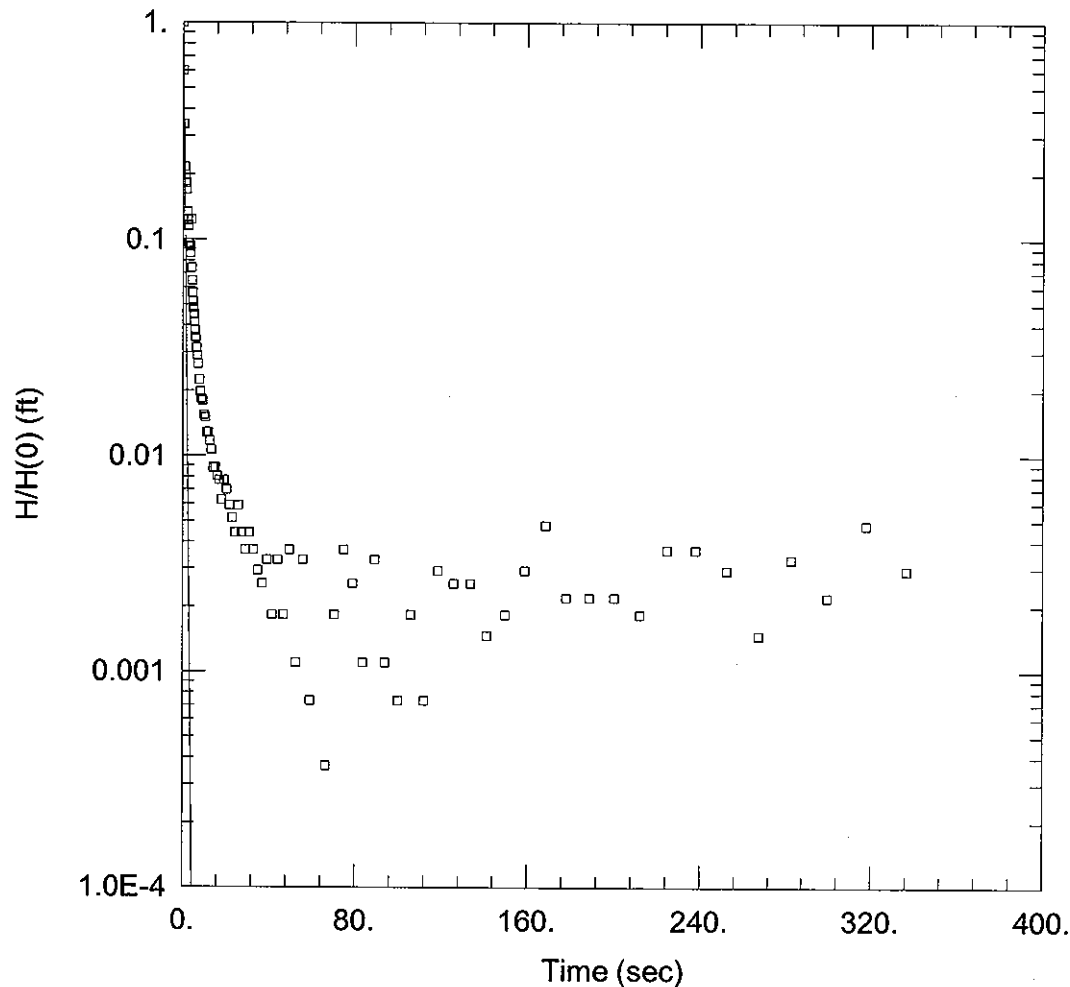
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 114.6 ft/day

y0 = 1.182 ft



MW-8S RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 8S rising 4 (B-R).aqt

Date: 03/03/09

Time: 11:06:14

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-8S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 14.41 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8S)

Initial Displacement: 1. ft

Static Water Column Height: 14.41 ft

Total Well Penetration Depth: 14.41 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

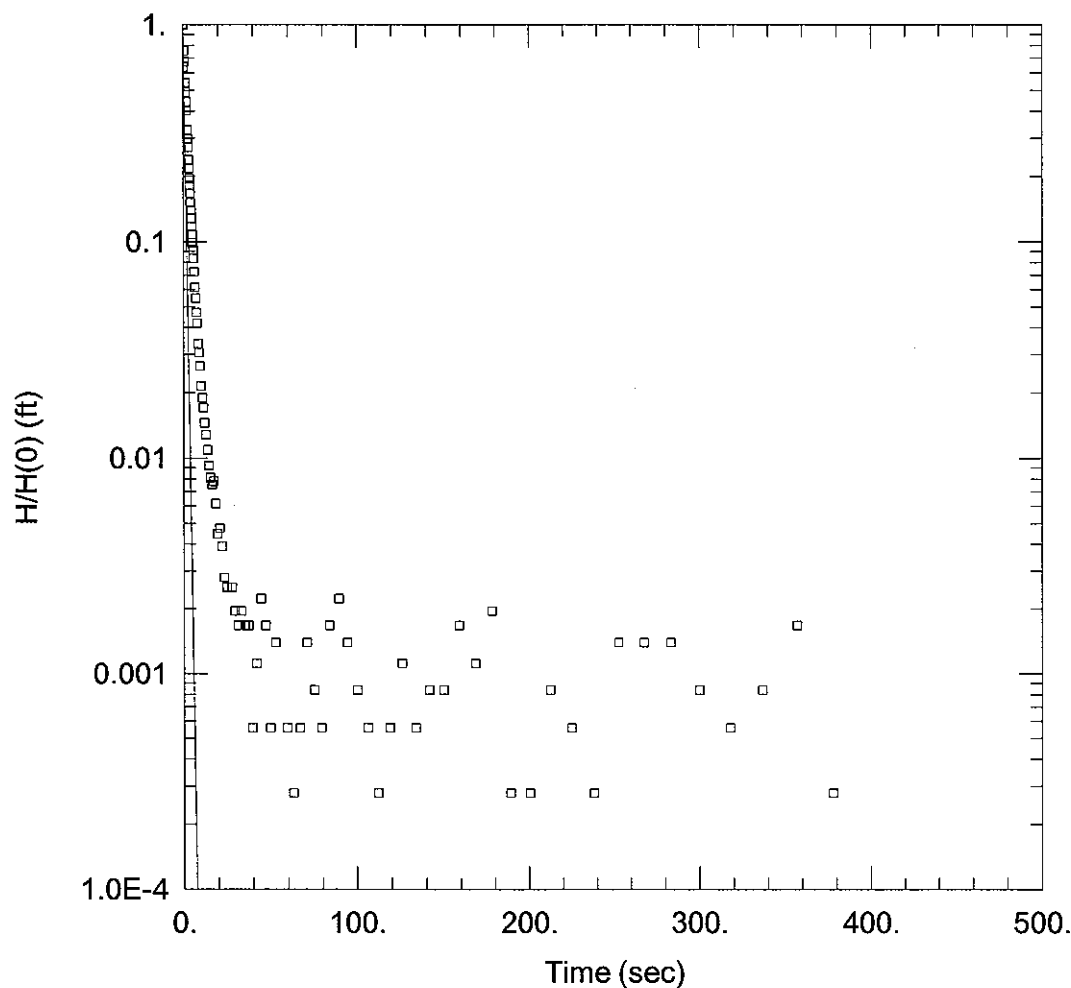
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 188.2 ft/day

y0 = 1.316 ft



MW-8S RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 8S rising 7 (B-R).aqt

Date: 03/03/09

Time: 11:06:27

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-8S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 14.41 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-8S)

Initial Displacement: 1. ft

Static Water Column Height: 14.41 ft

Total Well Penetration Depth: 14.41 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

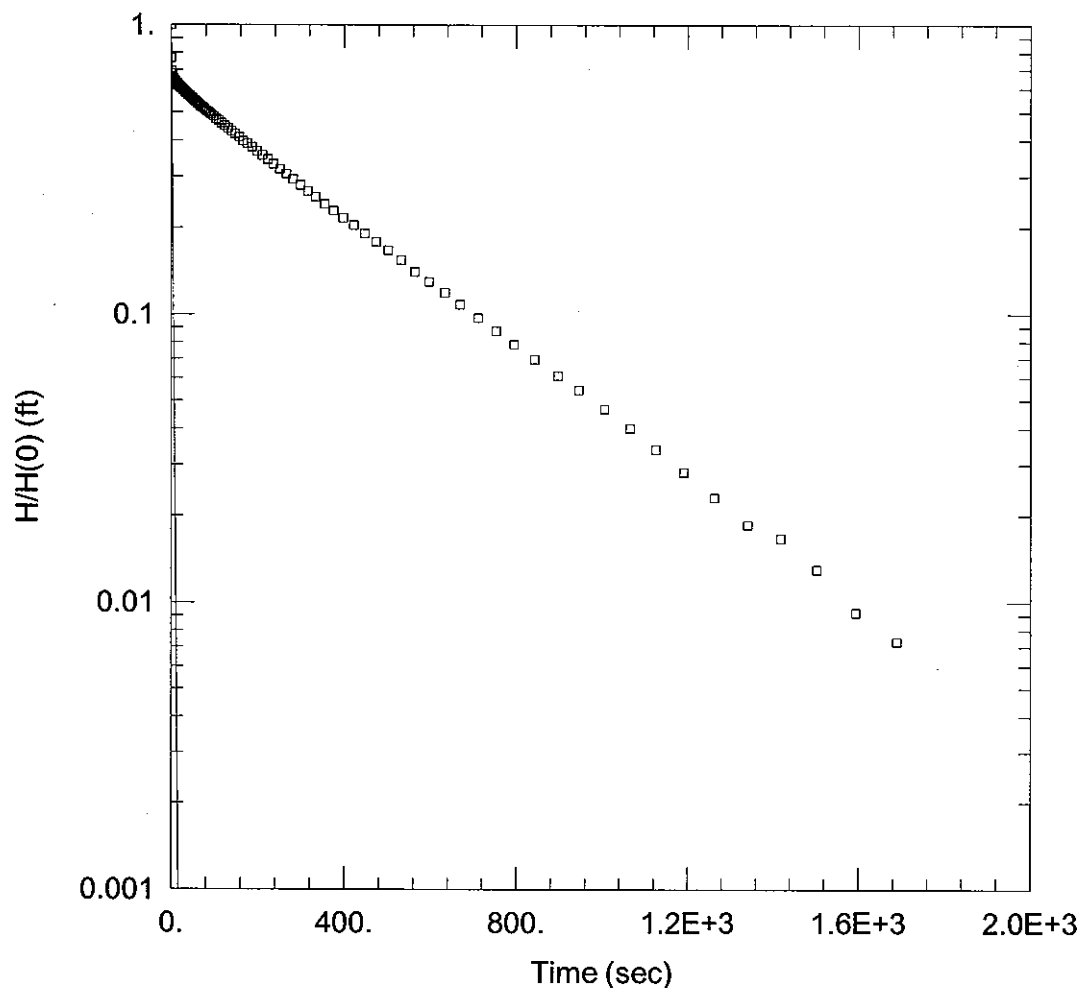
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 110.1 ft/day

$y_0 =$ 0.9851 ft



MW-12D RISING HEAD TEST (7' SLUG)

Data Set: P:\...\MW 12 D Rising 7 (B-R).aqt

Date: 03/03/09

Time: 11:06:52

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-12 D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 107.2 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW 12D)

Initial Displacement: 1. ft

Static Water Column Height: 107.2 ft

Total Well Penetration Depth: 107.2 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

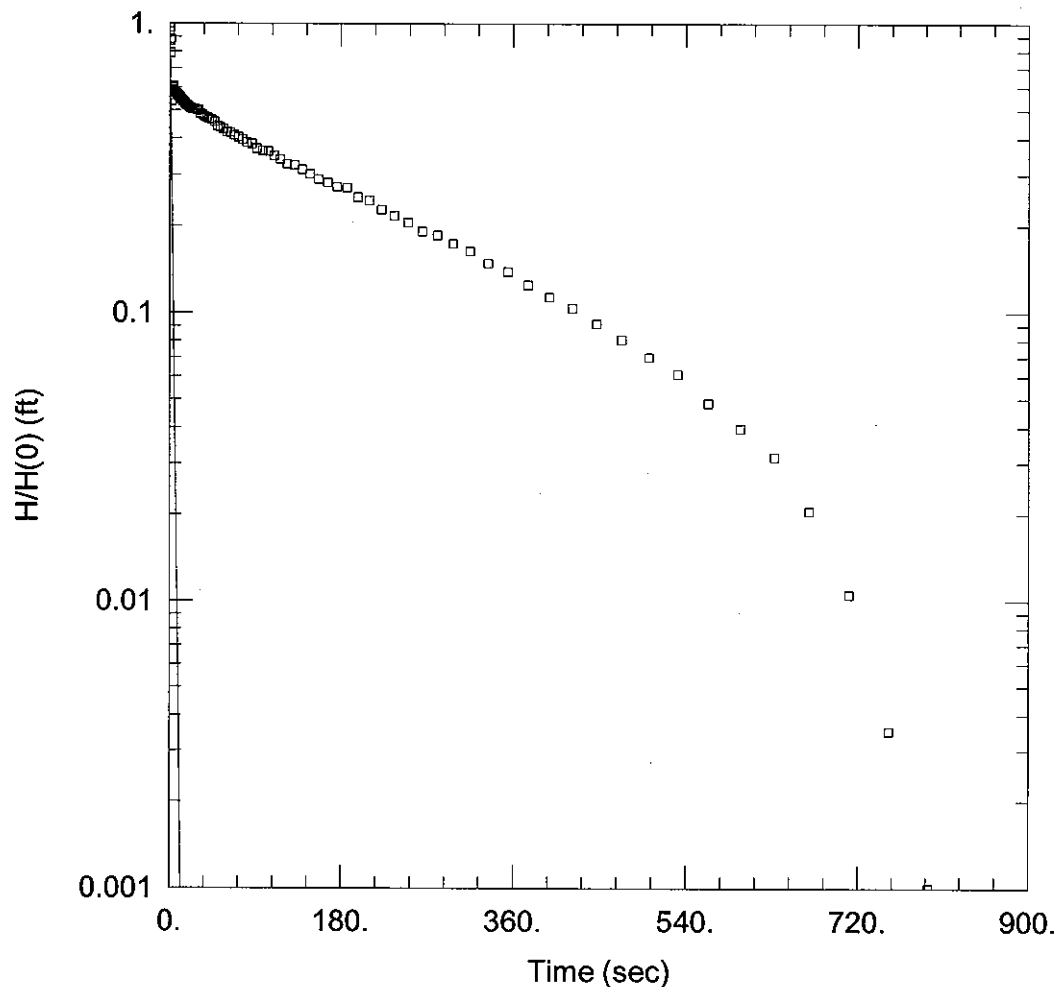
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 52.46 ft/day

$y_0 =$ 1.31 ft



MW-12D FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 12D Falling 4 (B-R).agt

Date: 03/03/09

Time: 11:06:55

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-12 D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 107.2 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW 12D)

Initial Displacement: 1. ft

Static Water Column Height: 107.2 ft

Total Well Penetration Depth: 107.2 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

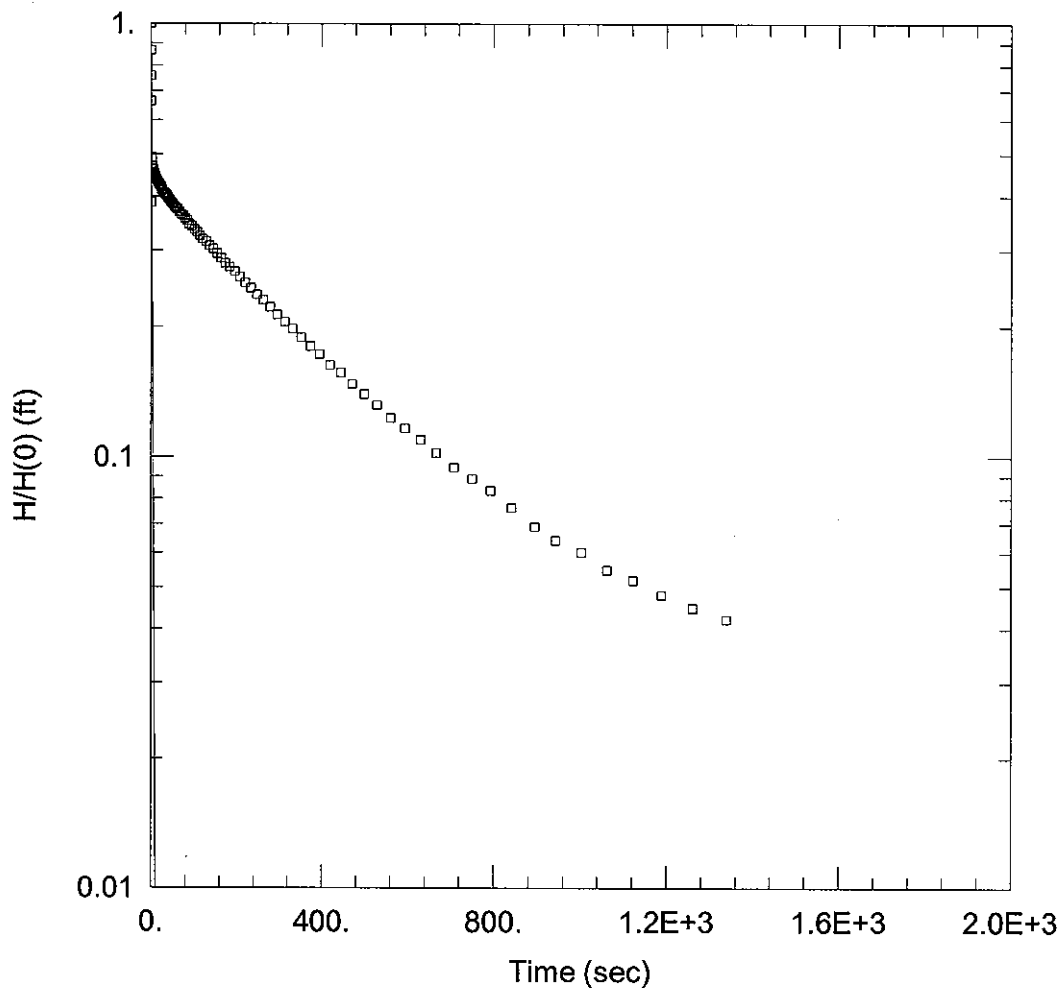
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 73.54 ft/day

$y_0 =$ 1.185 ft



MW-12D RISING HEAD TEST (4' SLUG)

Data Set: P:\...\MW 12D Rising 4 (B- R).aqt

Date: 03/03/09

Time: 11:06:58

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-12 D

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 107.2 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW 12D)

Initial Displacement: 1. ft

Static Water Column Height: 107.2 ft

Total Well Penetration Depth: 107.2 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

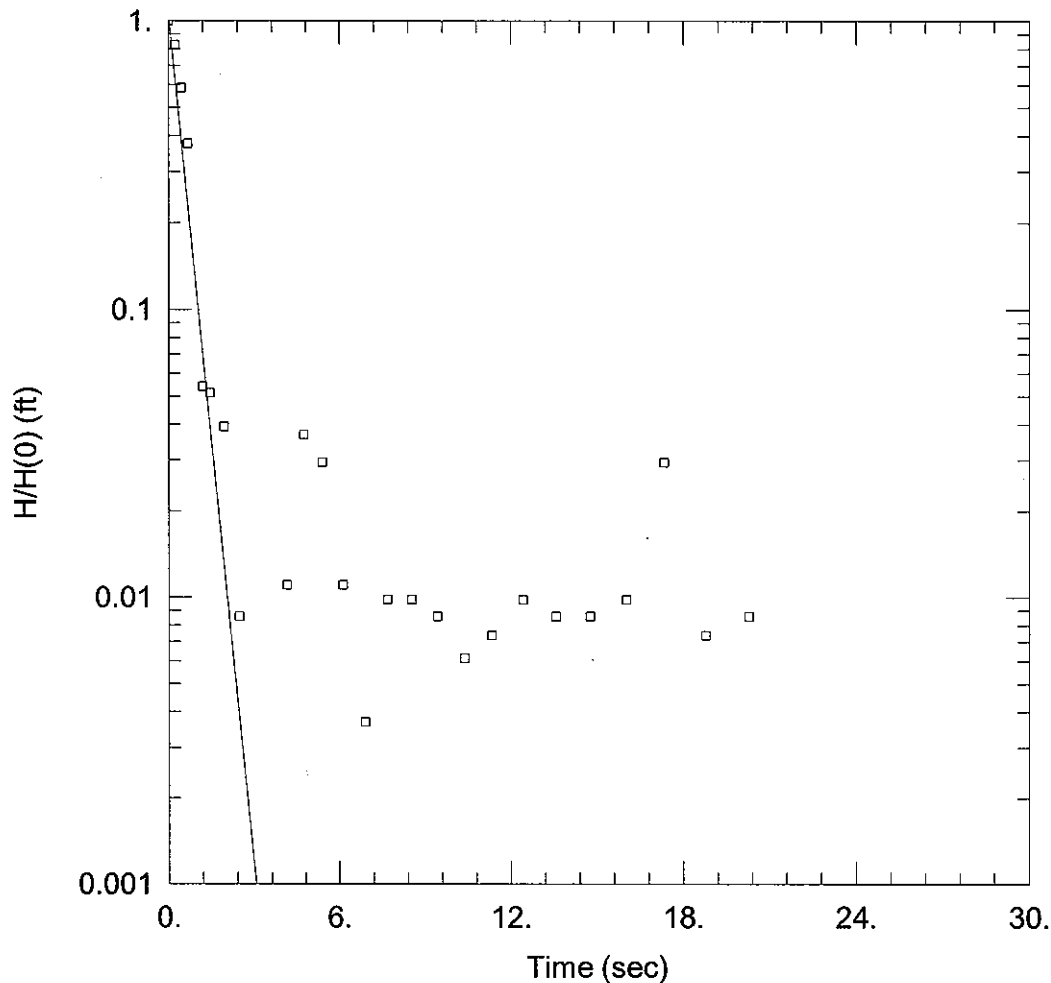
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 54.48 ft/day

$y_0 =$ 1.325 ft



MW-12S FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 12S Falling 4 (B-R).aqt

Date: 03/03/09

Time: 12:15:09

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-12 S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.82 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW 12S)

Initial Displacement: 1. ft

Static Water Column Height: 13.82 ft

Total Well Penetration Depth: 13.82 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

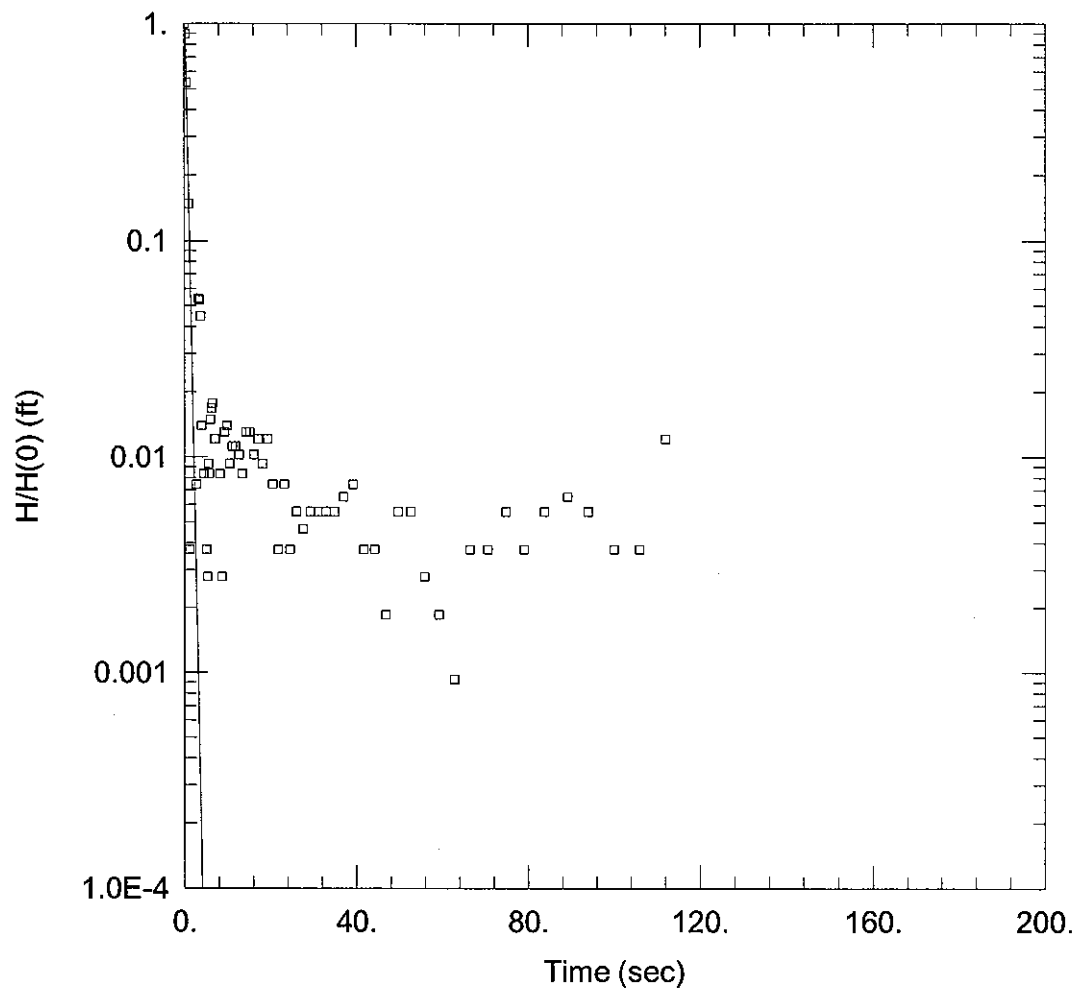
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 202.6 ft/day

y0 = 1.072 ft



MW-12S RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 12S Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:15:12

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-12 S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.82 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW 12S)

Initial Displacement: 1. ft

Static Water Column Height: 13.82 ft

Total Well Penetration Depth: 13.82 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

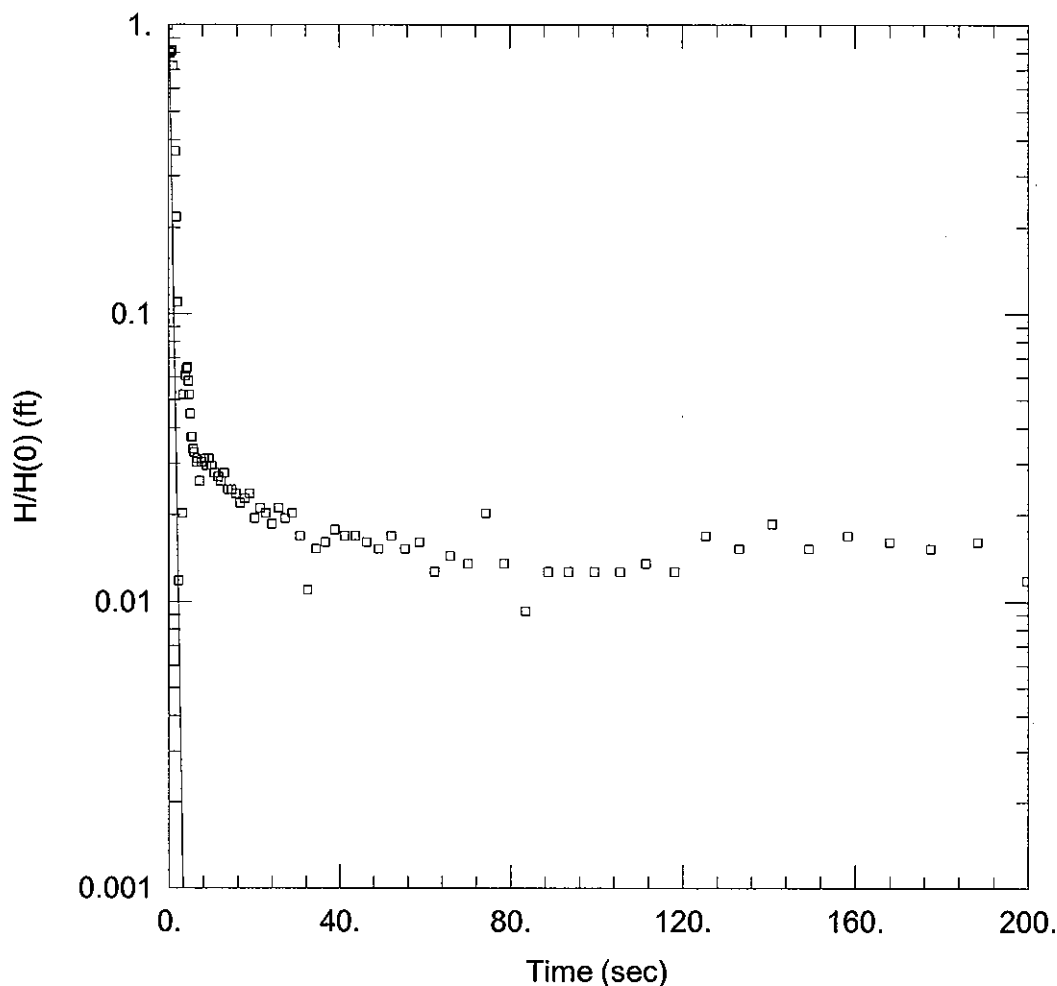
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 210.3 ft/day

$y_0 =$ 1.746 ft



MW-12S RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 12S Rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:15:16

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-12 S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 13.82 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW 12S)

Initial Displacement: 1. ft

Static Water Column Height: 13.82 ft

Total Well Penetration Depth: 13.82 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

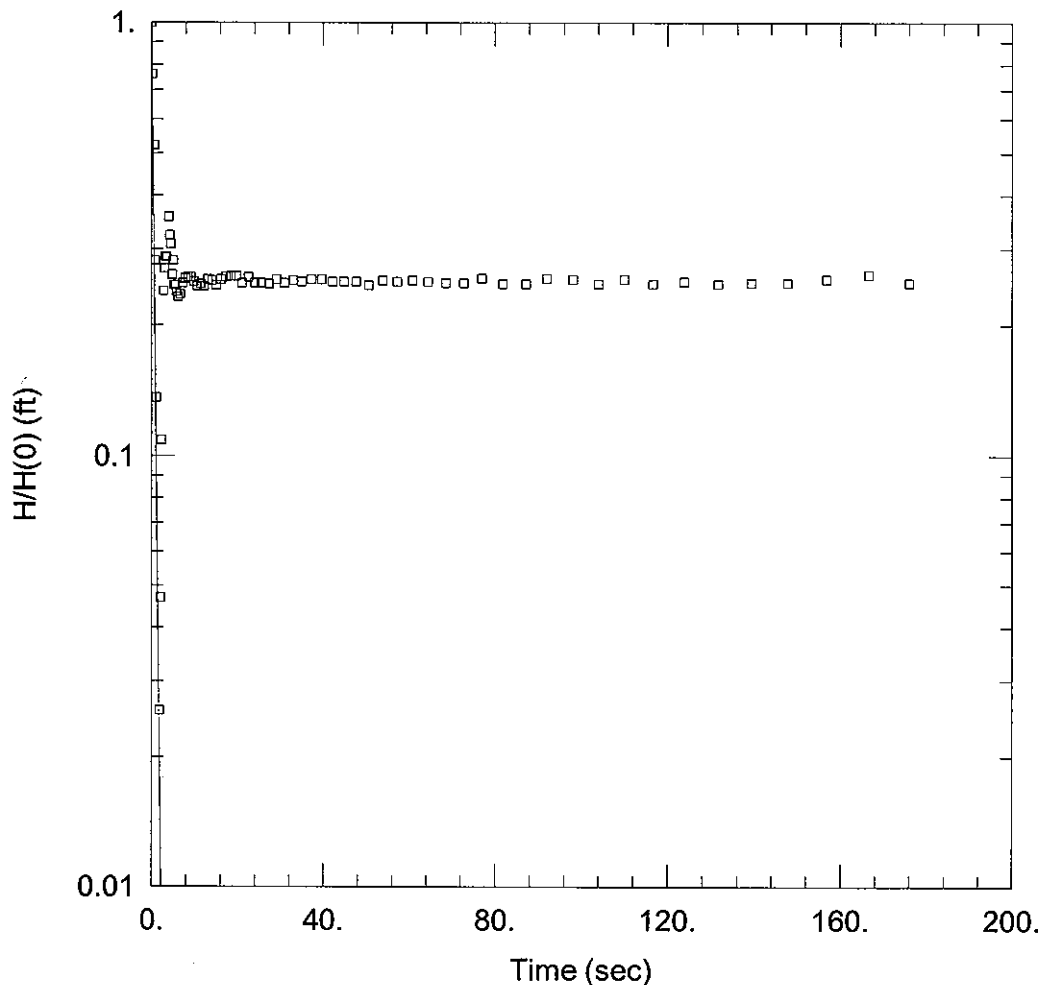
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 199.6 ft/day

$y_0 =$ 1.678 ft



MW-13S FALLING HEAD TEST (4' SLUG)

Data Set: P:\...\MW 13S Falling 4 (B-R).aqt

Date: 03/03/09

Time: 12:18:02

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-13 S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 16.43 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13S)

Initial Displacement: 1. ft

Static Water Column Height: 16.43 ft

Total Well Penetration Depth: 16.43 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

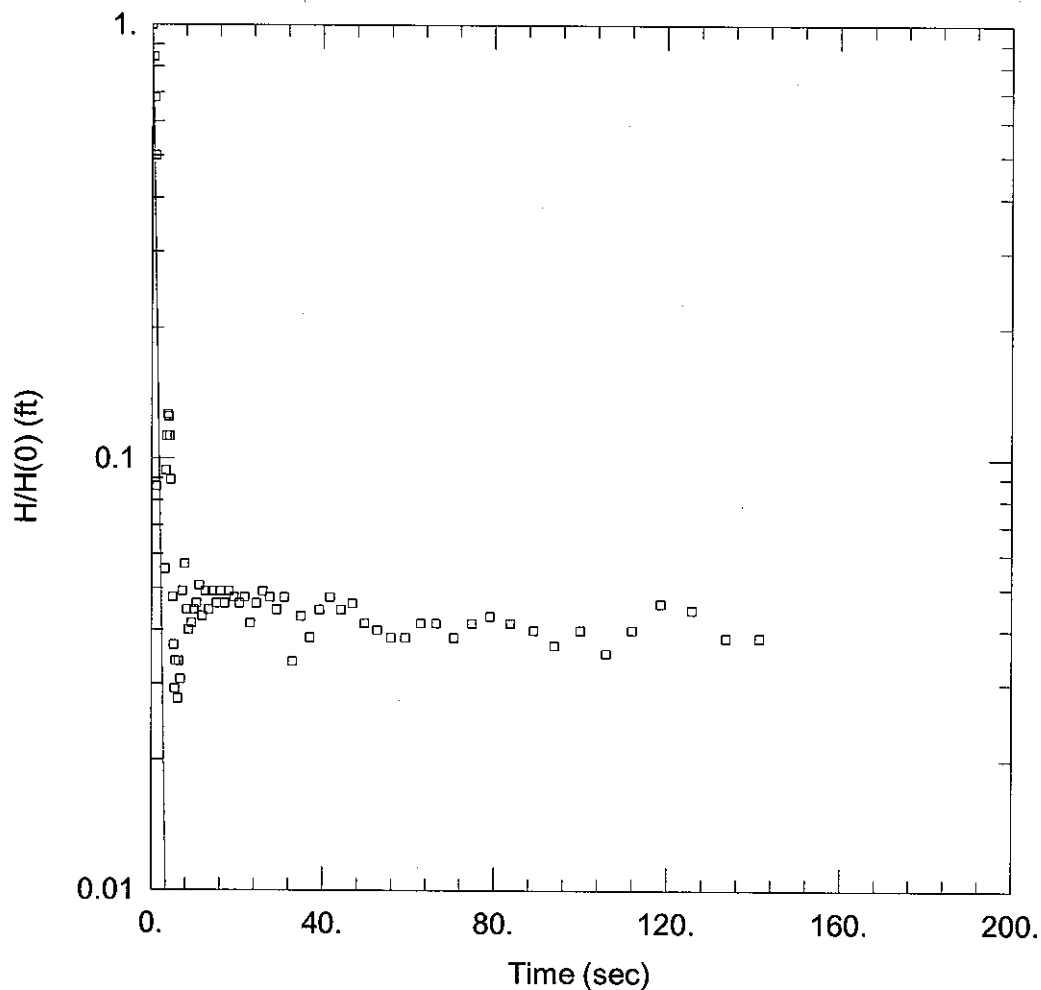
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 200.7 ft/day

y0 = 1.134 ft



MW-13S RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 13S Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:18:06

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-13S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 16.43 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-13S)

Initial Displacement: 1. ft

Static Water Column Height: 16.43 ft

Total Well Penetration Depth: 16.43 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

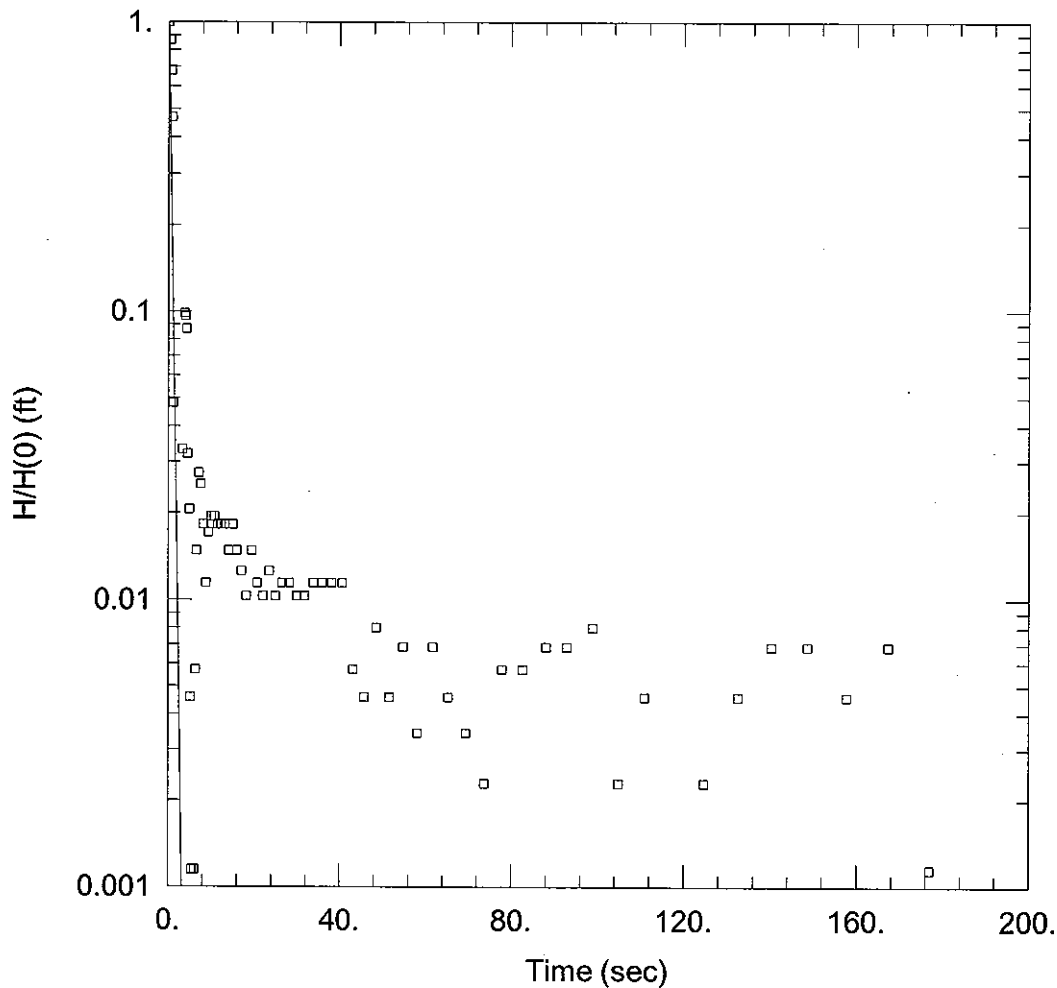
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 124.2$ ft/day

$y_0 = 1.08$ ft



MW-13S RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 13S rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:18:11

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-13 S

Test Date: 2-17-09

AQUIFER DATA

Saturated Thickness: 16.43 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-13S)

Initial Displacement: 1. ft

Static Water Column Height: 16.43 ft

Total Well Penetration Depth: 16.43 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.271 ft

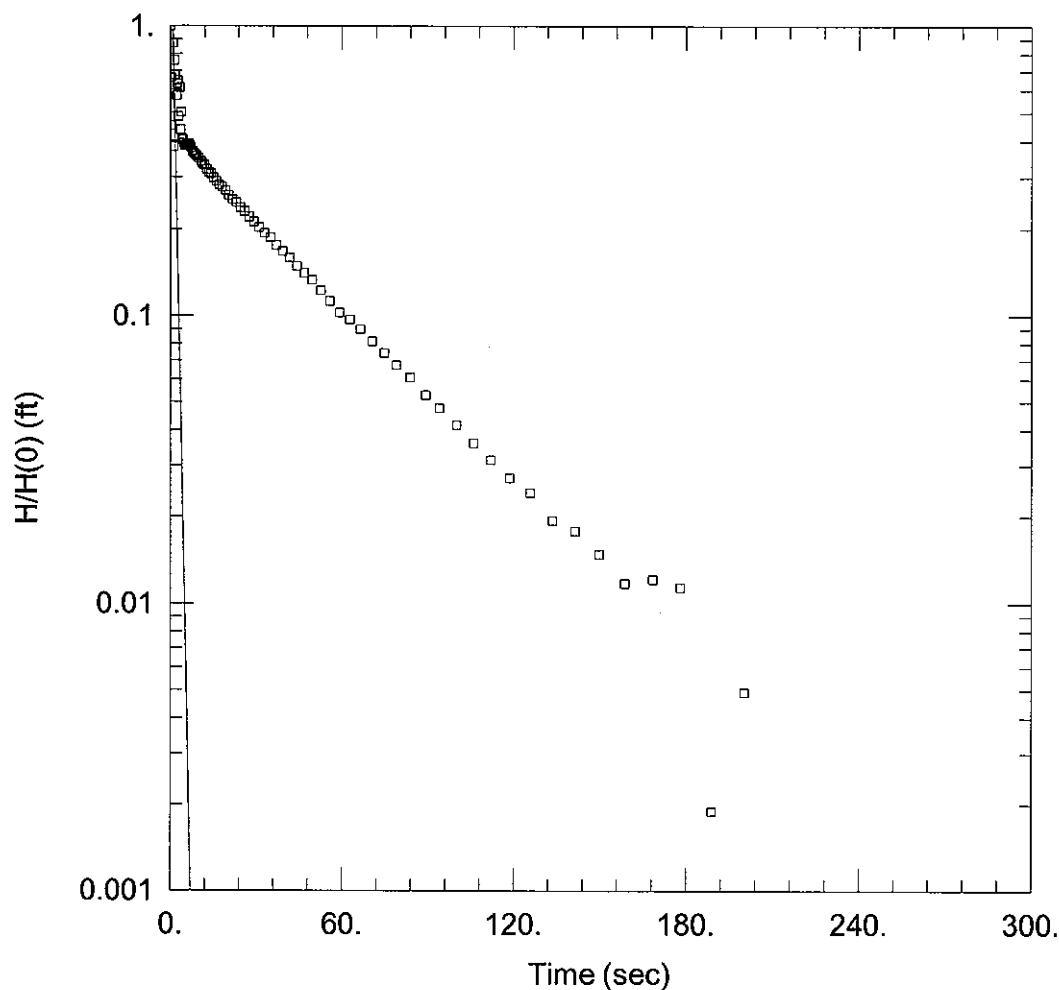
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 205.4 ft/day

y_0 = 1.292 ft



MW-15D FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 15D Falling 4 (B-R).aqt

Date: 03/03/09

Time: 12:21:28

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15D

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 124.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15D)

Initial Displacement: 1. ft

Static Water Column Height: 124.1 ft

Total Well Penetration Depth: 124.1 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

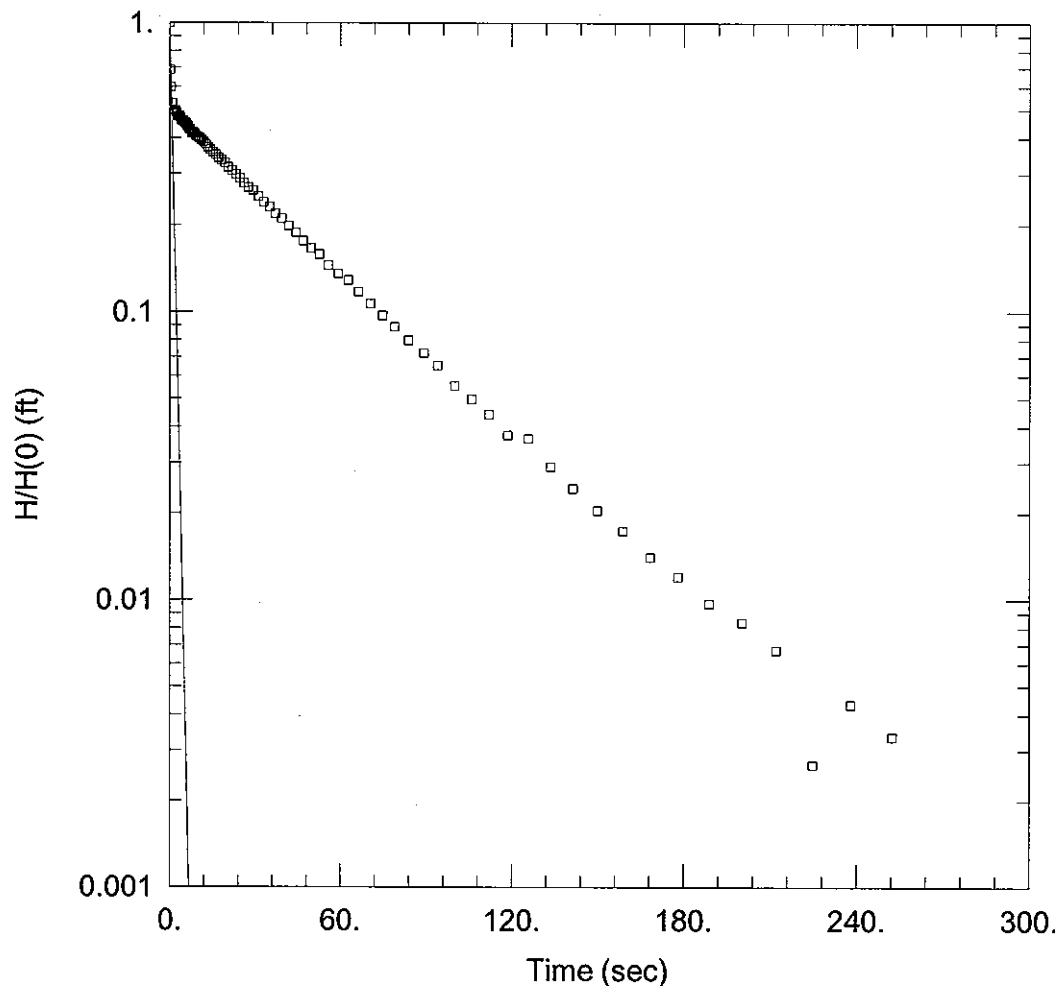
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 139.7 ft/day

y0 = 2.655 ft



MW-15D RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 15D Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:21:31

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15D

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 124.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15D)

Initial Displacement: 1. ft

Static Water Column Height: 124.1 ft

Total Well Penetration Depth: 124.1 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

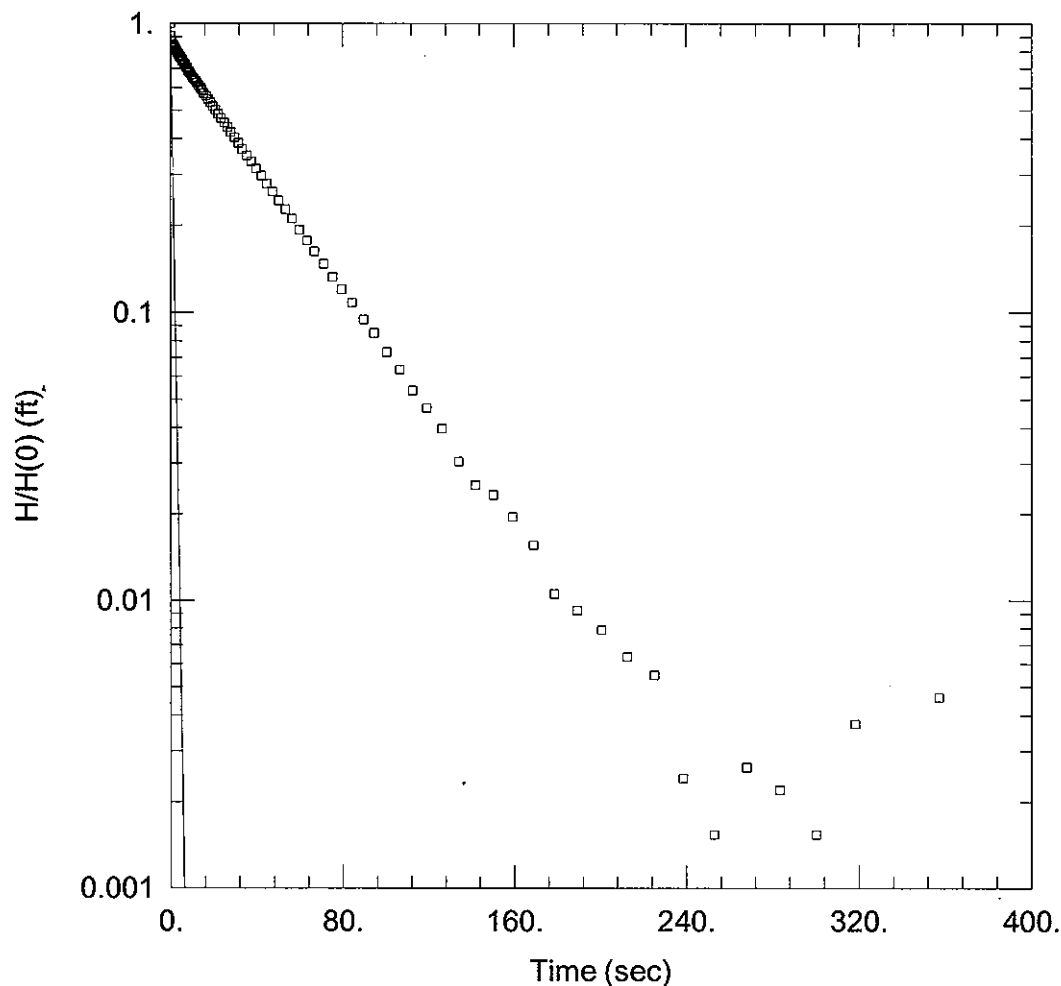
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 128.5 ft/day

y0 = 1.105 ft



MW-15D RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 15D Rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:21:34

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15D

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 124.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15D)

Initial Displacement: 1. ft

Static Water Column Height: 124.1 ft

Total Well Penetration Depth: 124.1 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

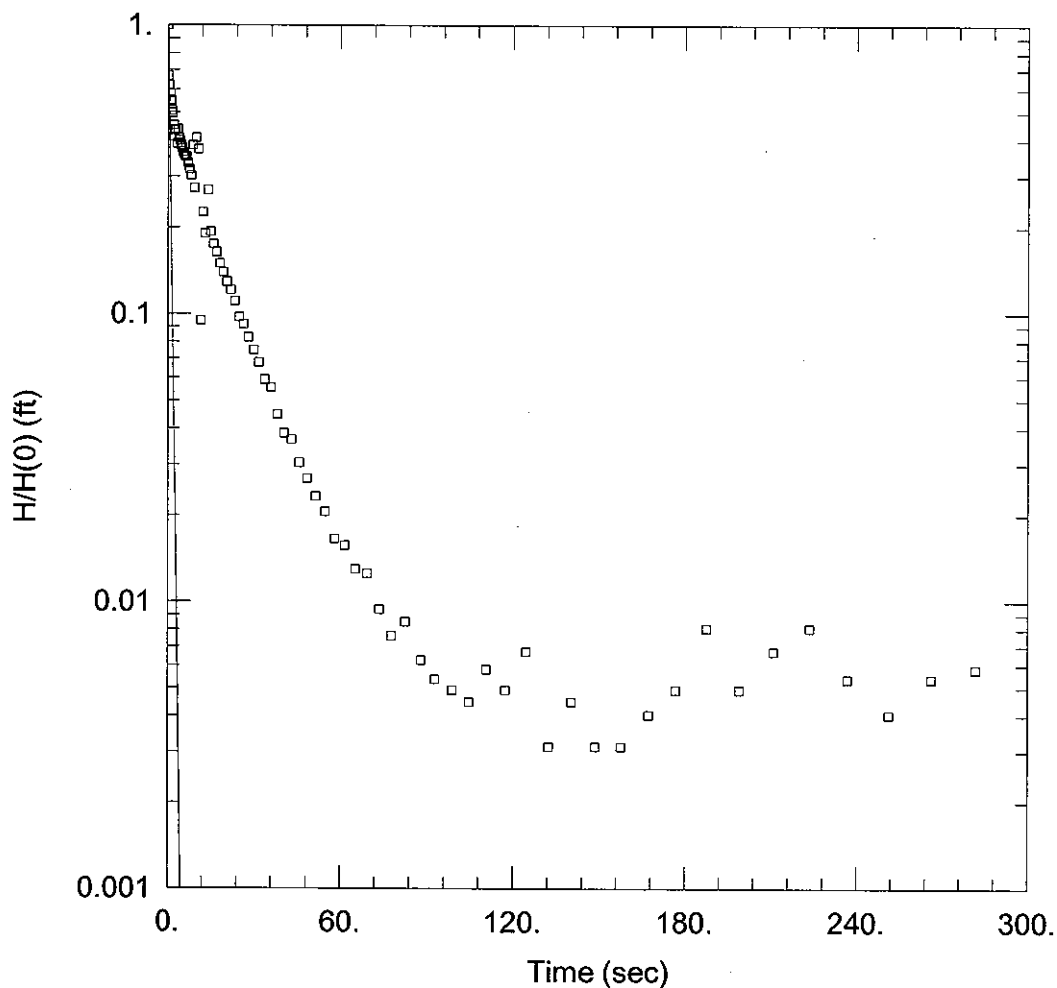
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 137.4 ft/day

y0 = 1. ft



MW-15I FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 15I Falling 4 (B-R).aqt

Date: 03/03/09

Time: 11:11:49

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 64.18 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15I)

Initial Displacement: 1. ft

Static Water Column Height: 64.18 ft

Total Well Penetration Depth: 64.18 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

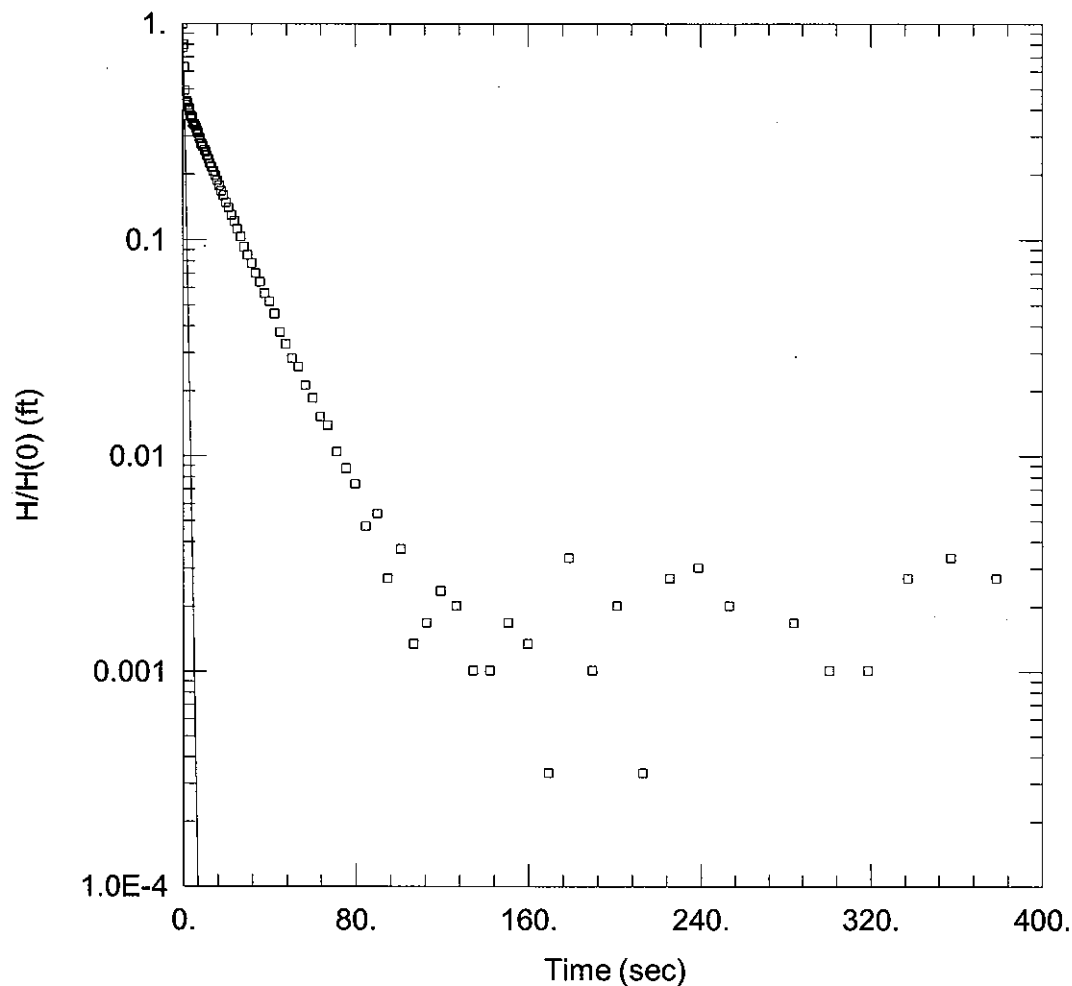
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 176.2 ft/day

y_0 = 1.162 ft



MW-15I RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 15I Rising 4 (B-R).aqt

Date: 03/03/09

Time: 11:11:52

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 64.18 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15I)

Initial Displacement: 1. ft

Static Water Column Height: 64.18 ft

Total Well Penetration Depth: 64.18 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

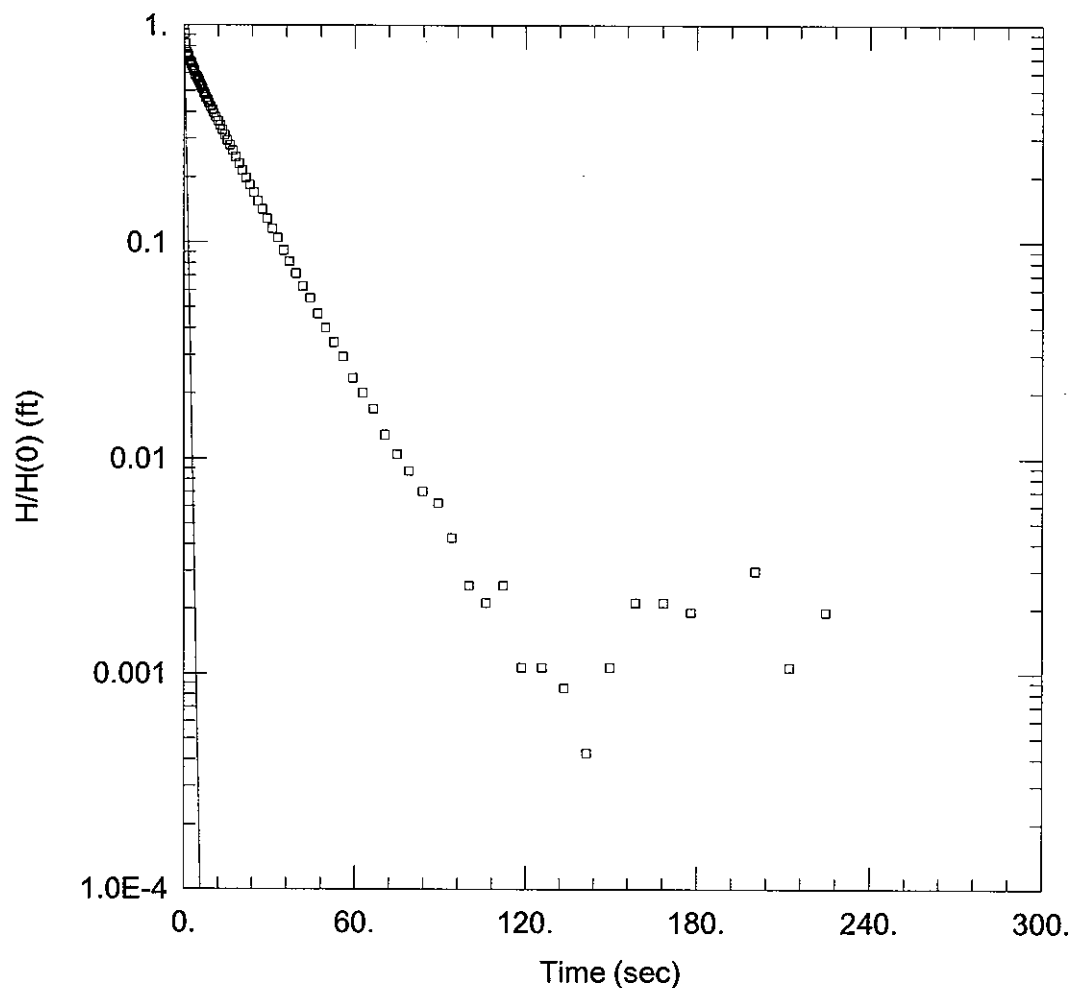
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 159.4 ft/day

y_0 = 1.253 ft



MW-15I RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 15I Rising 7 (B-R).aqt

Date: 03/03/09

Time: 11:11:55

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-15I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 64.18 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-15I)

Initial Displacement: 1. ft

Static Water Column Height: 64.18 ft

Total Well Penetration Depth: 64.18 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.281 ft

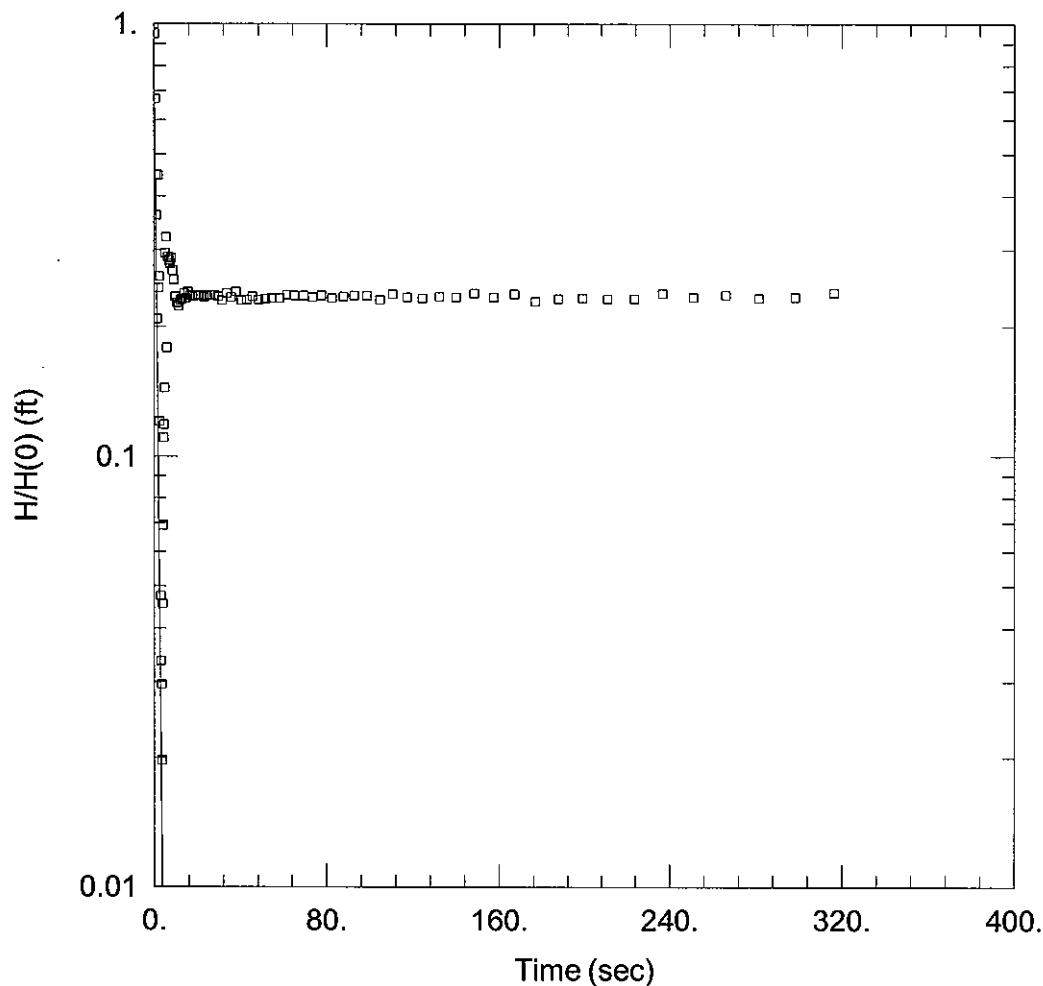
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K = 183.$ ft/day

$y_0 = 1.166$ ft



MW-20I FALLING HEAD TEST (4' SLUG)

Data Set: P:\...MW 20I Falling 4 (B-R).aqt

Date: 03/03/09

Time: 12:23:44

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-20I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 47.17 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20I)

Initial Displacement: 1. ft

Static Water Column Height: 47.17 ft

Total Well Penetration Depth: 47.17 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.333 ft

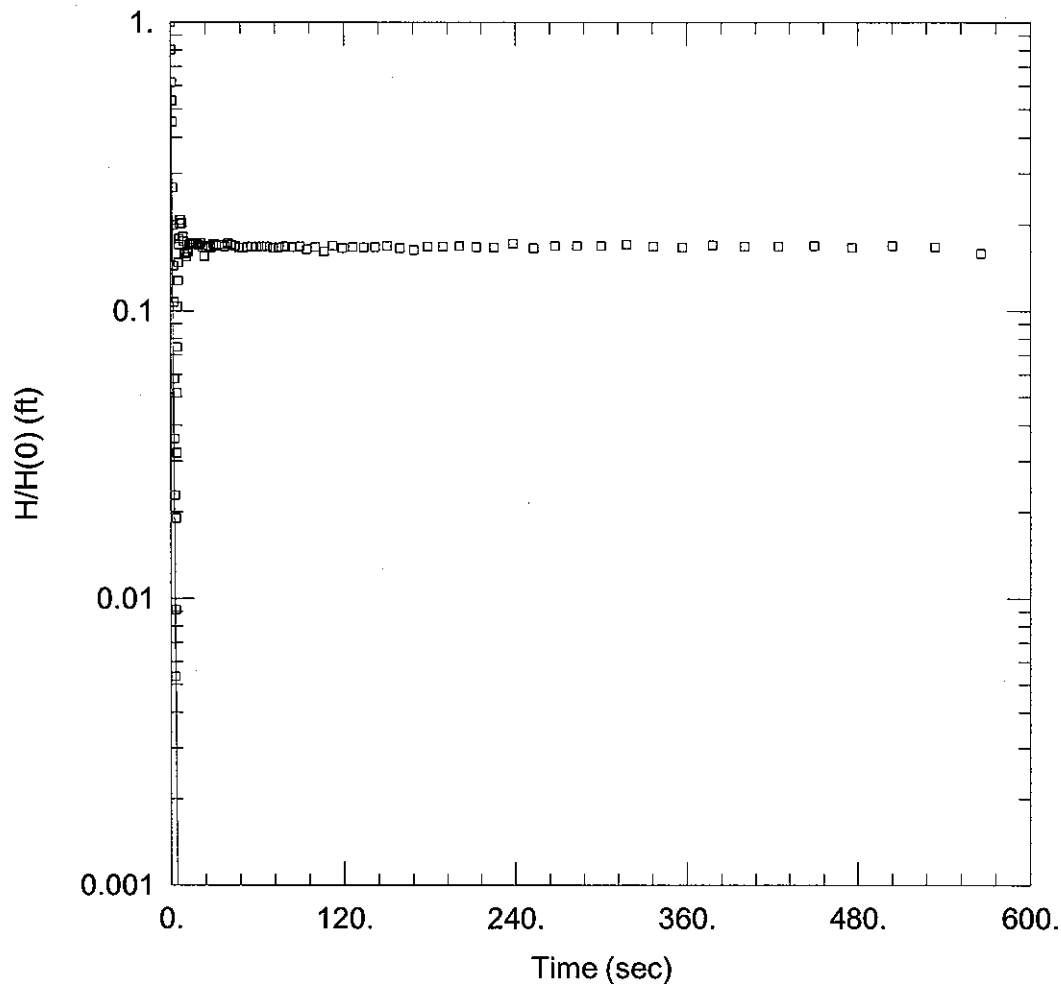
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 133.5 ft/day

y0 = 1.168 ft



MW-20I RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 20I Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:23:47

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-20I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 47.17 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20I)

Initial Displacement: 1. ft

Static Water Column Height: 47.17 ft

Total Well Penetration Depth: 47.17 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.333 ft

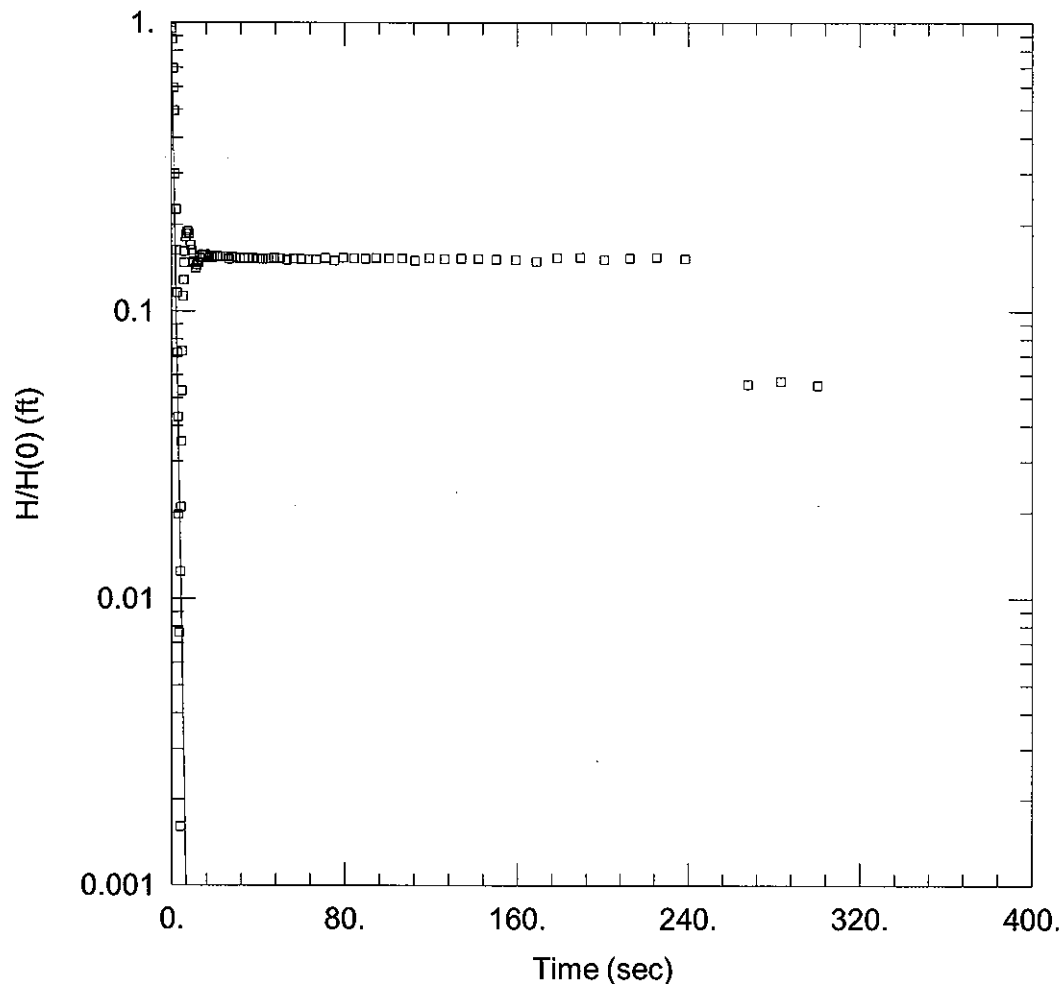
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 164.6 ft/day

y0 = 1.333 ft



MW-20I RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 20I Rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:23:52

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 1117065

Location: Hempstead, New York

Test Well: MW-20I

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 47.17 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20I)

Initial Displacement: 1. ft

Static Water Column Height: 47.17 ft

Total Well Penetration Depth: 47.17 ft

Screen Length: 10. ft

Casing Radius: 0.08333 ft

Well Radius: 0.333 ft

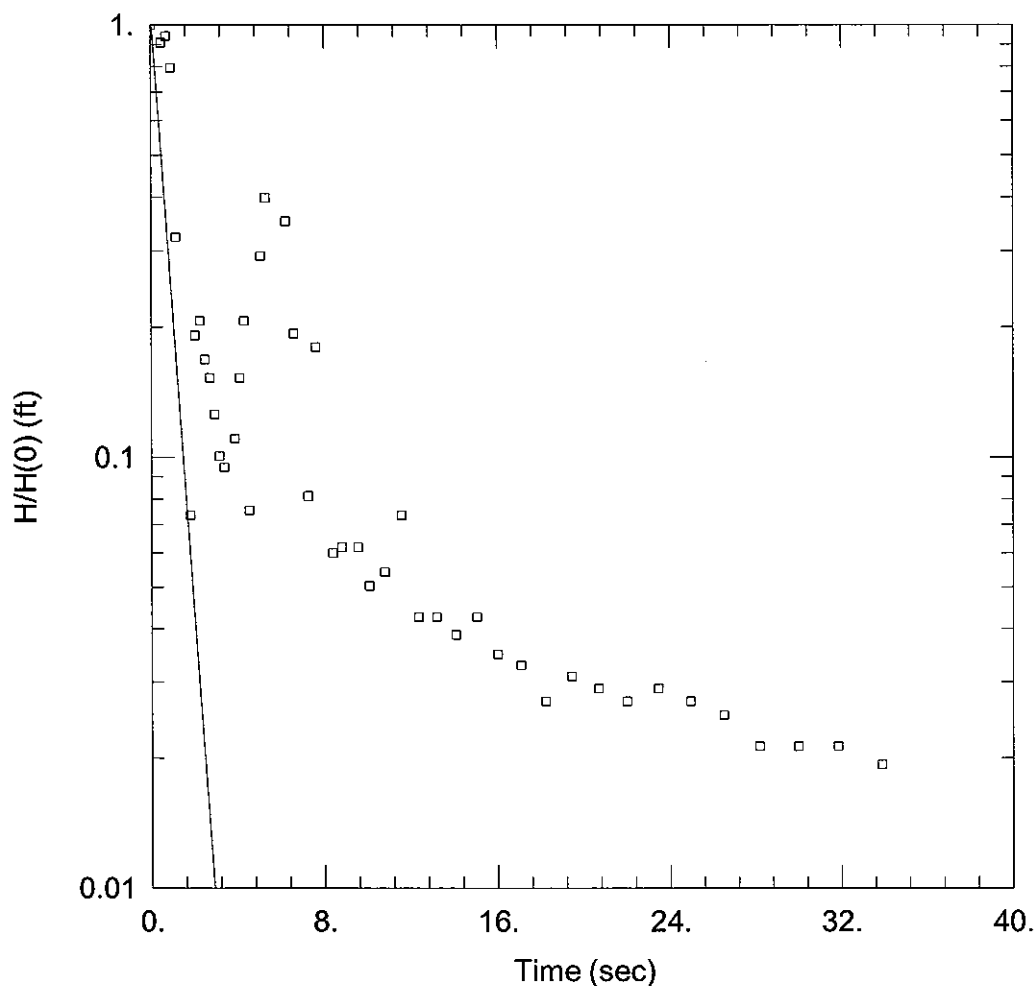
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 109.6 ft/day

y0 = 1. ft



MW-20S FALLING HEAD TEST (4' SLUG)

Data Set: P:\...\MW 20S Falling 4 (B-R).agt

Date: 03/03/09

Time: 12:26:05

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-20S

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 9.02 ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-20S)

Initial Displacement: 1. ft

Static Water Column Height: 9.02 ft

Total Well Penetration Depth: 9.02 ft

Screen Length: 9.02 ft

Casing Radius: 0.08333 ft

Well Radius: 0.3333 ft

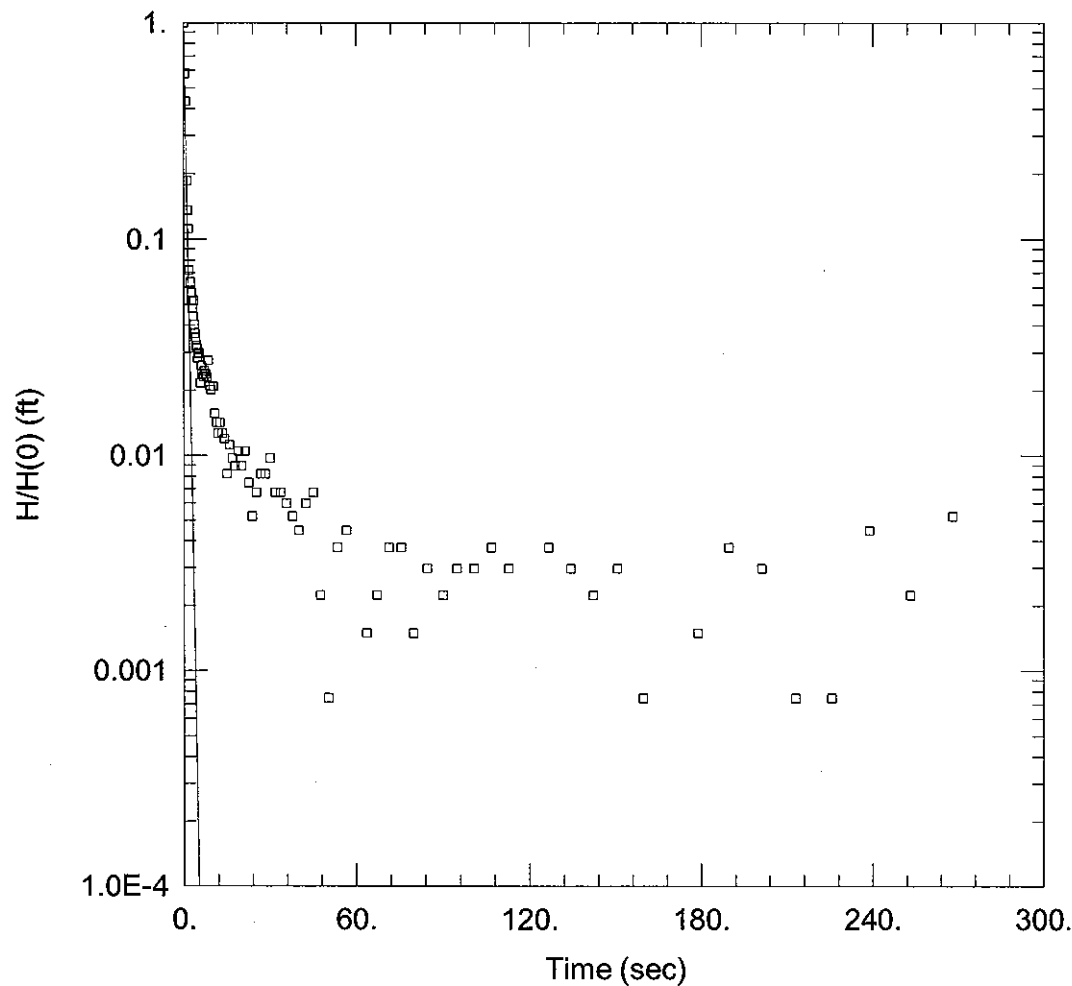
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

$K =$ 133.4 ft/day

$y_0 =$ 1.09 ft



MW-20S RISING HEAD TEST (4' SLUG)

Data Set: P:\...MW 20S Rising 4 (B-R).aqt

Date: 03/03/09

Time: 12:26:08

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-20S

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 9.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20S)

Initial Displacement: 1. ft

Static Water Column Height: 9.02 ft

Total Well Penetration Depth: 9.02 ft

Screen Length: 9.02 ft

Casing Radius: 0.08333 ft

Well Radius: 0.333 ft

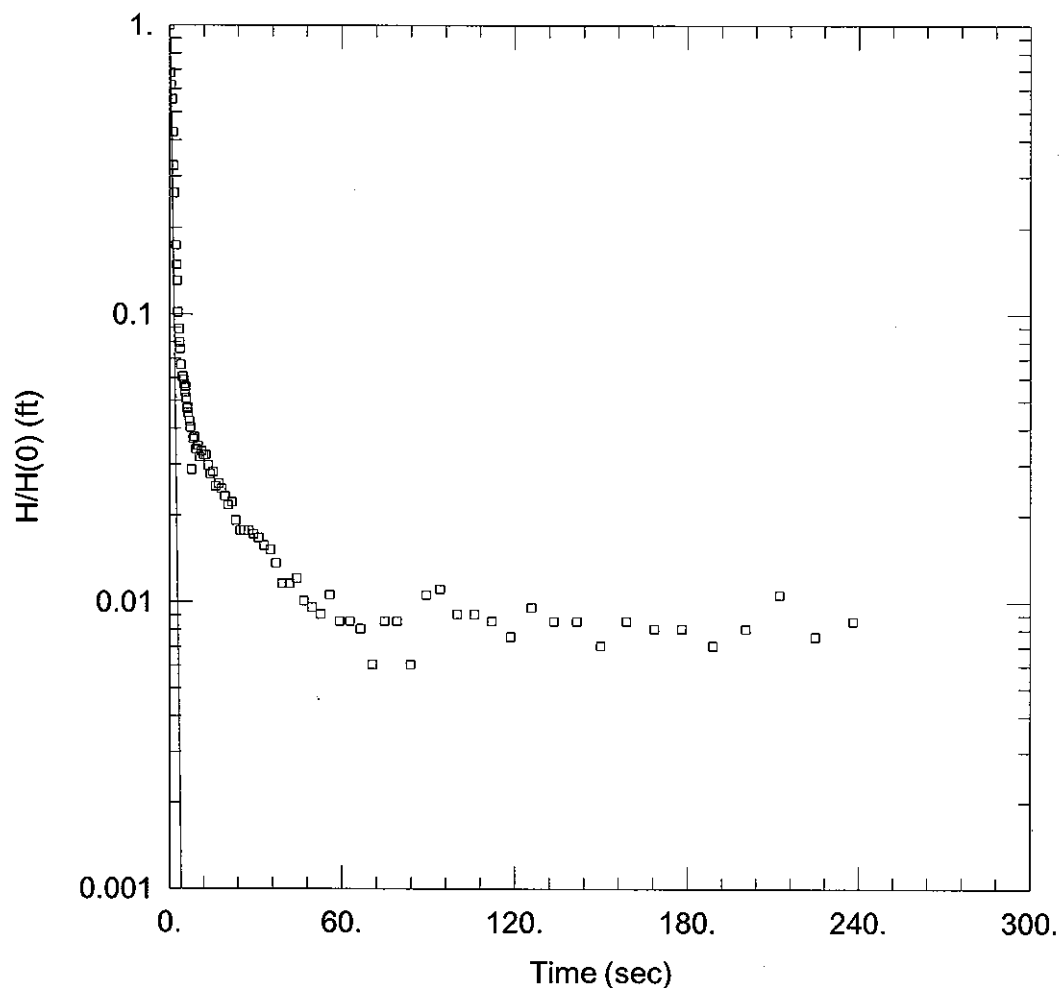
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 145.6 ft/day

y0 = 1.162 ft



MW-20S RISING HEAD TEST (7' SLUG)

Data Set: P:\...MW 20S Rising 7 (B-R).aqt

Date: 03/03/09

Time: 12:26:11

PROJECT INFORMATION

Company: URS Corporation

Client: National Grid

Project: 11175065

Location: Hempstead, New York

Test Well: MW-20S

Test Date: 2-18-09

AQUIFER DATA

Saturated Thickness: 9.02 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20S)

Initial Displacement: 1. ft

Static Water Column Height: 9.02 ft

Total Well Penetration Depth: 9.02 ft

Screen Length: 9.02 ft

Casing Radius: 0.08333 ft

Well Radius: 0.333 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 146.8 ft/day

y0 = 1.564 ft

41MW-20I

[illegible]

HI MW-20S

DRILLING SUMMARY	
Geologist: J. Harshman	
Drilling Company: Fenley + Nicol	
Driller: K. Kegel	
Rig Make/Model: Geoprobe 7720DT	
Date: 1.27.09	
GEOLOGIC LOG	
Depth(ft.)	Description
WELL DESIGN	

CASING MATERIAL	SCREEN MATERIAL	FILTER MATERIAL
Surface: Steel grade box	Type: 2" PVC Sch. 40	Type: #2 Sand Setting:
Monitor: 2" PVC	Slot Size: .020 .010	SEAL MATERIAL
COMMENTS:		Type: Bentonite Setting: Bent. Pellets
		LEGEND
		<div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #cccccc; border: 1px solid black; margin-right: 5px;"></div> Cement/Bentonite Grout </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #333333; border: 1px solid black; margin-right: 5px;"></div> Bentonite Seal </div> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 10px; background-color: #ffffff; border: 1px solid black; margin-right: 5px;"></div> Silica Sandpack </div>

Client: National Grid	Location: Hempstead, NY	Project No.: 11175065.00011
URS Corporation	MONITORING WELL CONSTRUCTION DETAILS	Well Number: HI MW-20S



Site Id: HIMW-01D

Date(s): 11/02/00 - 11/02/00

Datum: Mean Sea Level

Elevation: 69.39'

Measuring Point: 71.95'

Completed Depth: 124.00'

Total Depth: 152.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schafer

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 26.00' to: 36.00'

type: Slotted size: 0.010in dia: 2.00in fm: 74.00' to: 84.00'

type: Slotted size: 0.010in dia: 2.00in fm: 112.00' to: 122.00'

Remarks: Includes well screens for monitoring wells:
HIMW-01S, HIMW-01I and HIMW-01D
Logged from boring HISB-14.

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-4'				Posthole excavated - brown silty FILL w/brick		
4-6'			0.0 ppm	FILL, crushed red brick, some cement, blocky		
6-8'			0.0 ppm	Brown, silty FILL w/some fine gravel, red brick		
8-10'			0.0 ppm	Same as above, some wood fibers		
10-12'			87 ppm 111 ppm	Brown, silty FILL, some brick, black vesicular slag, cement, hydrocarbon-like odor, brown-black staining, dry-moist		
12-14'			114 ppm	Same as above		
14-16'			236 ppm	Brown, fine-coarse sandy FILL, wood, some fine gravel, hydrocarbon-like odor, loose, moist		
16-18'			446 ppm 208 ppm	Brown, fine-coarse SAND, hydrocarbon-like odor, intermittent black staining, loose, moist		
18-20'			130 ppm	Brown, fine-coarse SAND, hydrocarbon-like odor, black staining, loose, moist		
20-22'			300 ppm 281 ppm 443 ppm	Same as above		
22-24'			193 ppm 221 ppm 178 ppm	Brown, fine-medium SAND w/some coarse sand-fine gravel, hydrocarbon-like odor, slight black staining		
24-26'			254 ppm 283 ppm 201 ppm	Black, fine-medium SAND w/trace fine gravel, hydrocarbon-like odor, stained		
26-28'			301 ppm 261 ppm	Light brown, fine-medium SAND, hydrocarbon-like odor, some black staining, loose, moist		
28-30'			451 ppm 300 ppm 291 ppm 196 ppm	Brown, f-m SAND, NAPL saturated, hydrocarbon-like odor, stained, loose, moist Brown, very fine SAND, intermittent staining, hydrocarbon-like odor, med dense		

Consulting Firm: Dvirka & Bortilucci				Site Id: HIMW-01D		
Location: Hempstead				Date(s): 11/02/00 - 11/02/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		53 ppm 44 ppm		Brown, v fine-fine SAND w/f gravel, hydrocarbon-like odor, sl br staining,		
32-34'		34 ppm		Light brown, fine-medium SAND, hydrocarbon-like odor, loose, wet		
34-36'		15 ppm		Light brown, fine-coarse SAND w/fine-coarse gravel, slight hydrocarbon-like odor, loose, wet		
36-38'		15 ppm 10 ppm 8 ppm		Orange-brown, gravelly fine-coarse SAND w/fine-coarse gravel, medium dense, hydrocarbon-like odor, wet		
38-40'		8 ppm 0.9 ppm		Orange-brown, fine-coarse SAND w/some fine gravel, trace coarse gravel, medium dense, hydrocarbon-like odor, wet		
40-42'		18 ppm 6 ppm 3 ppm		Same as above		
42-44'		6 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-coarse SAND w/some fine gravel, loose, wet		
44-46'		0.0 ppm		Same as above		
46-48'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-medium SAND w/some coarse sand and fine gravel, loose, wet		
48-50'		0.0 ppm 0.0 ppm 0.0 ppm		Same as above		
50-52'		0.0 ppm 0.0 ppm 0.0 ppm		Brown, fine-coarse SAND w/trace fine gravel, loose, wet		
52-54'		0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-coarse SAND w/trace fine gravel, loose, wet		
54-56'		0.0 ppm		Same as above		
56-58'		45 ppm 57 ppm 82 ppm 289 ppm		Orange-brown, fine-coarse SAND w/some fine gravel, hydrocarbon-like odor, dark brown NAPL from 57.25-58', loose, wet		
58-60'		18 ppm 85 ppm 63 ppm 0.0 ppm		Orange-brown to gray, fine-coarse SAND w/some fine gravel, loose-medium dense, hydrocarbon-like odor, intermittent to slight staining, sheen, wet		
60-62'		93 ppm 51 ppm 8 ppm 10 ppm		Brown-gray, fine-medium SAND, naphthalene-like odor, slight staining and sheen, loose, wet		
62-64'		0.0 ppm 0.0 ppm 0.0 ppm		Gray, fine-medium SAND, loose, wet		
64-66'		0.0 ppm 1.5 ppm 2.4 ppm		Tan, fine SAND, medium dense w/silty sand lens at 65', wet		
66-68'		0.0 ppm 0.0 ppm		Yellow-brown, silty fine SAND, loose, wet		
68-70'		12.6 ppm 2.5 ppm 3.1 ppm 141 ppm		Brown, fine SAND w/yellow silty sand, loose-medium dense, naphthalene-like odor, black NAPL at 69.75', sheen, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-01D		
Location: Hempstead				Date(s): 11/02/00 - 11/02/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'	190 ppm 63 ppm	Br-yellow, f SAND, naphthalene-like odor, br staining @ 71.25', sheen, loose		
		72-74'	16 ppm 5 ppm 3 ppm 3 ppm	Brown-yellow-orange, very fine-fine SAND w/some silt, loose-medium dense, slight naphthalene-like odor, wet		
		74-76'	90 ppm 43 ppm	Orange-brown, very fine-fine SAND, medium dense, naphthalene-like odor, slight brown staining, sheen, wet		
		76-78'	1.7 ppm 5 ppm 10 ppm	Orange-brown, very fine-fine SAND, slight naphthalene-like odor and sheen, loose, wet		
		78-80'	7 ppm	Same as above, no sheen		
		80-82'	5 ppm 9 ppm	Orange-brown, very fine-fine SAND w/red and black banding, slight naphthalene-like odor, loose, wet		
		82-84'	18 ppm 9 ppm	Brown, very fine-fine SAND w/some silt, medium dense, slight naphthalene-like odor, wet		
		84-86'	0.3 ppm	Black-red-gray, very fine-fine SAND, orange-brown banding, medium dense, wet		
		86-88'	0.0 ppm 0.0 ppm	Same as above		
		88-90'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, no banding		
		90-92'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		92-94'	0.9 ppm 0.5 ppm 0.0 ppm	Same as above		
		94-96'	0.0 ppm 0.0 ppm 3.3 ppm	Orange-brown, very fine-fine SAND w/some silt, black-gray banding, loose, wet		
		96-98'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		98-100'	0.0 ppm 0.0 ppm 0.0 ppm 125 ppm	Same as above, 0.2' band of NAPL at 99.75', naphthalene-like odor		
		100-102'		No recovery		
		102-104'	122 ppm 8 ppm 5 ppm 4 ppm 72 ppm	Same as above (94-96'), sl band of staining at 102.5', naphthalene-like odor		
		104-106'	9 ppm 6 ppm	Tan-orange-brown, very fine-fine SAND w/some silt, gray-dark brown banding, naphthalene-like odor, brown NAPL lens at 104.5', wet		
		106-108'	0.8 ppm	Brown-orange brown, very fine-fine SAND w/some silt, loose, wet		
		108-110'	0.0 ppm 0.0 ppm 0.0 ppm 1.5 ppm	Brown-red, very fine-fine SAND w/red to brown to black banding, loose, wet		

Consulting Firm: Dvirko & Bartolucci				Site Id: HIMW-010		
Location: Hempstead				Date(s): 11/02/00 - 11/02/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112'	0.0 ppm	Brown-red, very fine-fine SAND w/some silt, medium dense, wet		
		112-114'	0.0 ppm	Same as above, trace silt and mica		
114		114-116'	0.0 ppm 1.2 ppm	Brown, very fine-fine SAND w/trace silt and mica, medium dense, wet		
		116-118'	0.0 ppm 0.0 ppm	Orange-brown to red-brown to brown, very fine-fine SAND, medium dense, wet		
		118-120'	0.0 ppm 0.0 ppm	Brown-red, very fine-fine SAND w/some mica, medium dense, wet		
120		120-122'	0.0 ppm	Yellow brown, silty very fine SAND, medium dense, wet		
		122-124'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		124-126'	0.0 ppm 0.0 ppm 0.0 ppm	Black, CLAY, micro gray v fine sand lenses, soft, moderately plastic, moist		
126		126-128'	0.0 ppm	Same as above		
		128-130'	0.0 ppm 0.0 ppm 0.0 ppm	Gray, v fine sandy SILT, soft, nonplastic, brown-black-gray banding, moist		
		130-132'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, .25' black clay layer at 128'		
132		132-134'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, no clay		
		134-136'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Gray-brown, CLAY w/some silt, soft, plastic		
		136-138'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Gray, sandy SILT w/v fine sand, soft, nonplastic, lt brown-bk bands, moist		
138		138-140'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty CLAY, soft, semiplastic, moist		
		140-142'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, SILT w/some very fine sand, soft, slightly plastic, moist		
		142-144'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
144		144-146'	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, sandy SILT w/very fine sand, soft, nonplastic, liquidy		
		146-148'	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, sandy SILT w/very fine sand, some clay, soft, nonplastic, moist		
		148-150'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, sandy SILT, soft, slightly plastic, liquid		
				Brown-gray, sandy SILT, soft, slightly plastic, wet		
				Same as above		
				Brown-gray, very fine-fine SAND w/some silt, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-01D		
Location: Hempstead				Date(s): 11/02/00 - 11/02/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		150 152	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, very fine-fine SAND w/some silt, medium dense, wet Base of boring - 152 ft.		
150						
145						
140						
135						
130						
125						
120						
115						
110						
105						
100						
95						
90						
85						
80						
75						
70						
65						
60						
55						
50						
45						
40						
35						
30						
25						
20						
15						
10						
5						
0						



Site Id: HIMW-04D

Date(s): 09/20/00 - 09/22/00

Datum: Mean Sea Level

Elevation: 73.37'

Measuring Point: 72.65'

Location: Hempstead

Completed Depth: 179.00'

Total Depth: 182.00'

Purpose: Monitoring Well, Deep

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 30.00' to: 40.00'
type: Slotted size: 0.020in dia: 2.00in fm: 80.00' to: 90.00'
type: Slotted size: 0.010in dia: 2.00in fm: 167.00' to: 177.00'

Logged By: J. Schafer

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in


Remarks: Includes well screens for monitoring wells:
HIMW-04S, HIMW-04I and HIMW-04D

Contractor: Delta Well & Pump

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-2'		0.0 ppm	0.0 ppm	Dark brown, TOPSOIL w/some sand and fine gravel, loose, dry		
2-4'				No recovery		
4-6'		0.0 ppm	0.0 ppm	Dark brown to tan, SILT w/trace fine sand, stiff, non-plastic, dry		
6-8'		0.0 ppm	0.0 ppm	Light brown, fine-coarse SAND w/some fine gravel, loose, dry		
8-10'		0.0 ppm	0.0 ppm	Light brown, fine-coarse SAND w/some fine gravel, trace coarse gravel, loose, dry		
10-12'		0.0 ppm	0.0 ppm	Light brown, fine-coarse SAND w/fine gravel, loose, dry		
12-14'		0.0 ppm	0.0 ppm	Brown, fine-medium SAND, loose, dry		
14-16'		0.0 ppm	0.0 ppm	Brown, fine-coarse SAND w/some fine gravel, several brown silt lenses, loose, dry		
16-18'		0.0 ppm	0.0 ppm	Brown, fine-coarse SAND w/some brown silt, trace fine gravel, loose, dry		
18-20'		0.0 ppm		Brown, silty fine-coarse SAND w/some fine gravel, loose-medium dense, dry		
20-22'		0.0 ppm	0.0 ppm	Brown-black, fine-coarse SAND w/fine gravel, trace brown silt, loose, dry		
22-24'		0.0 ppm	0.0 ppm	Same as above		
24-26'		0.0 ppm	0.0 ppm	Same as above		
26-28'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/trace fine gravel, loose, dry		
28-30'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, dry		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-040		
Location: Hempstead				Date(s): 09/20/00 - 09/22/00		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		30-32'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, dry		
32-34'		32-34'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND w/trace medium sand, loose, dry (wet at 32.5')		
34-36'		34-36'	0.0 ppm	Brown, fine SAND, medium dense, wet		
36-38'		36-38'	0.0 ppm 0.0 ppm	Brown, fine SAND w/some medium sand, medium dense, wet		
38-40'		38-40'	0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/some coarse sand and fine gravel, medium dense		
40-42'		40-42'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
42-44'		42-44'	0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/trace coarse sand and fine gravel, medium dense, wet		
44-46'		44-46'	0.0 ppm 0.0 ppm	Same as above		
46-48'		46-48'	0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel, medium dense, wet		
48-50'		48-50'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, gravelly fine-coarse SAND, medium dense, wet		
50-52'		50-52'	0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel		
52-54'		52-54'	0.0 ppm	Brown, fine SAND, medium dense, wet		
54-56'		54-56'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/trace coarse sand and fine gravel, medium dense, wet		
56-58'		56-58'	0.0 ppm 0.0 ppm	Same as above		
58-60'		58-60'	0.0 ppm 0.0 ppm	Same as above		
60-62'		60-62'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/trace fine gravel, medium dense, wet		
62-64'		62-64'	0.0 ppm 0.0 ppm	Brown, fine SAND, medium dense, wet		
64-66'		64-66'	0.0 ppm 0.0 ppm	Brown, fine SAND, silt lens at 64.75' (brown, plastic, semi-soft), medium dense, wet		
66-68'		66-68'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND, several silt lenses (plastic, soft), medium dense, wet		
68-70'		68-70'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, fine SAND, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-04D		
Location: Hempstead				Date(s): 09/20/00 - 09/22/00		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		0.0 ppm	ppm	Brown-gray, fine SAND w/brown silt lenses, medium dense, wet		
72-74'		0.0 ppm	ppm	Same as above		
74-76'		0.0 ppm	ppm	Light brown-gray, fine SAND, medium dense, wet		
76-78'		0.0 ppm	ppm	Gray, fine SAND w/brown silt lenses, medium dense, wet		
78-80'		0.0 ppm	ppm	Gray, fine SAND, medium dense, wet		
80-82'		0.0 ppm	ppm	Gray, fine SAND to mottled gray-brown sandy SILT, medium dense, wet		
82-84'		0.0 ppm	ppm	Orange-brown, fine SAND w/some brown silt, medium dense, wet		
84-86'		0.0 ppm	ppm	Orange-brown, fine SAND w/silty clay lenses, medium dense, wet		
86-88'		0.0 ppm	ppm	Brown, fine SAND w/some silt, medium dense, wet		
88-90'		0.0 ppm	ppm	Brown, fine SAND w/some silt, dark brown banding, medium dense, wet		
90-92'		0.0 ppm	ppm	Same as above		
92-94'		0.0 ppm	ppm	Orange-brown, fine silty SAND w/dark brown-gray banding, medium dense, wet		
94-96'		0.0 ppm	ppm	Same as above		
96-98'		0.0 ppm	ppm	Same as above		
98-100'		0.0 ppm	ppm	Same as above		
100-102'		0.0 ppm	ppm	Same as above		
102-104'		0.0 ppm	ppm	Same as above		
104-106'		0.0 ppm	ppm	Orange-brown, fine SAND w/some silt, dark brown banding, medium dense, wet		
106-108'		0.0 ppm	ppm	Brown, fine SAND, medium dense, wet		
108-110'		0.0 ppm	ppm	Brown, fine SAND w/some silt, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-04D			
Location: Hempstead				Date(s): 09/20/00 - 09/22/00			
Purpose: Monitoring Well, Deep				Total Depth: 182.00'			
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones	
		110-112	0.0 ppm 0.0 ppm	Brown, fine SAND w/some dark-red br silt banding, med dense-dense, wet			
		112-114	0.0 ppm	Brown, fine silty SAND, dense, wet			
115		114-116	0.0 ppm 0.0 ppm	Brown, fine silty SAND, clay lens at 115', gray-dark brown banding, medium dense, wet			
		116-118	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, no clay			
		118-120	0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
120		120-122	0.0 ppm 0.0 ppm	Same as above			
		122-124	0.0 ppm 0.0 ppm	Brown, fine SAND w/some silt, gray-dark brown banding, medium dense, wet			
		124-126	0.0 ppm 0.0 ppm	Same as above			
125		126-128	0.0 ppm 0.0 ppm	Same as above			
		128-130	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
130		130-132	0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		132-134	0.0 ppm 0.0 ppm	Brown, fine sandy SILT, gray-dark brown banding, slightly plastic, soft, wet			
135		134-136	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine silty SAND, gray-dark brown banding, medium dense, wet			
		136-138	0.0 ppm 0.0 ppm 0.0 ppm	Brown, sandy SILT, gray-dark brown banding, plastic, soft, wet			
		138-140	0.0 ppm 0.0 ppm 0.0 ppm	Brown, SILT w/some fine sand, plastic, soft, wet			
140							
		144-146	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine sandy SILT, gray-dark brown banding, slightly plastic, semi-soft, wet			
145							
		148-151	0.0 ppm 0.0 ppm	Same as above			

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-04D		
Location: Hempstead				Date(s): 09/20/00 - 09/22/00		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
			0.0 ppm	Brown, fine sandy SILT, gray-dark brown banding, slightly plastic, semi-soft, wet		
154		154-156	0.0 ppm 0.0 ppm	Brown, SILT w/fine gravel, slightly plastic, semi-soft, wet		
159		159-161	0.0 ppm 0.0 ppm 0.0 ppm	Brown, coarse sandy SILT, slightly plastic, wet		
164		164-166	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
169		169-171	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, coarse sandy SILT, gray-dark brown banding, slightly plastic, semi-soft, wet		
174		174-176	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SILT w/some sand, clay lenses, gray-dark brown banding, slightly plastic		
176		176-178	0.0 ppm 0.0 ppm 0.0 ppm	Brown, SILT w/fine sand, clay, sl plastic-plastic, soft, moist Brown, CLAY, soft, plastic, dry-moist		
180		180-182	0.0 ppm 0.0 ppm 0.0 ppm	Dark brown, CLAY, stiff, plastic, moist Base of boring - 182'		



Site Id: HIMW-020

Date(s): 10/13/00 ~ 10/16/00

Datum: Mean Sea Level

Elevation: 71.73'

Measuring Point: 74.13'

Completed Depth: 116.00'

Total Depth: 130.50'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 28.00' to: 38.00'
type: Slotted size: 0.020in dia: 2.00in fm: 78.00' to: 88.00'
type: Slotted size: 0.020in dia: 2.00in fm: 104.00' to: 114.00'

Remarks: Includes well screens for monitoring wells:
HIMW-02S, HIMW-02I and HIMW-02D
Upper 60' logged from boring H1SB-13.

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-4'		10.5 ppm 11.0 ppm 1.6 ppm 5.6 ppm 0.6 ppm 51.5 ppm		Bluestone, FILL, TOPSOIL, gravel, black coal tar, naphthalene-like odor Dark-moderate yellowish brown, CLAY, trace silt and f gravel, soft Dusky yellowish brown-dark gray, CLAY w/little silt, soft, odor		
4-8'		1.1 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Dark, yellow brown, CLAY, soft, trace silt Grayish brown-moderate yellowish brown, coarse-v coarse SAND w/fine-coarse gravel, trace silt		
8-12'		0.0 ppm 2.40 ppm 9.70 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish brown, medium-very coarse silty SAND Dark-moderate yellowish brown, soft CLAY w/fine gravel, black silt, sl odor Dark yellowish orange-moderate yellowish brown, coarse-very coarse SAND w/fine-coarse gravel		
12-16'		0.2 ppm 0.0 ppm 0.7 ppm 0.0 ppm 0.0 ppm 0.1 ppm 0.0 ppm		Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, trace silt Dark yellowish brown, medium-very coarse SAND w/fine gravel, same silt Dark yellowish orange-grayish orange-lt brown, coarse-very coarse SAND w/fine gravel		
16-20'		1.1 ppm 0.9 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Same as above Dark yellowish orange-light brown, medium-very coarse SAND, trace silt		
20-24'		1.6 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish orange-moderate brown, coarse-very coarse SAND w/fine gravel		
24-28'		0.0 ppm 0.4 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish orange-grayish orange-moderate brown, medium-very coarse SAND w/fine-coarse gravel, trace silt		
28-32'		2.2 ppm 0.6 ppm 0.0 ppm 0.0 ppm		Same as above, dark yellowish orange/brown and light brown, some mica Moderate-light brown, medium-coarse SAND, some mica, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-02D		
Location: Hempstead				Date(s): 10/13/00 - 10/16/00		
Purpose: Monitoring Well, Deep				Total Depth: 130.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
32-36'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate-light brown, medium-coarse SAND, some mica, wet Moderate brown-dark yellowish orange, very coarse-coarse SAND w/fine-medium gravel, wet		
36-40'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Grayish yellow-dark and moderate yellowish brown, medium SAND w/some very coarse sand and fine gravel, micaceous		
43-45'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, med-coarse SAND w/some very coarse sand, wet Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
48-50'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate-dark yellowish brown, med-coarse SAND w/f gravel, some mica Pale yellowish brown, coarse-very coarse SAND w/fine-coarse gravel, wet		
53-55'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
58-60'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/some fine gravel and mica		
60-62'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Lt orange-brown, fine-coarse SAND w/some fine-coarse gravel, loose, wet		
62-64'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel, loose, wet		
64-66'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Orange-brown, fine SAND, w/slight dark brown banding, fine sandy silt lens, loose, wet		
66-68'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Light brown-orange brown-black, fine SAND w/mica, medium dense, wet		
68-70'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Brown, fine SAND, semi-loose, wet Orange-brown, silty fine SAND, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: H1MW-02D		
Location: Hempstead				Date(s): 10/13/00 - 10/16/00		
Purpose: Monitoring Well, Deep				Total Depth: 130.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		70-72'	0.0 ppm 0.0 ppm	Orange-brown, sandy SILT w/some clay, soft, loose, dense		
72-74'		72-74'	0.0 ppm	Orange-brown, silty fine SAND, medium dense, wet		
74-76'		74-76'	0.0 ppm	Same as above		
76-78'		76-78'	0.0 ppm	Orange brown-red brown, silty fine SAND w/some clay, gray-black bonding, medium dense, wet		
78-80'		78-80'	0.0 ppm	Light brown-orange brown, fine SAND, medium dense, wet		
80-82'		80-82'	0.0 ppm	Same as above		
82-84'		82-84'	0.0 ppm	Same as above		
84-86'		84-86'	0.0 ppm	Light brown-orange brown, fine SAND w/some silt, medium dense, wet		
86-88'		86-88'	0.0 ppm 0.0 ppm	Same as above		
88-90'		88-90'	0.0 ppm 0.0 ppm	Gray orange-pale yellowish orange, fine-med SAND w/some silt, micaceous, trace coarse gravel and clay, wet		
90-92'		90-92'	0.0 ppm 0.0 ppm	Grayish orange-mod yellowish brown, fine-medium SAND w/some silt, micaceous, trace clay, wet		
92-94'		92-94'	0.0 ppm 0.0 ppm	Pale yellowish brown-dk yellowish orange, fine-medium SAND w/some silt, micaceous, wet		
94-96'		94-96'	0.0 ppm 0.0 ppm	Pale yellowish brown-yellowish gray, medium SAND w/some silt, micaceous, thinly bedded dk yellowish brown, micaceous clay, wet		
96-98'		96-98'	0.0 ppm 0.0 ppm	Dark yellowish orange-pale yellowish brown, medium SAND, micaceous, trace silt, wet		
98-100'		98-100'	0.0 ppm 0.0 ppm	Same as above		
100-102'		100-102'	0.3 ppm 0.2 ppm	Grayish orange to pale-dark yellowish orange, medium SAND, micaceous, thinly bedded dk yellowish brown, micaceous clay, wet		
102-104'		102-104'	0.2 ppm 0.3 ppm	Same as above		
104-106'		104-106'	0.7 ppm	Same as above		
106-108'		106-108'	1.1 ppm	Yellowish gray-dark yellowish orange, medium SAND, micaceous, wet		
108-111'		108-111'	1.2 ppm 1.3 ppm	Gray orange-dk yellow orange-lt brown-mod red brown, medium-coarse SAND w/some mica, thinly bedded dk yellowish brown clay, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-02D		
Location: Hempstead				Date(s): 10/13/00 - 10/16/00		
Purpose: Monitoring Well, Deep				Total Depth: 130.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112'	1.4 ppm	Gray orange-dk yellow orange-lt brown-mod red brown, medium-coarse SAND w/some mica, thinly bedded dk yellowish brown clay, wet		
		112-114'	0.0 ppm 1.1 ppm			
114		114-116'	0.7 ppm 0.0 ppm	Mod yellow br-lt br-dk yellow orange, f-c SAND w/some silt, tr clay, wet		
		116-118'	0.0 ppm 0.0 ppm	Yellowish gray, fine SAND w/some silt and clay, micaceous, wet		
118		118-120'	0.0 ppm 0.0 ppm	Dark yellowish orange-yellowish gray, clayey fine SAND, micaceous, wet		
		120-122'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, medium stiff, dry		
122		122-124'	0.6 ppm 0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, thinly bedded micaceous fine sand, stiff, dry		
		124-126'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, some medium gray micaceous fine sand, medium stiff, dry		
126		126-128'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		128-130.5'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray. CLAY w/trace silt, micaceous, medium stiff		
130				Dark gray. CLAY w/little silt, micaceous, soft-medium stiff		
				Same as above (Shelby tube)		
				Base of boring - 130.5 ft.		



Site Id: HIMW-03D

Date(s): 09/06/00 - 09/07/00

Datum: Mean Sea Level

Elevation: 65.88'

Measuring Point: 65.26'

Completed Depth: 145.00'

Total Depth: 151.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schofer

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 23.00' to: 33.00'

type: Slotted size: 0.020in dia: 2.00in fm: 80.50' to: 90.50'

type: Slotted size: 0.010in dia: 2.00in fm: 133.00' to: 143.00'

Remarks: Includes well screens for monitoring wells:
HIMW-03S, HIMW-03I and HIMW-03D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-2'		0-2'	7.9 ppm 31 ppm 11 ppm 65 ppm	Brown, silty FILL, coal, vesicular slag, white crumbly material, dry		
2-4'		2-4'		Brown-orange, sandy SILT, soft, dry		
4-6'		4-6'	0.0 ppm 0.0 ppm 2.2 ppm	Dark brown, sandy SILT, soft, dry		
6-8'		6-8'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, dry		
8-10'		8-10'	0.0 ppm	Orange-brown, fine-medium SAND w/some fine-coarse gravel, loose, dry		
10-12'		10-12'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/trace silt, some fine gravel, loose, dry		
12-14'		12-14'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, dry		
14-16'		14-16'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/trace silt, some fine gravel, loose, dry		
16-18'		16-18'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, dry		
18-20'		18-20'	0.0 ppm 0.0 ppm	Same as above		
20-22'		20-22'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/fine gravel, loose, dry		
22-24'		22-24'	0.0 ppm 0.0 ppm	Orange-brown, fine-medium SAND w/some coarse sand, trace fine gravel, loose, dry		
24-26'		24-26'	0.0 ppm 0.0 ppm	Orange-brown, fine-medium SAND w/some coarse sand and fine gravel, loose, dry		
26-28'		26-28'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND, medium dense, wet		
28-30'		28-30'	0.0 ppm 0.0 ppm	Brown, fine SAND w/some medium sand, medium dense, wet		
30-32'		30-32'	0.0 ppm 0.0 ppm	Brown, very fine-coarse SAND w/some fine gravel at 28.5', medium dense, wet		

Consulting Firm: Dvirka & Bartilucci

Site Id: HMW-03D

Location: Hempstead

Date(s): 09/06/00 - 09/07/00

Purpose: Monitoring Well, Deep

Total Depth: 151.00'

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		0.0 ppm	0.0 ppm	Brown-orange, fine-coarse SAND w/some fine gravel, med dense, wet		
32-34'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, med dense, wet		
34-36'		0.0 ppm	0.0 ppm	Orange-brown, fine SAND w/some medium-coarse sand, trace fine gravel, medium dense, wet		
36-38'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/trace fine gravel, medium dense, wet		
38-40'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, medium dense, wet		
40-42'		0.0 ppm	0.0 ppm	Same as above		
42-44'		0.0 ppm	0.0 ppm	Same as above		
44-46'		0.0 ppm	0.0 ppm	Same as above		
46-48'		0.0 ppm	0.0 ppm	Orange-brown, fine-medium SAND w/some coarse sand, trace fine gravel, medium dense, wet		
48-50'		0.0 ppm	0.0 ppm	Orange-brown, fine-medium SAND w/some coarse sand, medium dense, wet		
50-52'		0.0 ppm	0.0 ppm	Same as above		
52-54'		0.0 ppm	0.0 ppm	Brown-orange, fine-coarse SAND, medium dense, wet		
54-56'		0.0 ppm	0.0 ppm	Orange-brown, medium-coarse SAND w/some fine sand and gravel, medium dense, wet		
56-58'		0.0 ppm	0.0 ppm	Tan, fine SAND, medium dense, wet		
58-60'		0.0 ppm	0.0 ppm	Light brown, fine-medium SAND w/some coarse sand, trace fine gravel, medium dense, wet		
60-62'		0.0 ppm	0.0 ppm	Light brown, fine SAND w/some medium sand, medium dense, wet		
62-64'		0.0 ppm	0.0 ppm	Light brown, fine SAND w/some medium sand, medium dense, wet, iron-red staining		
64-66'		0.0 ppm	0.0 ppm	Light brown, fine SAND, medium dense, wet		
66-68'		0.0 ppm	0.0 ppm	Light brown to light red, fine SAND w/some medium sand, some silt, medium dense, wet		
68-70'		0.0 ppm	0.0 ppm	Light brown to light red, fine SAND w/some medium sand, some silt, medium dense-dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-03D			
Location: Hempstead				Date(s): 09/06/00 - 09/07/00			
Purpose: Monitoring Well, Deep				Total Depth: 151.00'			
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones	
		70-72'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light brown to light red, fine SAND, medium dense, wet			
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light red to tan, fine SAND w/some silt, medium dense, wet			
		74-76'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light red-brown, fine SAND w/some silt, medium dense, wet			
		76-78'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine sandy SILT, semi-hard, non-plastic, black banding, wet			
		78-80'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND w/some silt, to brown sandy SILT, banding, soft, slightly plastic, wet			
		80-82'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine sandy SILT, banding, soft, non-plastic, wet			
		82-84'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine sandy SILT w/brown, black and gray banding, soft, slightly plastic, wet			
		84-86'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		86-88'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		88-90'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		90-92'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty fine SAND w/banding (orange-brown-black-gray), liquid to medium dense			
		92-94'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		94-96'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above			
		96-98'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above, grading to orange-brown fine SAND			
		98-100'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above (90-92')			
		100-102'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above (90-92')			
		102-104'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty fine SAND w/orange-brown banding, medium dense, wet			
		104-106'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty fine SAND, medium dense, wet			
		106-108'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/some silt, dark red-brown banding, medium dense, wet			
		108-110'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/some dark brown silt, medium dense, wet			

Consulting Firm: Dvirka & Bartilucci

Site Id: HIMW-03D

Location: Hempstead

Date(s): 09/06/00 - 09/07/00

Purpose: Monitoring Well, Deep

Total Depth: 151.00'

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110-112		0.0 ppm	ppm	Brown, fine-medium SAND w/trace silt, medium dense, wet		
112-114		0.0 ppm	ppm	Brown, fine SAND w/some dark brown silt, medium dense, wet		
114-116		0.0 ppm	ppm	Brown, silty fine SAND, medium dense, wet		
116-118		0.0 ppm	ppm	Brown, fine sandy SILT w/brown, gray and black banding, semi-stiff, slightly plastic		
118-120		0.0 ppm	ppm	Brown, fine SAND, medium dense, wet		
120-122		0.0 ppm	ppm	Brown, sandy SILT w/silt, banding, stiff, semi-plastic		
122-124		0.0 ppm	ppm	Brown, fine sandy SILT w/gray, black and brown banding, stiff, semi-plastic, wet		
124-126		0.0 ppm	ppm	Brown, fine sandy SILT, mottled with black, gray and dark brown banding, liquid, soft		
126-128		0.0 ppm	ppm	Same as above		
128-130		0.0 ppm	ppm	Same as above		
130-132		0.0 ppm	ppm	Brown to orange brown, fine sandy SILT, slightly stiff, wet		
132-134		0.0 ppm	ppm	Brown to gray, fine sandy SILT w/some banding, soft, slightly plastic, wet		
134-136		0.0 ppm	ppm	Same as above		
136-138		0.0 ppm	ppm	Light brown to orange-brown, silty fine SAND w/banding, dense, wet		
138-140		0.0 ppm	ppm	Same as above		
145-147		0.0 ppm	ppm	Brown, silty fine-medium SAND, medium dense, wet		
147-149		0.0 ppm	ppm	Gray, CLAY, thin lens of black silt, very stiff, plastic, moist		
149-151		0.0 ppm	ppm	Gray, SILT, trace sand (Shelby tube)		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-03D		
Location: Hempstead				Date(s): 09/06/00 - 09/07/00		
Purpose: Monitoring Well, Deep				Total Depth: 151.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
150 155 160 165 170 175 180 185				Gray, SILT, trace sand (Shelby tube) Base of boring - 151 ft.		



Site Id: HIMW-05D

Date(s): 09/08/00 - 09/11/00

Datum: Mean Sea Level

Elevation: 67.38'

Measuring Point: 67.22'

Completed Depth: 142.00'

Total Depth: 172.00'

Location: Hempstead

Purpose: Monitoring Well, Intermediate

Logged By: B. Ryan

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.010in dia: 2.00in fm: 27.00' to: 37.00'

type: Slotted size: 0.010in dia: 2.00in fm: 80.00' to: 90.00'

type: Slotted size: 0.020in dia: 2.00in fm: 130.00' to: 140.00'


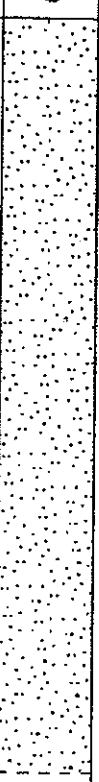





Remarks: Includes well screens for monitoring wells:
HIMW-05S, HIMW-05I and HIMW-05D
Upper 60' logged from boring HISB-28.

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-4'				Brown, silty fine-coarse SAND w/some fine gravel, trace clay, loose, wet		
4-8'				Same as above		
8-12'				Orange-brown, fine-coarse SAND w/some fine gravel, loose, moist		
12-16'				Same as above		
16-20'				Same as above		
20-24'				Orange brown-light brown, fine-coarse SAND w/fine gravel, loose, moist		
24-28'				Orange brown, fine-medium SAND w/trace coarse sand, loose, moist		
28-32'				Brown, fine SAND w/dark brown banding, dense, wet at 29'		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-050		
Location: Hempstead				Date(s): 09/08/00 - 09/11/00		
Purpose: Monitoring Well, Intermediate				Total Depth: 172.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		32-36'		Brown, fine SAND w/dark brown banding, dense, wet Tan-orange-brown, fine SAND w/some medium-coarse SAND, trace fine gravel, medium dense, wet		
		36-40'		Gravelly medium-coarse SAND to sandy fine-coarse GRAVEL, slight hydrocarbon-like odor, loose, wet		
		40-44'		Brown, gravelly medium-coarse SAND w/fine-coarse gravel, red iron staining, naphthalene-like odor, loose, wet		
		44-48'		Orange-brown, fine-coarse SAND w/trace fine gravel, naphthalene-like odor, dense, wet		
		50-52'		Orange-brown, fine-coarse SAND w/some fine gravel, slight naphthalene-like odor, medium dense, wet		
		52-54'		Light orange brown, coarse SAND w/some fine sand and fine gravel, naphthalene-like odor, medium dense, wet		
		54-56'		Light orange-brown, fine-coarse SAND w/some fine gravel, naphthalene-like odor, medium dense, wet		
		56-58'		Light orange brown, fine-coarse SAND w/fine gravel, naphthalene-like odor, loose, wet		
		58-60'		Light brown, fine-coarse SAND w/some gravel, naphthalene-like odor, medium dense, wet		
		60-62'	0.0 ppm	Brown-orange, fine-medium SAND w/some fine gravel, loose, wet		
		62-64'	0.0 ppm 5.3 ppm	Brown, fine SAND w/trace fine and coarse gravel, loose, wet		
		64-66'	0.0 ppm 0.0 ppm	Brown-gr brown, fine-medium SAND w/trace coarse sand and clay, minor black staining, slight naphthalene-like odor, loose, wet		
		66-68'	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, very fine-medium SAND w/trace fine gravel and sandy clay, naphthalene-like odor, loose-medium dense, wet		
		68-70'	0.0 ppm 0.0 ppm 10.2 ppm	Brown, very fine-fine SAND w/some coarse sand, bk and gray staining, naphthalene-like odor at 68.5', medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-050		
Location: Hempstead				Date(s): 09/08/00 - 09/11/00		
Purpose: Monitoring Well, Intermediate				Total Depth: 172.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		70-72'	1.7 ppm 0.0 ppm	Brown, v fine-med SAND w/trace f gravel and sandy clay, loose, wet		
72-74'		72-74'	0.0 ppm 0.0 ppm 1.7 ppm	Brown-gray, very fine-coarse SAND w/trace sandy clay, bk banding, minor staining at 73', sl naphthalene-like odor, med dense-loose, wet		
74-76'		74-76'	0.4 ppm	Brownish-orange, fine-medium SAND, slight naphthalene-like odor, loose, wet		
76-78'		76-78'	0.6 ppm 3.2 ppm	Lt brownish-orange, fine SAND w/trace clay, black banding at 76.8', slight naphthalene-like odor, loose, wet		
78-80'		78-80'	0.0 ppm 0.0 ppm 9.2 ppm	Brownish orange, fine-med SAND w/trace silt, 4" layer of gray silty clay, slight naphthalene-like odor, loose, wet		
80-82'		80-82'	0.0 ppm 0.0 ppm	Brownish-orange, v fine-med SAND w/trace clay, spotty black staining, slight naphthalene-like odor, loose, wet		
82-84'		82-84'	0.0 ppm 0.0 ppm	Brownish-orange, v fine-med SAND w/trace silt and fine gravel, black banding from 82.4-82.9', naphthalene-like odor, loose, wet		
84-86'		84-86'	0.0 ppm 0.0 ppm 0.5 ppm	Lt br yellowish orange, v fine-fine silty SAND w/trace clay, grayish-black banding at 84.25-85.25', med dense, wet		
86-88'		86-88'	0.0 ppm 0.0 ppm	Reddish brown-orange, fine SAND, black banding, slight naphthalene-like odor, loose, wet		
88-90'		88-90'	0.0 ppm 6.3 ppm	Brownish orange, fine SAND, slight naphthalene-like odor, loose, wet		
90-92'		90-92'	0.0 ppm 0.0 ppm 0.0 ppm	Brownish-orange, fine-medium SAND w/trace silt, mild naphthalene-like odor, loose, wet		
92-94'		92-94'	0.0 ppm 0.0 ppm	Lt brownish orange, fine SAND w/trace silt, black banding at 92.5', slight naphthalene-like odor, loose, wet		
94-96'		94-96'	0.0 ppm 0.0 ppm	Brownish-orange, silty very fine SAND, medium dense, wet		
96-98'		96-98'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty very fine SAND, minor black banding at 96.7-97', mild naphthalene-like odor, medium dense, wet		
98-100'		98-100'	0.0 ppm 0.0 ppm 0.0 ppm	Brownish-orange, silty fine SAND, minor black staining at 99.7', naphthalene-like odor, medium dense, wet		
100-102'		100-102'	6.4 ppm 2.9 ppm 4.1 ppm	Brownish-orange, silty fine SAND, black staining at 100-100.5', naphthalene-like odor, medium dense, wet		
102-104'		102-104'	0.0 ppm 0.0 ppm	Same as above, black staining at 102', mild naphthalene-like odor		
104-106'		104-106'	0.0 ppm 35.5 ppm	Brownish-orange, silty fine SAND, mild naphthalene-like odor, medium dense, wet		
106-108'		106-108'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, black staining at 106.8', mild naphthalene-like odor		
108-110'		108-110'	9.6 ppm 1.3 ppm	Same as above, no staining		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-05D		
Location: Hempstead				Date(s): 09/08/00 - 09/11/00		
Purpose: Monitoring Well, Intermediate				Total Depth: 172.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		110-112'	0.9 ppm	Brownish-orange, silty fine SAND, medium dense, wet		
		112-114'	0.0 ppm 0.9 ppm	Same as above		
		114-116'	0.0 ppm 0.0 ppm	Same as above		
115		116-118'	0.0 ppm 0.0 ppm	Orange, silty fine SAND w/white-gray banding, medium dense, wet		
		118-120'	0.0 ppm 0.0 ppm 0.0 ppm	Orange brown, silty CLAY, very soft, plastic, wet		
118		120-122'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		122-124'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
122		124-126'	0.0 ppm 0.0 ppm 0.0 ppm	Light brownish-orange-gray, silty SAND w/trace clay, medium dense, wet		
		126-128'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
126		128-130'	0.0 ppm 0.0 ppm 0.0 ppm	Multicolored, silty fine SAND w/trace clay, medium dense, wet		
		130-132'	0.0 ppm 0.0 ppm 0.0 ppm	Multicolored, silty CLAY, very soft, moist		
130		132-134'	0.0 ppm 0.0 ppm 0.0 ppm	Multicolored, SILT w/trace fine sand, medium dense, wet		
		134-136'	0.0 ppm 0.0 ppm 0.0 ppm	Multicolored, silty fine SAND w/trace clay, medium dense, wet		
134		136-138'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty CLAY w/fine sand, medium dense, wet		
		138-140'	0.0 ppm 0.0 ppm 0.0 ppm	Multicolored, silty fine SAND w/trace clay, dense, wet		
138		140-142'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		142-144'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
142		144-146'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		146-148'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
146		148-150'	0.0 ppm 0.0 ppm 0.0 ppm	Brownish orange, silty fine SAND, dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-05D		
Location: Hempstead				Date(s): 09/08/00 - 09/11/00		
Purpose: Monitoring Well, Intermediate				Total Depth: 172.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
150		150-152'	0.0 ppm 0.0 ppm	Brownish orange-gray (speckled), silty v fine SAND, dense, wet		
152		152-154'	0.0 ppm 0.0 ppm 0.0 ppm	Some as above		
154		154-156'	0.0 ppm 0.0 ppm	Some as above		
160		160-162'	0.0 ppm 0.0 ppm 0.0 ppm	Brownish orange-gray, silty fine SAND, dense, wet		
165		165-167'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty SAND, dense, wet		
171		171-172'	0.0 ppm 0.0 ppm	Brownish-orange (speckled), silty SAND, medium dense, wet		
				Base of boring - 172 ft.		
175						
180						
185						



Site Id: HIMW-06D

Date(s): 10/02/00 - 10/03/00

Datum: Mean Sea Level

Elevation: 67.89'

Measuring Point: 67.77'

Completed Depth: 118.00'

Total Depth: 132.50'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 25.50' to: 35.50'
type: Slotted size: 0.020in dia: 2.00in fm: 72.00' to: 82.00'
type: Slotted size: 0.010in dia: 2.00in fm: 106.00' to: 116.00'

Remarks: Includes well screens for monitoring wells:
HIMW-06S, HIMW-06I and HIMW-06D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
				NOTE: Drilled down to 10'. Sampling begins at 10'. Grayish black, coarse-very coarse SAND w/fine gravel, heavy staining, naphthalene-like odor and saturated with NAPL at 8'		
11		10-12'	175 ppm 218 ppm 156 ppm	Dk yellowish brown, coarse-very coarse SAND w/some fine gravel, staining, naphthalene-like odor, zones of heavy staining		
12		12-14'	398 ppm 174 ppm 239 ppm	Dk yellowish brown, medium-very coarse SAND w/fine gravel, saturated with NAPL, staining, naphthalene-like odor		
14		14-16'	156 ppm 828 ppm	Dk yellowish brown, m-c SAND w/f-c gravel, saturated with NAPL, heavy staining, naphthalene-like odor HCN = 0.3 ppm @ 14.5'		
16		16-18'	469 ppm 535 ppm	Dk yellowish orange-dk yellowish brown, med-very coarse SAND w/f gravel, naphthalene-like odor, heavy staining HCN = 0.3 ppm @ 16.5'		
18		18-20'	533 ppm 900 ppm 780 ppm	Mod-dk yellowish brown, med-v coarse SAND w/fine gravel, naphthalene-like odor, zones of heavy staining HCN = 1.7 ppm @ 19'		
20		20-22'	1311 ppm 1973 ppm	Mod-dk yellowish brown, coarse-v coarse SAND w/fine-coarse gravel, strong naphthalene-like odor, zones of heavy staining		
22		22-24'	795 ppm 2000+ ppm 2000+ ppm	Mod-dk yellowish brown, med-v coarse SAND w/f-c gravel, naphthalene-like odor, staining, zones of heavy staining HCN = 1.2 ppm @ 22.5'		
24		24-26'	1207 ppm 2000+ ppm 1319 ppm	Mod-dk yellowish brown, med-coarse SAND w/f gravel, naphthalene-like odor, staining, sheen HCN = 0.4 ppm @ 24' and 23.0 ppm @ 25'		
26		26-28'	2000+ ppm 2000+ ppm 2000+ ppm	Mod yellowish br, coarse-v coarse SAND w/f-c gravel and f sand, micaceous, strong naphthalene-like odor, heavy NAPL staining, wet		
28		28-30'	2000+ ppm 2000+ ppm 593 ppm	Mod-dk brown and yellowish brown, silty fine SAND, micaceous, strong naphthalene-like odor, NAPL staining HCN = 0.4 ppm @ 28'		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-06D		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		30-32'	2000+ ppm	Dk yellowish br, f SAND, micaceous, naphthalene-like odor, heavy staining		
32-34'		32-34'	303 ppm 150 ppm	Moderate yellowish brown and dark yellowish orange, medium SAND, micaceous, wet		
34-36'		34-36'	54.3 ppm 15.7 ppm 70.6 ppm	Mod yellowish brown, med SAND, some v coarse sand, micaceous, sheen, wet		
36-38'		36-38'	545 ppm 26.4 ppm	Grayish orange, medium-coarse SAND, wet		
38-40'		38-40'	183 ppm 36.9 ppm	Mod yellowish brown-grayish orange, med-v coarse SAND w/some fine gravel, micaceous, trace silt, slight sheen, wet		
40-42'		40-42'	259 ppm 0.0 ppm	Grayish orange-yellowish orange, v coarse SAND-fine GRAVEL, little silt and clay, some mica, wet		
42-44'		42-44'	313 ppm 0.0 ppm	Grayish orange-yellowish orange, v coarse SAND-fine GRAVEL w/coarse gravel, wet		
44-46'		44-46'	31.3 ppm 0.0 ppm	Grayish orange, medium-coarse SAND w/fine gravel, very slight naphthalene-like odor, wet		
46-48'		46-48'	12.9 ppm 0.0 ppm	Grayish orange, coarse-very coarse SAND w/fine gravel, wet		
48-50'		48-50'	0.0 ppm	Grayish orange, coarse-very coarse SAND w/fine-coarse gravel, to medium-fine micaceous SAND w/trace coarse sand and silt		
50-52'		50-52'	40 ppm 0.0 ppm	Grayish orange, medium-coarse SAND, wet		
52-54'		52-54'	0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange-dk yellowish orange, medium-coarse SAND w/some f gravel, wet		
54-56'		54-56'	0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/very coarse sand-fine gravel, wet		
56-58'		56-58'	0.0 ppm 0.0 ppm	Grayish orange-dk yellowish orange, coarse-very coarse SAND w/fine gravel, wet		
58-60'		58-60'	31.7 ppm 17.4 ppm	Grayish orange-dk yellowish orange, medium-very coarse SAND w/fine gravel, some mica, wet		
60-62'		60-62'	0.7 ppm 0.0 ppm	Dark yellowish orange-moderate yellowish brown, medium-coarse SAND w/some fine gravel, wet		
62-64'		62-64'	0.0 ppm 0.0 ppm	Moderate yellowish brown-pale yellowish orange, medium-very coarse SAND w/fine-coarse gravel, slight sheen, iron oxide staining		
64-66'		64-66'	0.0 ppm 0.0 ppm	Yellowish gray-light gray-pale yellowish orange, fine-coarse SAND w/some mica		
66-68'		66-68'	0.0 ppm 0.0 ppm	Yellowish gray, medium SAND w/some mica		
68-70'		68-70'	0.0 ppm	Yellowish gray, medium-coarse SAND, thin lens of dark yellowish orange and dusky yellowish brown, sandy clay at 66.3'		
70-72'		70-72'	9.0 ppm 0.0 ppm	Yellowish gray-medium gray, medium SAND w/some fine gravel		
72-74'		72-74'		Dark yellowish orange, clayey medium SAND		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-06D		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'			0.0 ppm 0.9 ppm	Yellowish brown-yellowish orange-gray, clayey m-c SAND, micaceous		
72-74'			2.0 ppm 42.5 ppm 23.0 ppm	Pale yellowish orange, clayey medium-coarse SAND, wet		
74-76'			4.0 ppm 1.4 ppm	Lt-dk yellowish orange and brown, lt brown, sandy CLAY, micaceous, soft		
76-78'			6.2 ppm 0.0 ppm	Dark yellowish orange-grayish orange-yellowish gray, medium SAND, micaceous, wet		
78-80'			0.0 ppm 0.0 ppm	Dark yellowish orange-yellowish gray, medium SAND w/trace clay, micaceous, wet		
80-82'			0.0 ppm 0.0 ppm	Light-dark yellowish orange, lt brown and yellowish gray, medium SAND w/trace clay, micaceous		
82-84'			0.0 ppm 0.0 ppm	Light-dark yellowish orange, medium SAND w/trace silt, micaceous		
84-86'			0.0 ppm 0.0 ppm 0.0 ppm	Light-dark yellowish orange and dark gray, CLAY, soft, micaceous		
86-88'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/some mica, wet		
88-90'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange-grayish pink orange, silty CLAY, soft, micaceous		
90-92'			0.0 ppm 0.0 ppm 0.0 ppm	Medium-dark gray and yellowish gray, clayey fine SAND, micaceous		
92-94'			0.0 ppm 0.0 ppm 0.0 ppm	Med gray, yellowish gray and dk yellowish orange, sandy CLAY, micaceous		
94-96'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND w/some mica, wet		
96-98'			0.0 ppm 0.0 ppm 0.0 ppm	Med-dk gray and dk yellowish-grayish orange, sandy CLAY, soft, micaceous		
98-100'			0.0 ppm 0.0 ppm	Dark yellowish orange-light brown, clayey medium SAND, micaceous		
100-102'			0.0 ppm 0.0 ppm 0.0 ppm	No recovery (92-94')		
102-104'			16.0 ppm 19.8 ppm 4.1 ppm	Lt-dk yellowish orange, medium gray and moderate brown, clayey fine-medium SAND, micaceous		
104-106'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange-medium gray, sandy CLAY, micaceous		
106-108'			0.0 ppm 0.0 ppm	Lt brown-yellowish gray-medium gray, clayey fine-medium SAND, micaceous		
108-110'			0.0 ppm 0.0 ppm	Light brown-yellowish gray-dark yellowish orange, clayey fine-medium SAND, micaceous		
110-112'			0.0 ppm 0.0 ppm 0.0 ppm	Yellowish gray-dk yellowish orange-mod brown, clayey med SAND, micaceous		
112-114'			0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish orange-grayish orange, medium SAND w/little clay, micaceous		
114-116'			0.0 ppm 0.0 ppm	Grayish orange, moderate brown, light-medium gray and dark yellowish orange, clayey medium SAND, micaceous		
116-118'			0.0 ppm 0.0 ppm 3.5 ppm	Grayish orange and medium-dark gray, clayey medium SAND, micaceous		
118-120'			0.0 ppm 0.0 ppm	Light-dark yellowish orange, medium SAND w/trace clay, micaceous, wet		
120-122'			0.0 ppm 0.0 ppm	Yellowish gray-dark yellowish orange-dark yellowish brown, medium SAND w/trace clay, micaceous		
122-124'			0.0 ppm 0.0 ppm	Dark yellowish orange-grayish orange-light brown, clayey medium SAND, micaceous		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-06D		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112'	0.0 ppm 0.0 ppm	Grayish orange-medium gray, clayey medium SAND, micaceous		
		112-114'	0.0 ppm 0.0 ppm	Dark yellow orange-yellow gray, med SAND w/trace silt, micaceous, wet Same as above, no silt		
114		114-116'	0.0 ppm 0.0 ppm	Grayish orange-moderate gray-moderate brown, medium SAND, micaceous, wet		
		116-118'	0.0 ppm 0.0 ppm	Ok yellowish orange-lt brown, f-c SAND w/some clay and thin clay lenses Medium gray-moderate yellowish brown, soft CLAY, micaceous		
		118-120'	0.0 ppm 0.0 ppm	Yellow orange-yellow brown, soft CLAY w/fine-coarse sand to silty CLAY		
120		120-122'	0.0 ppm 0.0 ppm	Medium gray, silty fine SAND w/dark gray clay to CLAY, soft		
		122-124'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, soft-medium stiff, thinly interbedded w/medium gray, silty SAND, micaceous		
		124-126'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, soft-medium stiff		
126		126-128'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, soft-medium stiff		
		128-130'	0.0 ppm 0.0 ppm	Same as above, dry		
130		130-132.5'	0.0 ppm 0.0 ppm	Dark gray, CLAY, micaceous, medium stiff, dry		
		132.5'	0.0 ppm	Dark gray, CLAY, micaceous, medium stiff, dense, dry (Shelby tube)		
				Base of boring - 132.5 ft.		



Site Id: HIMW-07D

Date(s): 10/02/00 - 10/03/00

Datum: Mean Sea Level

Elevation: 70.75'

Measuring Point: 70.40'

Completed Depth: 117.00'

Total Depth: 132.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schafer

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 29.00' to: 39.00'
type: Slotted size: 0.010in dia: 2.00in fm: 78.00' to: 88.00'
type: Slotted size: 0.010in dia: 2.00in fm: 105.00' to: 115.00'

Remarks: Includes well screens for monitoring wells:
HIMW-07S, HIMW-07I and HIMW-07D
Logged from boring HISB-34.

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-2'				Concrete		
2-4'		14 ppm 42 ppm		Tan, fine-coarse SAND w/some fine gravel		
4-6'		64 ppm 44 ppm		Tan-brown, fine-coarse SAND w/some fine gravel		
6-8'		8.1 ppm 5.2 ppm		Same as above		
8-10'		5.4 ppm 27.9 ppm		Same as above		
10-12'		12 ppm 25 ppm		Same as above		
12-14'		55 ppm 31 ppm 39 ppm		Tan-brown, fine-coarse SAND w/some black gravel, slight hydrocarbon-like odor		
14-16'		25 ppm 20 ppm		Brown, fine-coarse SAND w/fine gravel		
16-18'		0.0 ppm 0.0 ppm		Brown, fine-coarse SAND w/fine gravel, hydrocarbon-like odor, possible black stained gravel		
18-20'		295 ppm 224 ppm 218 ppm		Brown, fine-coarse SAND w/fine gravel, hydrocarbon-like odor, some brown-black staining, moist		
20-22'		223 ppm 157 ppm		Brown-black, fine-coarse SAND w/some fine gravel, trace coarse gravel, hydrocarbon-like odor, intermittent black staining, moist		
22-24'		229 ppm 368 ppm		Black, fine-coarse SAND w/trace fine gravel, hydrocarbon-like odor, stained, moist		
24-26'		210 ppm 319 ppm 447 ppm		Same as above		
26-28'		201 ppm 189 ppm		Black, fine-medium SAND w/trace fine gravel, hydrocarbon-like odor, stained, moist		
28-30'		230 ppm 364 ppm		Blk, fine-medium SAND w/trace c gravel, hydrocarbon-like odor, stained, moist Brown, v fine-fine SAND, med dense, NAPL, hydrocarbon-like odor, moist-wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-07D		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		30-32'	372 ppm	Br, v fine-fine SAND, NAPL, stained, hydrocarbon-like odor, med dense, wet		
32-34'		32-34'	289 ppm 134 ppm 101 ppm	Gray-brown, sandy SILT w/fine-med sand, hydrocarbon-like odor, intermittent staining, slightly stiff, slightly plastic		
34-36'		34-36'	90 ppm 350 ppm 56 ppm	Brown, fine SAND, to gray, fine-coarse sandy GRAVEL (at 35.75'), medium dense to loose, naphthalene-like odor, slight staining, sheen, wet		
36-38'		36-38'	5.0 ppm	Gray-brown, fine sandy GRAVEL w/some coarse gravel, dense, slight naphthalene-like odor, wet		
38-40'		38-40'	3.4 ppm 0.0 ppm	Orange-brown, fine-medium SAND w/trace coarse sand and fine gravel, medium dense, wet		
40-42'		40-42'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/trace fine gravel, medium dense, wet		
42-44'		42-44'	0.0 ppm 0.0 ppm	Orange-brown, fine-medium SAND w/trace coarse sand, fine gravel, medium dense, wet		
44-46'		44-46'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
46-48'		46-48'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, gravelly fine-coarse SAND w/fine gravel, medium loose, wet		
48-50'		48-50'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
50-52'		50-52'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, medium dense, wet		
52-54'		52-54'	0.0 ppm 0.0 ppm	Light brown, fine-coarse SAND w/some fine gravel, loose, wet		
54-56'		54-56'	0.0 ppm 0.0 ppm	Same as above		
56-58'		56-58'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light brown, fine-coarse SAND w/some fine gravel, loose, wet		
58-60'		58-60'	0.0 ppm 0.0 ppm	Lt brown-orange brown, fine-coarse SAND w/some fine gravel, wet		
60-62'		60-62'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Lt brown-orange brown, fine-coarse SAND w/fine gravel and some coarse gravel, wet		
62-64'		62-64'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, gravelly fine-coarse SAND w/fine gravel, wet		
64-66'		64-66'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND, medium dense, wet		
66-68'		66-68'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, SILT, very stiff, non-plastic, moist		
68-70'		68-70'	0.0 ppm 0.0 ppm	Light orange-brown, gravelly fine SAND, loose-medium dense, wet		
70-72'		70-72'	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, fine SAND, wet, loose		
72-74'		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Tan-gray, fine-medium SAND w/tan silt lens at 69', wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-070		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'	0.0 ppm	Brown, fine-medium SAND w/orange-brown clay lens at 70.5', wet		
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Tan-gray, fine SAND, wet		
		74-76'	0.0 ppm 0.0 ppm 0.0 ppm	Tan-gray, very fine-fine SAND, clay lens at 74.75', wet		
		76-78'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Tan-gray to orange-brown, very fine-fine SAND w/orange-brown clay lens at 76', medium dense, wet		
		78-80'	0.0 ppm 0.0 ppm 0.0 ppm	Tan-gray, silty very fine-fine SAND w/orange-brown clay lens at 78.75', dense-medium dense, wet		
		80-82'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, silty very fine SAND, medium dense, dark brown-gray banding, wet		
		82-84'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		84-86'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		86-88'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		88-90'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		90-92'	0.0 ppm 0.0 ppm 0.0 ppm	Orange brown, clayey SILT, soft, plastic, black banding, moist		
		92-94'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty very fine-fine SAND		
		94-96'	0.0 ppm 0.0 ppm 0.0 ppm	Brown to orange-brown, silty SAND w/some clay, dense-medium dense, wet		
		96-98'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		98-100'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty very fine-fine SAND w/black-gray banding, medium dense, wet		
		100-102'	0.0 ppm 0.0 ppm 0.0 ppm	Brown-gray, very fine-fine SAND w/interbedded black-brown silty clay, dense-medium dense, wet		
		102-104'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		104-106'	0.0 ppm 0.0 ppm	Same as above		
		106-108'	0.0 ppm 0.0 ppm 0.0 ppm	Brown, silty very fine-fine SAND w/trace clay, medium dense, black-gray banding, wet		
		108-110'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-070		
Location: Hempstead				Date(s): 10/02/00 - 10/03/00		
Purpose: Monitoring Well, Deep				Total Depth: 132.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112	0.0 ppm 0.0 ppm 0.0 ppm	Br, silty v fine-fine SAND w/trace clay, med dense, black-gray banding, wet		
112		112-114	0.0 ppm 0.0 ppm	Brown-orange brown, very fine-fine SAND w/some silt, trace clay, gray-black banding, medium dense, wet		
114		114-116	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
116		116-118	0.0 ppm 0.0 ppm 0.0 ppm	Orange brown-black, sandy CLAY, soft, plastic, gray sand lenses, moist		
118		118-120	0.0 ppm 0.0 ppm	Dk brown, CLAY w/gray sand lenses, semi-soft, non-plastic, almost dry		
120		120-122	0.0 ppm 0.0 ppm 0.0 ppm	Dk brown, CLAY, brittle, slightly plastic, very thin gray fine sand lenses, almost dry		
128		128-130	0.0 ppm 0.0 ppm 0.0 ppm	Gray, fine sandy CLAY, soft, plastic, moist		
130		130-132	0.0 ppm 0.0 ppm 0.0 ppm	Black-gray, sandy CLAY, soft, slightly plastic, moist		
				Base of boring - 132 ft.		
135						
140						
145						



Site Id: HIMW-08D

Date(s): 11/10/00 - 11/13/00

Datum: Mean Sea Level

Elevation: 65.34'

Measuring Point: 64.93'

Completed Depth: 114.00'

Total Depth: 152.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 25.00' to: 35.00'
type: Slotted size: 0.010in dia: 2.00in fm: 63.00' to: 73.00'
type: Slotted size: 0.010in dia: 2.00in fm: 102.00' to: 112.00'

Remarks: Includes well screens for monitoring wells:
HIMW-08S, HIMW-08I and HIMW-08D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
5		5-7'	0.0 ppm	Moderate brown, silty fine SAND w/very coarse sand-fine gravel		
7		7-9'	0.0 ppm	Grayish black, fine SAND w/very coarse sand-fine gravel		
11		10-12'	0.0 ppm 2.1 ppm	Dark yellowish orange, coarse SAND w/fine gravel and little mica		
12		12-14'	1.8 ppm	Dusky yellowish brown-dk yellowish orange, silty fine SAND w/some very coarse sand and fine gravel		
14		14-16'	1.8 ppm	Dark yellowish orange, fine-medium SAND w/fine gravel, some silt and mica		
16		16-18'	1.60 ppm	Dark yellowish orange, medium-coarse SAND w/very coarse sand-fine gravel		
18		18-20'	1.70 ppm	Dark yellowish brown, medium-coarse SAND w/some silt and fine gravel		
20		20-22'	3.0 ppm	Grayish orange, medium-very coarse SAND w/fine gravel		
22		22-24'	0.0 ppm	Moderate brown, medium SAND w/coarse-very coarse sand, some silt		
24		24-26'	0.0 ppm	Mod yellowish brown-grayish orange, med SAND w/some coarse-v coarse sand		
26		26-28'	0.0 ppm	Grayish orange-moderate yellowish brown, clayey fine-medium SAND w/some silt, trace very coarse sand		
28		28-30'	0.0 ppm	Grayish orange, silty fine-medium SAND w/little clay and some mica, wet		
30		30-32'	0.0 ppm	Moderate yellow brown, silty fine SAND w/some clay, micaceous, wet		
32		32-34'	0.0 ppm	Yellow orange, coarse SAND w/thin bed of yellow brown sandy clay, wet		



24'

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-08D		
Location: Hempstead				Date(s): 11/10/00 - 11/13/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	0.5 ppm	Moderate yellowish brown, medium-coarse SAND w/some mica, trace very		
		32-34'	0.4 ppm	coarse gravel, thinly bedded yellow brown sandy clay, wet		
		34-36'	12.2 ppm	Mod yellow brown-yellow orange, med-v coarse SAND w/some f gravel, wet		
		36-38'	27.3 ppm 22.6 ppm	Moderate yellowish brown, coarse SAND w/fine gravel, naphthalene-like odor, wet		
		38-40'	0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/very coarse sand and f gravel, some mica, naphthalene-like odor, slight sheen		
		40-42'	0.0 ppm 1.2 ppm	Dark yellowish brown, medium-very coarse SAND w/fine gravel, wet		
		42-44'	9.7 ppm 2.7 ppm	Dark yellowish brown, coarse SAND w/very coarse sand and fine gravel, very slight naphthalene-like odor, wet		
		44-46'	30 ppm	Dk yellowish brown-dk yellowish orange, medium-coarse SAND w/very coarse sand and f gravel, some mica, slight naphthalene-like odor, wet		
		46-48'	52.7 ppm	Dark yellowish orange, medium-coarse SAND w/very coarse sand and fine gravel, slight naphthalene-like odor, wet		
		48-50'	1.7 ppm 30.4 ppm	Dk yellowish orange, med-coarse SAND w/some f gravel, clay and silt, wet		
		50-52'	33.1 ppm 31.8 ppm	Moderate brown, medium-coarse SAND w/very coarse sand, wet		
		52-54'	0.0 ppm 0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/very coarse sand and some fine gravel, slight naphthalene-like odor, wet		
		54-56'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown-moderate brown-dark yellowish orange, medium-coarse SAND w/fine-coarse gravel, some mica, wet		
		56-58'	0.0 ppm 0.0 ppm	Dark yellowish orange-moderate yellowish brown, med-coarse SAND w/very coarse sand-fine gravel, wet		
		58-60'	0.0 ppm 0.0 ppm 0.2 ppm	Mod yellowish brown, coarse SAND w/very coarse sand-fine gravel, wet		
		60-62'	0.0 ppm 0.0 ppm 0.0 ppm	Fine-coarse GRAVEL w/coarse-v coarse sand, wet, to med SAND w/f gravel		
		62-64'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, medium SAND w/some mica, trace very coarse sand, wet		
		64-66'	0.0 ppm 0.0 ppm 0.2 ppm	Moderate yellowish brown, fine-medium SAND w/trace silt, micaceous, wet		
		66-68'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-very coarse SAND, w/fine gravel, wet		
		68-70'	0.0 ppm 0.0 ppm 0.0 ppm	Yellowish gray, CLAY w/fine-coarse sand and gravel, very soft, wet		
		70-72'	0.0 ppm 0.0 ppm 0.2 ppm	Yellowish gray, sandy CLAY w/fine gravel, soft, wet		
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Light gray, fine SAND w/some mica, trace silt, wet		
		74-76'	0.0 ppm 0.0 ppm 0.0 ppm	Light and yellowish gray, fine SAND w/some mica, trace silt and clay, wet		
		76-78'	0.0 ppm 0.0 ppm 0.0 ppm	Light gray, fine-medium SAND w/some silt and mica, banding of pale yellowish orange-dark gray sand, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-08D		
Location: Hempstead				Date(s): 11/10/00 - 11/13/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'		No recovery		
		72-74'	0.0 ppm	Light gray-yellowish gray and dark yellowish orange, fine-medium SAND, wet		
		74-76'	0.0 ppm	Dark yellowish orange, clayey medium-coarse SAND		
		76-78'	0.0 ppm	Pale yellowish brown, CLAY, soft		
		78-80'	0.0 ppm	Dark yellowish orange, sandy CLAY, soft		
		80-82'	0.0 ppm	Grayish orange, CLAY, micaceous, medium stiff		
		82-84'	0.0 ppm	Dark yellowish brown, sandy CLAY, soft		
		84-86'	0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/some mica		
		86-88'	0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/trace of very coarse sand and silt, wet		
		88-90'	0.0 ppm	Grayish orange, CLAY, soft, plastic, to yellowish brown, clayey med SAND		
		90-92'	0.0 ppm	Dark yellowish orange, medium SAND, wet		
		92-94'	0.0 ppm	Dark yellowish orange, medium SAND w/some mica, trace silt, wet		
		94-96'	0.0 ppm	Grayish orange, CLAY, very soft		
		96-98'	0.0 ppm	Moderate yellowish brown and pale yellowish brown, sandy CLAY		
		98-100'	0.0 ppm	Moderate yellowish brown, medium SAND w/some fine gravel, wet		
		100-102'	0.0 ppm	Yellow br and yellow gr, f-m SAND w/some mica, thinly bedded clay, wet		
		102-104'	0.0 ppm	Moderate yellowish brown and pale yellowish brown, medium SAND w/some mica, trace silt, thinly bedded clay, wet		
		104-106'	0.0 ppm	Moderate-dark yellowish brown, sandy CLAY, soft		
		106-108'	0.0 ppm	Dk yellowish orange, fine SAND w/striations of lt gray sand, micaceous		
		108-110'	0.0 ppm	Moderate yellowish brown, fine-medium SAND w/some mica, trace silt, thin striations of lt gray sand, wet		
		110-112'	0.0 ppm	Dark yellowish orange, medium SAND, trace silt, micaceous, thinly bedded clay and sandy clay, wet		
		112-114'	0.0 ppm	Moderate yellowish brown, dark yellowish orange and lt gray, med SAND w/some mica, trace silt, striated, wet		
		114-116'	0.0 ppm	Dark yellowish orange, grayish yellow and light gray, med SAND w/some mica, trace silt, striated, wet		
		116-118'	0.0 ppm	Light gray and dark yellowish orange, fine-medium SAND w/some mica, trace silt, wet		
		118-120'	0.0 ppm	Light gray, yellowish gray and dark yellowish orange, medium SAND w/some mica, trace silt, striated, wet		
		120-122'	0.0 ppm	Dark yellowish orange and moderate yellowish brown, medium-coarse SAND w/some mica, wet		
		122-124'	0.0 ppm	Moderate yellowish brown and dark yellowish orange, coarse SAND w/some mica, wet		
		124-126'	1.4 ppm			

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-08D		
Location: Hempstead				Date(s): 11/10/00 - 11/13/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		110-112'	0.1 ppm 0.8 ppm 0.9 ppm 0.0 ppm 0.6 ppm	Mod yellowish br, med SAND w/some mica, trace and pockets of clay, wet		
		112-114'	0.0 ppm 0.7 ppm 0.8 ppm 0.7 ppm	Mod yellowish brown, medium-coarse SAND w/some mica, trace clay, wet		
		114-116'	0.2 ppm 0.2 ppm 0.5 ppm	Lt yellowish brown, CLAY, trace silt, medium stiff, to silty fine SAND		
115				Dark yellowish orange and dark gray, silty CLAY, soft		
				Dark gray, CLAY, micaceous, med stiff, thinly bedded silty fine sand		
		116-118'	0.0 ppm 0.9 ppm 0.8 ppm 1.3 ppm	Pale yellowish orange, CLAY, micaceous, soft		
				Dk gray-pale yellow orange, silty CLAY, micaceous, med stiff-soft, dry		
		118-120'	0.2 ppm 0.3 ppm 0.0 ppm 0.0 ppm	Pale yellowish orange, CLAY, micaceous, soft		
				Gray-yellow orange-gr orange, sandy CLAY w/some silt, micaceous, soft		
120		120-122'	0.0 ppm 0.0 ppm 0.2 ppm	Dark gray, silty CLAY, micaceous, soft-medium stiff, dry		
				Medium gray, clayey fine SAND, micaceous		
		122-124'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, medium stiff, dry		
				Medium gray, fine SAND w/some clay, micaceous		
		124-126'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY w/some fine sand, micaceous, soft, plastic		
125				Dk gray, silty CLAY, micaceous, interbedded with med gray, fine sand		
		126-128'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY, micaceous, soft, interbedded with medium gray, fine micaceous sand		
		128-130'	0.0 ppm 0.0 ppm	Dark gray and pale yellowish orange, silty CLAY, micaceous, medium stiff-soft		
130		130-132'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY, micaceous, med stiff-soft, interbedded w/fine sand		
				Med gray, silty fine SAND w/thinly bedded dark gray clay, micaceous		
		132-134'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY w/little silt, micaceous, medium stiff		
		134-136'	0.0 ppm 0.0 ppm	Medium gray, silty fine SAND, micaceous, interbedded with dark gray, micaceous silty clay		
135		136-138'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY, trace silt, micaceous, medium stiff		
				Med gray, silty fine SAND w/thinly bedded dark gray clay, micaceous		
		138-140'	0.0 ppm 0.0 ppm 0.0 ppm	Dk gray, CLAY w/micaceous silty f sand, trace silt, micaceous, soft		
				Med gray, silty fine SAND w/thinly bedded dark gray clay, micaceous		
140		140-142'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, medium stiff, interbedded with medium gray, micaceous silty fine sand		
		142-144'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, medium stiff		
145				Medium gray, silty fine SAND w/thinly bedded dark gray clay, micaceous		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-08D	
Location: Hempstead				Date(s): 11/10/00 - 11/13/00	
Purpose: Monitoring Well, Deep				Total Depth: 152.00'	

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
<div style="text-align: center;">  </div> <div style="text-align: center;"> 150 152 </div> <div style="text-align: center;"> 0.0 ppm 0.0 ppm </div> <div style="text-align: center;"> Dark gray, CLAY w/silty fine sand, trace silt, micaceous, med stiff Base of boring - 152 ft. </div> <div style="text-align: center;">  </div>						
150						
145						
140						
135						
130						
125						
120						
115						
110						
105						
100						
95						
90						
85						
80						
75						
70						
65						
60						
55						
50						
45						
40						
35						
30						
25						
20						
15						
10						
5						
0						



Site Id: HIMW-09D

Date(s): 10/31/00 - 11/01/00

Datum: Mean Sea Level

Elevation: 70.39'

Measuring Point: 69.96'

Completed Depth: 125.00'

Total Depth: 152.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hand Auger 0-5', Hol. Stem Auger 5-152'

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 28.00' to: 38.00'
type: Slotted size: 0.020in dia: 2.00in fm: 70.00' to: 80.00'
type: Slotted size: 0.010in dia: 2.00in fm: 113.00' to: 123.00'

Remarks: Includes well screens for monitoring wells: HIMW-09S, HIMW-09I and HIMW-09D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-5'				Concrete		
5-7'			0.0 ppm 0.3 ppm 0.0 ppm	Grayish black, silty fine SAND, to moderate brown, CLAY w/some silt, soft Moderate brown, coarse-very coarse SAND w/fine gravel Dark yellowish brown, coarse SAND w/fine gravel Dark yellowish orange-light brown, medium-coarse SAND w/some fine gravel, trace silt		
10-12'			0.0 ppm 0.0 ppm	Dark yellowish orange and light brown, coarse-very coarse SAND w/fine gravel		
15-17'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange and light brown, medium SAND w/little fine gravel Very pale orange and dark yellowish orange, medium-coarse SAND w/little fine gravel		
20-22'			0.0 ppm 0.0 ppm	Dark-pale yellowish orange and very pale orange, medium-coarse SAND w/fine-coarse gravel, trace v coarse sand, some mica		
18-19'			0.0 ppm 0.0 ppm	Very pale orange, medium SAND w/fine-coarse gravel		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-09D		
Location: Hempstead				Date(s): 10/31/00 - 11/01/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		0.0 ppm 0.0 ppm		Grayish orange, fine-medium SAND w/some very coarse sand-fine gravel Dk yellow brown, clayey coarse-very coarse SAND w/fine-coarse gravel, to dark yellow orange, coarse-v coarse SAND w/fine gravel		
35-37'		0.0 ppm 0.0 ppm 0.0 ppm		Dk yellow orange-mod yellow brown, coarse-v coarse SAND w/f gravel, wet Fine-coarse GRAVEL w/grayish orange, coarse-very coarse sand, some mica		
40-42'		0.0 ppm 0.0 ppm		Grayish orange and moderate yellowish brown, medium-coarse SAND w/some fine gravel, wet		
42-44'		0.0 ppm 0.0 ppm		Dark yellowish orange, coarse-very coarse SAND w/some fine gravel, trace mica, wet		
44-46'		0.0 ppm 0.0 ppm 0.0 ppm		Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
46-48'		0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish orange, medium-coarse SAND w/very coarse sand and fine gravel, wet		
48-50'		0.0 ppm 123 ppm 52.3 ppm		Grayish orange, coarse-very coarse SAND w/fine gravel, a thin bed of moderate yellowish brown, clayey fine-coarse sand, wet		
50-52'		0.0 ppm 0.0 ppm 9.8 ppm 7.8 ppm		Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet Mod yellowish brown, med-coarse SAND w/some silt, trace f gravel and mica		
52-54'		23.0 ppm 693 ppm 965 ppm		Grayish orange, medium-coarse SAND w/very coarse sand-fine gravel		
54-56'		671 ppm 572 ppm 735 ppm		Grayish orange, medium SAND w/some mica, wet Grayish orange, coarse SAND w/very coarse sand and fine gravel, wet		
56-58'		121 ppm 725 ppm 708 ppm 245 ppm		Grayish orange-moderate yellowish brown, medium-coarse SAND w/very coarse sand and fine gravel		
58-60'		219 ppm 232 ppm 305 ppm 244 ppm		Moderate yellowish brown, medium-coarse SAND w/very coarse sand and fine gravel, wet		
60-62'		0.0 ppm		Moderate yellowish brown, coarse SAND w/fine and coarse gravel		
62-64'		0.0 ppm 5.5 ppm 7.1 ppm		Grayish orange-mod yellowish br, coarse-v coarse SAND w/f-c gravel, wet Moderate yellowish brown, medium-coarse SAND w/some fine gravel, wet		
64-66'		0.0 ppm 0.0 ppm 0.0 ppm		Grayish orange, coarse-very coarse SAND w/fine gravel, wet Moderate yellowish brown, medium-very coarse SAND, trace mica and silt		
66-68'		0.0 ppm 0.0 ppm		Moderate yellowish brown, coarse SAND w/some very coarse SAND		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-09D		
Location: Hempstead				Date(s): 10/31/00 - 11/01/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'	0.0 ppm	Pale-moderate yellowish brown, med-coarse SAND w/little fine gravel, wet		
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Pale yellowish brown-dark yellowish orange, medium-coarse SAND w/some fine gravel, wet		
		74-76'	0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND w/some coarse gravel, wet		
		76-78'	0.0 ppm 0.0 ppm	Yellowish gray and medium-light gray, fine-medium SAND w/v thinly bedded medium-dark gray, clayey sand, some mica, trace silt		
		78-80'	0.0 ppm	Lt gray and yellowish orange, fine-med SAND w/some mica, trace silt, wet		
		80-82'	0.0 ppm 0.0 ppm	Grayish yellow-yellowish gray, fine-medium SAND, wet		
		82-84'	0.0 ppm 0.0 ppm	Light gray and yellowish gray, fine SAND w/very thinly bedded brownish gray clay, some silt, clay and mica		
		84-86'	0.0 ppm 0.0 ppm	Lt gray and grayish orange-yellowish orange, fine-coarse SAND w/some clay and mica, interbedded w/yellow br-yellow orange, clay, soft		
		86-88'	0.0 ppm 0.0 ppm	Mod yellowish brown and lt-dk yellowish orange, medium SAND w/thinly bedded very pale orange clay, some mica		
		88-90'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND w/thinly bedded clay, some mica, wet		
		90-92'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND w/thinly bedded medium gray, clayey sand, little silt, some mica		
		92-94'	0.0 ppm 0.0 ppm	Dk yellowish orange and yellowish brown, med-coarse SAND w/some mica, a thin bed of dk yellowish orange and pale reddish brown, clay		
		94-96'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish orange, mod yellowish brown and lt gray, med SAND w/thinly bedded mod yellowish brown clay, some silt, micaceous, wet		
		96-98'	0.0 ppm 0.0 ppm	Dark yellowish orange and mod yellowish brown, medium micaceous SAND w/thinly bedded dark gray, micaceous clayey sand		
		98-100'	0.0 ppm 0.0 ppm	Medium-dark gray, yellowish gray and grayish orange, medium SAND, trace silt, micaceous, wet		
		100-102'	0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND w/thinly bedded moderate brown, sandy clay, some clay, micaceous		
		102-104'	0.0 ppm 0.0 ppm	Dark yellowish orange and light brown, coarse SAND w/pockets of dark gray, micaceous silty fine sand, micaceous, dense, wet		
		104-106'	0.0 ppm 0.0 ppm	Moderate brown, dark yellowish orange and grayish orange, coarse SAND w/clay and mica, thinly bedded clayey coarse sand, wet		
		106-108'	0.0 ppm 0.0 ppm	Dark yellowish orange, sandy CLAY, soft		
		108-110'	0.0 ppm 0.0 ppm	Mod reddish orange and yellow br-orange, clayey med SAND, micaceous, wet		
		110-112'	0.0 ppm 0.0 ppm	Moderate yellowish brown, medium SAND w/thinly bedded clayey sand, trace silt, micaceous		

upper
Magothy

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-09D		
Location: Hempstead				Date(s): 10/31/00 - 11/01/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110-112'		0.0 ppm	0.0 ppm	Yellow br-gr orange, m SAND w/lenses of sandy clay, trace silt, micaceous		
112-114'		0.0 ppm	65.9 ppm	Moderate-pale yellowish brown and dark yellowish orange, medium SAND w/some mica, little silt, wet		
114-116'		0.0 ppm	0.0 ppm	Moderate yellowish brown, fine-medium SAND w/some mica, trace silt, wet		
116-118'		0.0 ppm	250 ppm	Moderate yellowish brown, yellowish gray and dark yellowish orange, fine-medium SAND w/some mica, wet		
118-120'		155 ppm	54.8 ppm	Grayish orange and dark yellowish orange-moderate yellowish brown, medium SAND w/some mica, trace silt, wet		
120-122'		0.0 ppm	0.0 ppm	Grayish orange, medium SAND w/some mica, wet		
122-124'		383 ppm	350 ppm	Moderate yellowish brown, coarse SAND w/some v coarse sand and mica, wet		
124-126'		131 ppm	123 ppm	Yellow orange-yellow br-gray, silty CLAY w/f sand beds, micaceous, soft		
126-128'		212 ppm	117 ppm	Dark gray, silty CLAY w/medium-light gray, fine sand partings, micaceous, medium stiff		
128-130'		0.0 ppm	0.0 ppm	Dark gray, silty CLAY w/thin beds of medium gray, micaceous medium sand, micaceous, stiff		
130-132'		0.0 ppm	0.0 ppm	Dark gray, CLAY w/medium sand and thinly bedded medium gray, medium sand, micaceous, moderately soft		
132-134'		0.1 ppm	0.0 ppm	Medium gray, medium SAND, micaceous, interbedded with dark gray clay, moderately soft, micaceous, wet		
134-136'		0.0 ppm	0.4 ppm	Medium gray, fine-medium SAND w/thinly bedded dark gray clay and lignite, micaceous		
136-138'		0.3 ppm	1.2 ppm	Medium gray, fine-medium SAND, micaceous, interbedded with lignite		
138-140'		0.0 ppm	0.0 ppm	Medium gray, fine-medium SAND w/trace silt, micaceous, interbedded with dark gray, micaceous silty clay, wet		
140-142'		0.0 ppm	0.0 ppm	Medium gray, clayey fine SAND, micaceous, interbedded with dark gray, micaceous silty clay		
142-144'		0.0 ppm	0.0 ppm	Medium-dark gray, clayey fine SAND, micaceous, interbedded with dk gray, micaceous clay, medium stiff		
144-146'		0.0 ppm	0.0 ppm	Dark gray, CLAY, micaceous, soft-medium stiff, interbedded with medium gray, micaceous fine sand w/lignite		
146-148'		0.0 ppm	0.0 ppm	Medium-dark gray, clayey coarse SAND, micaceous, interbedded with some dark gray, micaceous clay, medium stiff		
148-150'		0.0 ppm	0.0 ppm	Dark gray-brownish gray, CLAY, micaceous, soft-stiff		
150-152'		0.0 ppm	0.0 ppm	Brownish gray, CLAY w/some silt, micaceous, stiff		

116
Lower

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-09D		
Location: Hempstead				Date(s): 10/31/00 - 11/01/00		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		150-152	0.0 ppm 0.0 ppm	Grayish brown, CLAY w/some mica, little silt, stiff Base of boring - 152 ft.		



Site Id: HIMW-10D

Date(s): 09/19/00 - 09/20/00

Datum: Mean Sea Level

Elevation: 71.74'

Measuring Point: 71.44'

Completed Depth: 134.50'

Total Depth: 139.00'

Screens:

type: Slotted size: 0.010in dia: 2.00in fm: 28.00' to: 38.00'

type: Slotted size: 0.010in dia: 2.00in fm: 80.50' to: 90.50'

type: Slotted size: 0.010in dia: 2.00in fm: 122.50' to: 132.50'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hand Auger 0-5', Hol. Stem Auger 5-139'

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Remarks: Includes well screens for monitoring wells:
HIMW-10S, HIMW-10I and HIMW-10D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-5'				TOPSOIL, grass Dark yellowish brown, fine sandy SILT w/fine-coarse gravel, some mica		
5-7'			1.5 ppm 2.4 ppm	Grayish orange, medium-coarse SAND w/very coarse sand-fine gravel, little mica		
10-12'			0.0 ppm 0.0 ppm	Dark yellowish orange and light brown, coarse-very coarse SAND w/fine gravel		
12-14'			7.6 ppm 7.6 ppm	Yellowish gray, coarse-very coarse SAND w/fine gravel Grayish orange-moderate yellowish brown, medium-v coarse SAND, some mica		
14-16'			1.7 ppm 1.0 ppm	Moderate yellowish brown-dark yellowish orange, medium-very coarse SAND w/fine gravel, little coarse gravel		
16-18'			0.0 ppm 1.5 ppm 1.3 ppm	Dark yellowish orange-moderate yellowish brown, medium-coarse SAND w/v coarse sand-coarse gravel		
18-20'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-very coarse SAND w/some fine gravel		
20-22'			0.0 ppm 0.0 ppm	Moderate yellowish brown-dark yellowish orange, coarse-very coarse SAND w/fine gravel		
22-24'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/fine gravel, little mica		
24-26'			0.0 ppm 0.0 ppm	Dark yellowish orange-moderate yellow brown, medium-very coarse SAND w/fine gravel, iron oxide staining		
26-28'			62.5 ppm 34.6 ppm 4.3 ppm	Dark yellowish orange-grayish orange, medium-very coarse SAND w/fine gravel, slight hydrocarbon-like odor		
28-30'			25.8 ppm 140.3 ppm 116.4 ppm	Grayish orange-dark yellowish orange, med-v coarse SAND w/fine gravel, petroleum/hydrocarbon-like odor, slight sheen and staining		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-10D		
Location: Hempstead				Date(s): 09/19/00 - 09/20/00		
Purpose: Monitoring Well, Deep				Total Depth: 139.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	139.6 ppm 109.1 ppm	Br-yellow br, m-c SAND w/f-c gravel, hydrocarbon-like odor, sheen, wet		
		32-34'	4.0 ppm 37.3 ppm	Mod yellow brown and lt brown, med-v coarse SAND w/fine-coarse gravel, some clay, petroleum/hydrocarbon-like odor, slight sheen, wet		
		34-36'	2.0 ppm 1.4 ppm 2.8 ppm	Moderate yellowish brown, fine-very coarse SAND w/fine-coarse gravel, some clay, wet		
		36-38'	0.0 ppm 0.0 ppm	Dark yellowish orange-light brown, medium-very coarse SAND w/fine-coarse gravel, wet		
		38-40'	0.0 ppm 0.0 ppm	Light brown, coarse-very coarse SAND w/fine gravel, wet		
		40-42'	2.1 ppm 0.4 ppm 0.0 ppm	Light brown, medium-very coarse SAND w/fine and coarse gravel, wet		
		42-44'	0.0 ppm 0.0 ppm 0.0 ppm	Light brown, coarse-very coarse SAND w/fine gravel, wet		
		44-46'	0.0 ppm 0.0 ppm 0.0 ppm	Light brown, medium-coarse SAND w/some fine gravel, trace silt, wet		
		46-48'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-v coarse SAND w/some f gravel, wet		
		48-50'	5.2 ppm 4.0 ppm 0.9 ppm 0.3 ppm 3.1 ppm	Dark yellowish orange, medium SAND w/trace fine gravel, some mica		
		50-52'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/little fine gravel, wet		
		52-54'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, coarse SAND w/fine gravel, wet		
		54-56'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/some fine gravel		
		56-58'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/f gravel, wet		
		58-60'	0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish orange, medium-v coarse SAND w/fine gravel, some mica		
		60-62'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
		62-64'	0.0 ppm 0.0 ppm 0.0 ppm	Ok yellowish brown, medium-coarse SAND w/very coarse sand-fine gravel, wet		
		64-66'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, coarse SAND w/very coarse sand-fine gravel, wet		
		66-68'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/very coarse sand-fine gravel, wet		
		68-70'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
		70-72'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, fine-coarse SAND w/some mica		
		74-76'	0.0 ppm 0.0 ppm 0.0 ppm	Pale yellowish brown, medium-coarse SAND w/very coarse sand-fine gravel, wet		
		76-78'	0.0 ppm 0.0 ppm 0.0 ppm	Pale-dark yellowish brown, medium-coarse SAND, w/very coarse sand-fine gravel, some mica, wet		
		78-80'	0.0 ppm 0.0 ppm 0.0 ppm	Pale yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
		80-82'	0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange, medium-coarse SAND w/some fine gravel, wet		

Consulting Firm: Dvirka & Bortilucci				Site Id: HIMW-10D		
Location: Hempstead				Date(s): 09/19/00 - 09/20/00		
Purpose: Monitoring Well, Deep				Total Depth: 139.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'	0.0 ppm 0.0 ppm	Grayish orange, medium-very coarse SAND w/some fine gravel		
		72-74'	0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange, medium-coarse SAND w/some fine gravel, wet		
		74-76'	0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange, medium-coarse SAND w/very coarse sand, some fine gravel and mica, wet		
		76-78'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellowish brown, coarse-very coarse SAND w/fine-coarse gravel, wet		
		78-80'	0.0 ppm 0.0 ppm	Same as above		
		80-82'	0.0 ppm 0.0 ppm	Dark yellowish orange, silty clayey fine SAND, micaceous, wet		
		82-84'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange-yellowish gray, silty clayey fine SAND, micaceous		
		84-86'	0.0 ppm 0.0 ppm 0.0 ppm	Yellowish gray to medium-light gray, silty clayey fine SAND w/some mica		
		86-88'	0.0 ppm 0.0 ppm 0.0 ppm	Yellow gr, f SAND w/trace silt and mica, thin layers of f sand and silt		
		88-90'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, fine-medium SAND w/some mica, wet		
		90-92'	0.0 ppm 0.0 ppm	Dusky yellow, fine-medium SAND w/some mica		
		92-94'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, silty clayey fine-medium SAND w/some mica		
		94-96'	0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish orange, CLAY w/lt brown clayey sand, micaceous, med stiff		
		96-98'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange-lt br, fine-med SAND w/trace silt, some mica, wet		
		98-100'	0.0 ppm 0.0 ppm	Dark yellowish orange, fine-medium SAND, micaceous, wet		
		100-102'	0.0 ppm 0.0 ppm	Pale yellowish brown and dark yellowish orange, fine-medium SAND w/thinly bedded pale yellowish brown clay and mica		
		102-104'	0.0 ppm 0.0 ppm	Dk yellowish orange, medium SAND w/pale yellow brown, medium stiff clay		
		104-106'	0.0 ppm 0.0 ppm	Medium-light gray and dark yellowish orange, medium SAND, micaceous		
		106-108'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange and lt brown, med SAND w/thinly bedded clay, mica		
		108-110'	0.0 ppm 0.0 ppm 0.0 ppm	Dusky yellowish brown and light brown, medium SAND, micaceous, wet		
			0.0 ppm 0.0 ppm	Yellowish gray and dusky yellow, medium SAND, trace silt, micaceous, wet		
			0.0 ppm 0.0 ppm	Same as above		
			0.0 ppm 0.0 ppm	Dark yellow orange and pale yellowish brown, medium SAND w/trace silt, micaceous, wet		
			0.0 ppm 0.0 ppm	Dk yellowish orange-moderate brown, clayey medium SAND w/thinly bedded clay, micaceous		
			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange and grayish orange, medium SAND w/trace silt, micaceous, wet		
			0.0 ppm 0.0 ppm	Same as above		

Consulting Firm: Dvirka & Bartilucci				Site Id: HMW-100		
Location: Hempstead				Date(s): 09/19/00 - 09/20/00		
Purpose: Monitoring Well, Deep				Total Depth: 139.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112'	0.5 ppm	Dk yellowish orange and grayish orange, m SAND w/trace clay, micaceous		
112		112-114'	0.8 ppm 1.7 ppm	Dark yellowish orange and grayish orange, medium SAND, trace silt, micaceous, wet		
114		114-116'	0.0 ppm 0.0 ppm	Same as above, no silt		
116		116-118'	0.0 ppm 0.0 ppm	Dark yellowish orange, medium SAND, micaceous, wet		
118		118-120'	0.0 ppm 0.0 ppm	Same as above		
120		120-122'	0.0 ppm 0.0 ppm	Dark yellowish orange and medium gray, medium SAND w/stringers of medium-light gray, clayey fine sand, micaceous, wet		
122		122-124'	0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish orange and lt-mod brown, m-c SAND w/gravel, some mica, wet Pale yellowish br and pale yellowish orange, m-c SAND w/f gravel, wet		
124		124-126'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellowish brown, med-coarse SAND w/stringers of clayey f sand, wet Med-lt gray and dk yellowish orange, fine SAND w/trace clay, micaceous		
126		126-128'	0.0 ppm 0.0 ppm	Dark gray, silty CLAY, micaceous, stiff		
128		128-130'	0.0 ppm 0.0 ppm 0.0 ppm	Grayish bk, m SAND w/silt, some clay, interbedded w/dk gr micaceous clay Dark gray, clayey fine-medium SAND, micaceous, interbedded w/dark gray clay, micaceous, soft, wet		
130		130-132'	0.0 ppm 0.0 ppm	Medium-dark gray, fine-medium micaceous SAND w/dark gray soft micaceous clay		
135		135-137'	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY w/some silt, micaceous, medium stiff		
139		139	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY w/some silt, thin lenses of medium gray fine sand, micaceous, medium stiff Base of boring - 139 ft.		

135
Lower



Site Id: HIMW-110

Date(s): 10/23/00 - 10/24/00

Datum: Mean Sea Level

Elevation: 71.61'

Measuring Point: 71.39'

Completed Depth: 121.00'

Total Depth: 126.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schafer

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 28.00' to: 38.00'
type: Slotted size: 0.010in dia: 2.00in fm: 80.00' to: 90.00'
type: Slotted size: 0.010in dia: 2.00in fm: 109.00' to: 119.00'

Remarks: Includes well screens for monitoring wells:
HIMW-11S, HIMW-11I and HIMW-11D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-2'				No recovery		
2-4'			0.0 ppm	Black, SILT w/some fine gravel, soft, non-plastic		
4-6'			187 ppm	Black, clayey SILT, soft, plastic to gray, silty gravelly fine-coarse SAND w/fine gravel, loose, petroleum-like odor, dry		
6-8'			119 ppm 92 ppm	Dark gray, CLAY, soft, plastic, petroleum-like odor, moist		
8-10'			96 ppm 314 ppm	Dark gray, CLAY, soft, plastic, moist to light brown, fine-coarse SAND w/fine gravel, loose, moist, petroleum-like odor		
10-12'			283 ppm 203 ppm	Light brown, fine-coarse SAND w/fine gravel, petroleum-like odor		
12-14'			213 ppm	Brown, fine-coarse SAND w/some fine gravel, petroleum-like odor		
14-16'			119 ppm 133 ppm	Same as above		
16-18'			201 ppm 96 ppm	Brown, fine-coarse SAND w/some fine gravel, petroleum-like odor, intermittent black to brown staining		
18-20'			122 ppm 167 ppm 190 ppm	Brown, fine-coarse SAND w/some fine gravel, trace coarse gravel, petroleum-like odor, lenses of black staining w/NAPL, wet		
20-22'			101 ppm 112 ppm	Brown, fine-coarse SAND w/fine gravel, petroleum-like odor, some black staining		
22-24'			144 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel, petroleum-like odor, intermittent brown staining		
24-26'			168 ppm 219 ppm 280 ppm	Brown-tan, fine-coarse SAND w/fine gravel, petroleum-like odor, lenses of brown staining w/NAPL, moist to wet		
26-28'			195 ppm 104 ppm 230 ppm	Brown, fine-coarse SAND w/fine gravel, petroleum-like odor, some brown staining		
28-30'			231 ppm 275 ppm 290 ppm	Light brown, fine-coarse SAND w/fine gravel, petroleum-like odor, black-brown staining		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-11D		
Location: Hempstead				Date(s): 10/23/00 - 10/24/00		
Purpose: Monitoring Well, Deep				Total Depth: 126.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	208 ppm	Br, f-c SAND w/f gravel, petroleum-like odor, br staining, sheen, wet at 31'		
		32-34'	190 ppm 150 ppm 76 ppm	Brown to gray, gravelly fine to coarse SAND w/fine-coarse gravel, petroleum-like odor, slight staining, sheen, wet		
		34-36'	176 ppm 41 ppm	Gray to light brown, fine-coarse SAND w/fine gravel, petroleum-like odor, slight staining, sheen, wet		
		36-38'	0.0 ppm 5.4 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, slight petroleum-like odor, loose, wet		
		38-40'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, wet		
		40-42'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		42-44'	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		44-46'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, gravelly fine-coarse SAND w/fine gravel, loose, wet		
		46-48'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, wet		
		48-50'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		50-52'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light brown, fine-medium SAND w/some coarse sand and fine gravel, loose, wet		
		52-54'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light brown, fine-coarse SAND w/trace fine gravel, loose, wet		
		54-56'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light orange-brown, fine-coarse SAND w/fine gravel and some coarse gravel, loose, wet		
		56-58'	0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/trace fine gravel, loose, wet		
		58-60'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel, loose, wet		
		60-62'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
		62-64'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Light yellow-brown, fine SAND w/some silt and clay lenses, medium dense-dense, wet		
		64-66'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Yellow-brown, fine SAND w/some silt and clay, medium dense-dense, wet		
		66-68'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown to brown, fine SAND w/silt, medium dense-dense, wet		
		68-70'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown to brown, fine SAND w/some silt, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HMW-11D		
Location: Hempstead				Date(s): 10/23/00 - 10/24/00		
Purpose: Monitoring Well, Deep				Total Depth: 126.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		0.0 ppm 0.0 ppm		Orange-brown, fine SAND w/some silt and clay, medium dense-dense, wet		
72-74'		0.0 ppm 0.0 ppm 0.0 ppm		Brown-tan, silty fine SAND, medium dense, wet		
74-76'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Brown, fine SAND w/some silt, medium dense, wet		
76-78'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Brown, fine SAND w/some silt, medium dense-dense, wet		
78-80'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Brown, very fine-fine SAND w/some silt, medium dense-dense, wet		
80-82'		0.0 ppm 0.0 ppm		Same as above		
82-84'		0.0 ppm 0.0 ppm 0.0 ppm		Brown, very fine-fine SAND w/silt, slight clay lenses, gray-brown banding, medium dense-dense, wet		
84-86'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Same as above		
86-88'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Same as above		
88-90'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-medium SAND w/some silt, medium dense, wet		
90-92'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-medium SAND w/some silt, clay lenses, medium dense		
92-94'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine-medium SAND w/gray clay lenses, medium dense-dense, wet		
94-96'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, fine SAND w/some silt, gray-black banding, medium dense, wet		
96-98'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Same as above		
98-100'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Gray-brown, very stiff CLAY, slightly plastic, moist		
100-102'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm		Orange-brown, silty very fine-fine SAND w/some clay lenses, gray-black banding, medium dense-dense, wet		
102-104'		0.0 ppm 0.0 ppm 0.0 ppm		Same as above		
104-106'		0.0 ppm 0.0 ppm 0.0 ppm		Brown, fine SAND w/silt, black-gray clay lenses, medium dense, wet		
106-108'		0.0 ppm 0.0 ppm 0.0 ppm		Brown, very fine-fine SAND w/some silt, clay lenses, black-gray banding, medium dense-dense, moist-wet		
108-110'		0.0 ppm 0.0 ppm		Brown, very fine-fine SAND w/some silt, medium dense, wet		
110-112'		0.0 ppm 0.0 ppm		Brown, very fine-fine SAND w/some silt, gray-black banding, medium dense, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-110		
Location: Hempstead				Date(s): 10/23/00 - 10/24/00		
Purpose: Monitoring Well, Deep				Total Depth: 126.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		110-112'	0.0 ppm	Brown, v fine-fine SAND w/some silt, gray-bk banding, medium dense, wet		
		112-114'	0.0 ppm	Same as above		
		114-116'	0.0 ppm	Brown, fine SAND w/trace silt, black-gray banding, medium dense, wet		
		116-118'	0.0 ppm	Brown, fine-med SAND w/some silt, some maroon colored sand, dense, wet		
		118-120'	0.0 ppm	Brown, fine-medium SAND w/some silt, medium dense, wet		
		120-122'	0.0 ppm	Dark brown, CLAY, semi-stiff, plastic, moist		
		122-124'	0.0 ppm	Gray, very fine-fine SAND, medium dense, wet		
		124-126'	0.0 ppm	Black, silty very fine-fine SAND w/silt, medium dense, wet		
			0.0 ppm	Dark brown, CLAY w/very fine sand lenses, plastic, stiff		
			0.0 ppm	Dark brown, CLAY w/very fine sand lenses, plastic, stiff, moist		
			0.0 ppm	Same as above		
			0.0 ppm	Base of boring - 126 ft.		

Page 4 of 4



Site Id: HIMW-12D

Date(s): 12/28/00 - 01/02/01

Datum: Mean Sea Level

Elevation: 62.09'

Measuring Point: 61.82'

Completed Depth: 129.00'

Total Depth: 182.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hand Auger 0-5', Hol. Stem Auger 5-182'

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:

type: Slotted size: 0.020in dia: 2.00in fm: 22.00' to: 32.00'
type: Slotted size: 0.010in dia: 2.00in fm: 63.00' to: 73.00'
type: Slotted size: 0.010in dia: 2.00in fm: 117.00' to: 127.00'

Remarks: Includes well screens for monitoring wells:
HIMW-12S, HIMW-12I and HIMW-12D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0-5'				Asphalt Dusky yellowish brown, med-coarse SAND w/fine-coarse gravel, trace silt		
5-7'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish brown, coarse-very coarse SAND w/fine-coarse gravel		
10-12'			0.0 ppm 0.0 ppm	Moderate brown-moderate yellowish brown, fine SAND w/some mica, trace silt		
15-17'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate brown, medium-coarse SAND w/some fine gravel, mica, trace silt		
20-22'			0.0 ppm 0.0 ppm	Dark yellowish orange-moderate yellowish brown, medium-very coarse SAND w/fine gravel, some mica, moist		
22-24'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate-dark yellowish brown, medium-coarse SAND w/some fine gravel and mica, wet		
24-26'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/some f gravel, wet Dark yellowish orange, medium-very coarse SAND, some fine gravel		
26-28'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, medium-coarse SAND w/some very coarse sand and fine gravel, wet		
28-30'			0.0 ppm 0.1 ppm	Dark yellowish brown-dark yellowish orange, coarse-very coarse SAND w/fine gravel, trace silt, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-12D		
Location: Hempstead				Date(s): 12/28/00 - 01/02/01		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	0.1 ppm 0.0 ppm	Lt brown-yellowish brown-yellowish orange, coarse SAND w/some mica, wet		
		32-34'	0.0 ppm 0.3 ppm 0.1 ppm	Moderate yellowish brown-dark yellowish orange, coarse-very coarse SAND w/fine gravel, trace silt, wet		
		34-36'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/very coarse sand and fine gravel, little mica, wet		
		36-38'	0.0 ppm 0.0 ppm 1.1 ppm	Dark yellowish orange-pale yellowish brown, medium-very coarse SAND w/some f gravel, little mica, hydrocarbon-like odor, wet		
		38-40'	1.2 ppm 3.0 ppm 6.1 ppm 4.1 ppm	Yellowish gray and medium-dark gray, coarse-very coarse SAND w/fine gravel, slight hydrocarbon-like odor, discoloration, wet		
		40-42'	0.0 ppm 0.9 ppm 3.3 ppm 7.0 ppm	Same as above, no discoloration		
		42-44'	0.0 ppm 2.8 ppm 2.2 ppm	Yellowish gray, coarse-very coarse SAND w/some fine gravel, trace mica		
		44-46'	0.0 ppm 1.6 ppm 1.9 ppm	Yellowish gray-moderate yellowish brown, medium-very coarse SAND w/some fine gravel and little mica, wet		
		46-48'	0.0 ppm 1.2 ppm 0.0 ppm	Moderate yellowish brown, medium SAND w/little mica, trace silt, wet		
		48-50'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellow brown, med-very coarse SAND w/little f gravel and mica, wet		
		50-52'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dk yellow orange-mod yellow brown, m-c SAND w/f gravel, some mica, wet		
		52-54'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellow brown, med-very coarse SAND w/fine gravel, some mica, wet		
		54-56'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellow brown, coarse-very coarse SAND w/fine gravel, little mica		
		56-58'	0.0 ppm 5.6 ppm 3.2 ppm	Moderate yellowish brown, medium-very coarse SAND, some fine gravel, mica, wet		
		58-60'	0.0 ppm 1.2 ppm 1.2 ppm	Lt yellowish br, med-v coarse SAND, some f gravel and little mica, wet		
		60-62'	0.0 ppm 3.9 ppm 4.9 ppm 1.1 ppm 1.4 ppm	Dark yellowish orange, medium-coarse SAND w/some mica, wet		
		62-64'	0.0 ppm 0.0 ppm	Lt yellowish brown, med-coarse SAND w/some mica, little f gravel, wet		
				Yellowish gray-pale yellowish orange, medium SAND w/some mica, wet		
				Moderate yellowish brown, medium-coarse SAND w/some mica, wet		
				Pale yellowish orange, medium SAND w/little mica, trace clay		
				Dark yellowish orange, medium SAND w/some mica, wet		
				Dark yellow orange, clayey fine-med SAND w/f gravel, some mica, wet		
				Grayish orange, coarse SAND w/some mica, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-12D		
Location: Hempstead				Date(s): 12/28/00 - 01/02/01		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		70-72'	0.4 ppm 0.2 ppm	Dark yellowish orange, clayey coarse SAND w/some mica, wet		
75-77'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, coarse SAND w/some mica, wet		
80-82'			0.3 ppm 0.2 ppm 0.0 ppm	Grayish orange, coarse SAND w/some mica, trace silt, wet		
85-87'			0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange, coarse SAND w/fine gravel, some mica, trace silt, wet Grayish yellow and medium-dark gray, medium SAND w/very coarse sand, micaceous, trace silt		
90-92'			0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dk yellow orange, coarse SAND w/mica, little f gravel, trace silt, wet Light brown-pale yellowish brown, medium SAND w/mica, trace fine gravel and silt, wet		
95-97'			0.5 ppm 2.2 ppm 1.2 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet Dark yellowish orange, medium-coarse SAND w/some mica, trace clay, wet		
100-102'			0.0 ppm 0.0 ppm 0.0 ppm	Yellowish gray, fine-medium SAND, micaceous, wet Moderate yellowish brown, medium SAND w/some mica, wet		
105-107'			0.3 ppm 0.4 ppm 0.4 ppm 0.5 ppm	Yellowish br, medium SAND w/some mica, trace coarse sand and silt, wet Moderate yellowish brown-light brown, coarse SAND w/mica, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HMW-12D		
Location: Hempstead				Date(s): 12/28/00 - 01/02/01		
Purpose: Monitoring Well, Deep				Total Depth: 182.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110-112		0.0 ppm 0.4 ppm 0.6 ppm	0.0 ppm 0.4 ppm 0.6 ppm	Pale yellowish brown-dark yellowish orange, med SAND, micaceous, wet Dark gray, clayey fine SAND, micaceous		
115-117		0.0 ppm 1.8 ppm 0.3 ppm	0.0 ppm 1.8 ppm 0.3 ppm	Gray orange-yellow orange, med-coarse SAND, micaceous, trace silt, wet Dark gray, sandy CLAY, micaceous		
120-122		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Gray orange-yellow orange, med-coarse SAND, micaceous, trace clay, wet Dark gray, fine SAND w/lignite and some clay, micaceous, dry		
125-127		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Mod yellow brown, medium-very coarse SAND w/t gravel, some mica, wet Lt yellow brown-red brown-dk yellow orange, med SAND, micaceous, wet		
130-132		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Yellow brown, med-v coarse SAND w/t gravel, some mica, trace clay, wet Dark gray, silty CLAY w/pyrite, micaceous		
135-137		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Yellow brown-gray, clayey fine SAND w/lignite, micaceous, trace gravel Light brown-moderate gray, medium SAND, trace clay, mica		
140-142		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Dark gray, CLAY, medium stiff, micaceous, some silt Pale yellowish brown-light gray, fine-medium SAND, trace clay, micaceous, wet		
145-147		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Yellow brown and brown gray, med-coarse SAND w/mica, trace silt, wet Moderate-light gray, medium SAND w/mica, wet		

Consulting Firm: Dvirka & Bartilucci

Site Id: HIMW-12D

Location: Hempstead

Date(s): 12/28/00 - 01/02/01

Purpose: Monitoring Well, Deep

Total Depth: 182.00'

Depth (ft)	Recovery	Sample Interval	PI	Material Description	Graphic Log	Screen Zones
150		150-152	0.0 ppm 0.0 ppm	Moderate yellowish brown, medium SAND w/mica, wet Moderate gray-brownish gray, medium SAND, micaceous, wet		
155		155-157	0.0 ppm 0.0 ppm 0.0 ppm	Moderate-dark gray, medium-coarse SAND, micaceous, trace clay, wet Same as above, no clay		
160		160-162	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, trace clay		
165		165-167	0.0 ppm 0.0 ppm 0.0 ppm	Moderate-dark gray, coarse SAND w/some mica, lignite, wet		
170		170-172	0.0 ppm 0.0 ppm 0.0 ppm	Moderate-dark gray, medium-coarse SAND w/some mica, wet Moderate-dark gray and grayish black, silty CLAY, medium stiff		
175		175-177	0.0 ppm 0.0 ppm 0.0 ppm	Moderate-light gray, silty fine sandy CLAY, micaceous, stiff-medium stiff		
180		180-182	0.0 ppm 0.0 ppm 0.0 ppm	Moderate-light gray, sandy CLAY, micaceous Moderate-light gray, medium SAND, micaceous, wet Base of boring - 182 ft.		



Site Id: HIMW-13D

Date(s): 12/20/00 - 12/21/00

Datum: Mean Sea Level

Elevation: 72.95'

Measuring Point: 72.53'

Completed Depth: 122.00'

Total Depth: 175.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Diamond

Drilling Method: Hollow Stem Auger

Borehole Dia.: 6.50in

Contractor: Delta Well & Pump

Screens:





type: Slotted size: 0.020in dia: 2.00in fm: 38.00' to: 48.00'
type: Slotted size: 0.010in dia: 2.00in fm: 70.00' to: 80.00'
type: Slotted size: 0.010in dia: 2.00in fm: 110.00' to: 120.00'


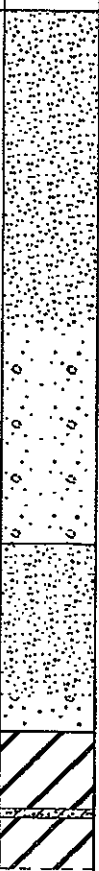







Remarks: Includes well screens for monitoring wells:
HIMW-13S, HIMW-13I and HIMW-13D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
5-7'		0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish orange-grayish orange, coarse-very coarse SAND w/fine gravel		
10-12'		0.0 ppm 0.0 ppm		Dark yellowish orange-light brown, coarse-very coarse SAND w/fine gravel		
15-17'		0.0 ppm 0.0 ppm 0.0 ppm		Dark yellowish orange-pale yellowish brown, coarse-very coarse SAND w/fine gravel, trace mica		
20-22'		0.0 ppm 0.0 ppm 0.0 ppm		Grayish orange, coarse-very coarse SAND w/fine gravel, trace mica		
25-27'		0.0 ppm 0.0 ppm		Dark yellowish orange, coarse-very coarse SAND w/fine gravel		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-130		
Location: Hempstead				Date(s): 12/20/00 - 12/21/00		
Purpose: Monitoring Well, Deep				Total Depth: 175.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	0.0 ppm	Dark yellowish orange-grayish orange, coarse SAND w/very coarse sand and fine gravel		
35		35-37'	0.0 ppm 0.0 ppm	Grayish orange, coarse SAND w/fine gravel, trace mica Dark yellowish orange-light brown, coarse-very coarse SAND w/fine gravel		
40		40-42'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellowish brown, coarse-v coarse SAND w/fine-coarse gravel, wet Dark yellowish orange, medium SAND w/little mica		
45		45-47'	0.0 ppm 0.0 ppm	Moderate brown, coarse-very coarse SAND w/fine gravel, wet Dark yellowish orange, coarse SAND w/some very coarse sand and fine gravel, wet		
50		50-52'	0.0 ppm 0.0 ppm	Mod yellowish brown, med-v coarse SAND w/f gravel, little mica, wet Dark yellowish orange, medium-coarse SAND w/fine gravel, wet		
55		55-57'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown-light brown, coarse SAND w/some fine-coarse gravel, trace mica, wet		
60		60-62'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/some fine gravel, wet		
65		65-67'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Mod yellowish brown, med-very coarse SAND w/some fine gravel, wet Dark yellowish orange-pale yellowish brown, coarse-very coarse SAND, w/fine gravel, trace coarse gravel and mica, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-13D		
Location: Hempstead				Date(s): 12/20/00 - 12/21/00		
Purpose: Monitoring Well, Deep				Total Depth: 175.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse-very coarse SAND w/fine gravel, wet		
75-77'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, medium-very coarse SAND, little f gravel, trace coarse gravel, mica, wet		
80-82'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse SAND w/little fine gravel and mica, wet		
85-87'			0.0 ppm 0.0 ppm 0.0 ppm	Pale yellowish brown, medium-coarse SAND w/little mica, trace fine gravel, wet		
90-92'			0.0 ppm 0.0 ppm 0.0 ppm	Grayish orange, medium-coarse SAND w/fine gravel, some mica, wet Pale yellowish orange, medium SAND w/mica, wet		
95-97'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse SAND w/some mica, wet Moderate yellowish brown-dark yellowish orange, clayey medium-coarse SAND, wet		
100-102'			0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellowish brown, coarse SAND w/trace clay and fine gravel, wet Dark yellowish orange, clayey medium SAND, wet		
105-110'			0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange-moderate yellowish brown, coarse SAND, micaceous, wet Dark yellowish orange-moderate reddish brown-light gray, CLAY, soft, micaceous,		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-13D		
Location: Hempstead				Date(s): 12/20/00 - 12/21/00		
Purpose: Monitoring Well, Deep				Total Depth: 175.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		110-112'	0.0 ppm 0.2 ppm 0.7 ppm 0.3 ppm	Moderate brown, medium SAND w/some mica, trace fine gravel, wet Dark yellowish orange, medium-coarse SAND w/some mica, wet		
115		115-117'	0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish orange, medium-coarse SAND w/some mica, wet Moderate brown, coarse SAND w/trace clay		
120		120-122'	0.0 ppm 0.0 ppm	Mod-dk yellow brown, clayey med-v coarse SAND w/trace f gravel, little mica, pockets of dark yellow orange clay		
125		125-127'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dk yellow br-gray orange, clayey med-coarse SAND, little f gravel, some mica, thin beds of yellowish gray clay, wet		
130		130-132'	0.0 ppm 0.0 ppm 0.0 ppm	Mod yellow brown, med SAND w/some mica and v coarse sand, wet Gray orange-yellow gray, clayey m SAND w/some sandy clay, micaceous		
		132-134'	0.0 ppm 0.0 ppm 0.4 ppm 0.0 ppm	Dk yellow orange-mod yellow brown, clayey med SAND, micaceous, wet Lt yellow orange-gray, med SAND w/thinly bedded clay, micaceous		
		134-136'	0.0 ppm 0.0 ppm 0.0 ppm	Lt yellow brown, clayey med SAND w/thinly bedded clay, micaceous Dk yellow orange-yellow br, m SAND w/thinly bedded clay, micaceous		
		136-138'	0.0 ppm 0.0 ppm 0.0 ppm	Dk yellow orange-yellow brown, sandy CLAY, soft, micaceous Dk yellow orange-gray orange, m SAND w/thinly bedded clay, micaceous		
		138-140'	0.0 ppm 0.0 ppm 0.0 ppm	Moderate yellow brown, clayey medium SAND, micaceous, wet Dk yellow orange-grayish orange-lt brown, m SAND w/clay, micaceous		
140		140-142'	0.0 ppm 0.0 ppm 0.0 ppm	Light brown-dark yellow orange-light gray, medium SAND w/some clay, micaceous, wet		
		144-145'		No recovery		
148		148-150'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dk yellowish brown, med SAND w/fine-coarse gravel, micaceous, wet Dark yellow brown-dark gray, clayey fine-medium SAND, micaceous		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-13D		
Location: Hempstead				Date(s): 12/20/00 - 12/21/00		
Purpose: Monitoring Well, Deep				Total Depth: 175.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
150-152		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Dark yellow orange-medium gray, clayey medium SAND, micaceous		
154-156		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellowish brown, clayey medium SAND, micaceous, wet Gray, clayey med-fine SAND w/thinly bedded med gray clay, micaceous		
158-160		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellow brown, clayey fine SAND w/thinly bedded clay, micaceous Gray, coarse SAND, lignite, some mica, wet		
162-164		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellow brown, medium-coarse SAND w/some fine gravel Gray, medium SAND w/mica		
165-167		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Dark yellow brown, medium-very coarse SAND w/some fine gravel, wet Gray, clayey medium SAND w/thin bed of lignite, micaceous		
170-172		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Gray, medium SAND w/little clay, micaceous, wet Grayish black, silty CLAY, medium stiff, micaceous		
175		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Gray-black, silty CLAY, stiff, micaceous, thin bed of clayey medium sand Base of boring - 175 ft.		



Site Id: HIMW-14D

Date(s): 12/06/01 - 12/10/01

Datum: Mean Sea Level

Elevation: 71.99'

Measuring Point: 71.59'

Completed Depth: 152.00'

Total Depth: 152.00'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schafer

Drilling Method: Hand Auger 0-5', Hol. Stem Auger 5-152'

Borehole Dia.: 6.75in

Contractor: Delta Well & Pump

Screens:


















type: Slotted size: 0.010in dia: 2.00in fm: 85.00' to: 95.00'
type: Slotted size: 0.010in dia: 2.00in fm: 140.00' to: 150.00'

Remarks: Includes well screens for monitoring wells:
HIMW-14I and HIMW-14D



Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
5				Brown, TOPSOIL, loose, soft, earthy smell, dry Silty TOPSOIL w/some sand and fine gravel Tan, fine-coarse SAND w/some fine gravel MATERIAL DESCRIPTIONS CONTINUE AT 30'.		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-14D		
Location: Hempstead				Date(s): 12/06/01 - 12/10/01		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		30-32'	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine-coarse gravel, loose, dry		
35		35-37'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, wet		
40		40-42'		No recovery - several large chunks of coarse gravel in split spoon		
45		45-47'	0.0 ppm 0.0 ppm 0.0 ppm	Lt orange-brown, fine gravelly fine-coarse SAND w/some coarse gravel, medium dense, wet		
50		50-52'	0.0 ppm 0.0 ppm	Same as above Very fine-fine SAND w/some fine gravel, semi-loose, wet		
55		55-57'	0.0 ppm 0.0 ppm	Lt orange-brown, fine-medium SAND w/some coarse gravel, trace fine gravel, loose, wet		
60		60-62'	0.0 ppm 0.0 ppm	Brown, fine-coarse SAND w/fine gravel, loose, wet		
65		65-67'	0.0 ppm 0.0 ppm 0.0 ppm	Tan, fine-coarse SAND w/trace fine gravel, loose, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-14D		
Location: Hempstead				Date(s): 12/06/01 - 12/10/01		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		70-72'	0.0 ppm 0.0 ppm	Tan, fine-medium SAND, semi-loose, wet		
75-77'		75-77'	0.0 ppm 0.0 ppm 0.0 ppm	Tan, fine-coarse SAND w/some fine-coarse gravel, semi-loose, wet		
80-82'		80-82'	0.0 ppm 0.0 ppm	Tan, very fine-fine SAND, semi-loose, slight naphthalene-like odor, wet		
85-87'		85-87'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, silty very fine-fine SAND, dense, naphthalene-like odor		
90-92'		90-92'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Brown, very fine-fine SAND w/some silt, medium dense, slight naphthalene-like odor, wet		
95-97'		95-97'	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, SAND w/silt, black silty laminations, dense, slight naphthalene-like odor, wet		
100-102'		100-102'	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Gray to brown, very fine-fine SAND with silt/clay lenses, some black laminations, slight naphthalene-like odor Brown, CLAY		
145-147'		145-147'	0.0 ppm 0.0 ppm	Orange-brown, sandy SILT w/black laminations, soft, plastic, slight naphthalene-like odor		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-14D		
Location: Hempstead				Date(s): 12/06/01 - 12/10/01		
Purpose: Monitoring Well, Deep				Total Depth: 152.00'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112	0.0 ppm 0.0 ppm	Dark brown, CLAY w/many gray fine silty very fine sand laminations, pyrite, lignite, dense to semi-soft, slightly plastic to non-plastic, slight, marshy odor		
115		115-117	0.0 ppm 0.0 ppm 0.0 ppm	Dark brown, CLAY w/some gray fine silty very fine sand laminations, slight marshy odor Orange-brown to brown, fine-medium SAND, semi-loose, wet		
120		120-122	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine SAND w/many black to gray fine sandy silty clayey laminations, soft, plastic, moist		
125		125-127	0.0 ppm 0.0 ppm	Brown, fine-medium SAND w/some black to gray fine silt laminations, medium dense, wet		
130		130-132	0.0 ppm 0.0 ppm 0.0 ppm	Gray to orange-brown, silty fine SAND w/many dark brown fine laminations, medium dense, wet		
135		135-137	0.0 ppm 0.0 ppm 0.0 ppm	Dark brown, CLAY, very dense, slightly plastic, moist Orange-brown to gray to dark brown, fine sand/silt/clay unit, finely laminated, soft, plastic		
140		140-142	0.0 ppm 0.0 ppm 0.0 ppm	Dark brown, CLAY, very dense, slightly plastic, moist Orange-brown to gray to dark brown, silty clayey fine SAND, finely laminated, soft, plastic		
145		145-147	0.0 ppm 0.0 ppm 0.0 ppm	Tan, fine SAND w/some med sand, some gray and orange-brown stringers, loose, wet		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-14D	
Location: Hempstead				Date(s): 12/06/01 - 12/10/01	
Purpose: Monitoring Well, Deep				Total Depth: 152.00'	

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
150		150 - 152	0.0 ppm 0.0 ppm	Tan-br to orange-br, f SAND w/trace m sand, semi-loose, wet Base of boring - 152 ft.		
145						
140						
135						
130						
125						
120						
115						
110						
105						
100						
95						
90						
85						
80						
75						
70						
65						
60						
55						
50						
45						
40						
35						
30						
25						
20						
15						
10						
5						
0						



Site Id: HIMW-15D

Date(s): 12/20/01 - 12/20/01

Datum: Mean Sea Level

Elevation: 64.36'

Measuring Point: 63.96'

Completed Depth: 153.50'

Total Depth: 153.50'

Location: Hempstead

Purpose: Monitoring Well, Deep

Logged By: J. Schafer

Drilling Method: Hand Auger 0-5', Hol. Stem Auger 5-152'

Borehole Dia.: 6.75in

Contractor: Delta Well & Pump











Screens:

type: Slotted size: 0.010in dia: 2.00in fm: 80.00' to: 90.00'
type: Slotted size: 0.010in dia: 2.00in fm: 141.50' to: 151.50'


















Remarks: Includes well screens for monitoring wells:
HIMW-15I and HIMW-15D

Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
0		0-3	0.0 ppm	Orange-brown, fine-coarse sandy FILL w/fine well-rounded gravel, asphalt Orange-brown, fine-coarse SAND w/fine well-rounded gravel, trace biotite		
5						
10						
15						
20						
25						
30						
35						
40						
45						
50						
55						
60						
65						
70						
75						
80						
85						
90						
95						
100						
105						
110						
115						
120						
125						
130						
135						
140						
145						
150						
153.50						

MATERIAL DESCRIPTIONS CONTINUE AT 30'

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-15D		
Location: Hempstead				Date(s): 12/20/01 - 12/20/01		
Purpose: Monitoring Well, Deep				Total Depth: 153.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
30-32'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, loose, moist		
35-37'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Orange-brown, fine-coarse SAND w/trace fine gravel, semi-loose, wet		
40-42'		0.0 ppm	0.0 ppm	Fine semi-rounded GRAVEL w/some fine sand, hard, wet		
45-47'		0.0 ppm	0.0 ppm	Orange-brown, fine-coarse SAND w/some fine gravel, semi-loose, wet		
50-52'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, brown		
55-57'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Same as above, swaths of natural red-brown staining		
60-62'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND w/some medium sand, trace coarse sand, semi-loose, some swaths of natural brown staining		
63-65'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Brown, fine SAND w/some fine gravel at 66', f orange-brown laminations at 66.25', semi-loose, natural dark brown staining, wet		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-150		
Location: Hempstead				Date(s): 12/20/01 - 12/20/01		
Purpose: Monitoring Well, Deep				Total Depth: 153.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
70-72'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Brown, very fine-fine SAND w/some clay/silt layers, medium dense, wet		
75-77'		0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm 0.0 ppm	Yellow-br, silty clayey v fine SAND, some v fine laminations/striations, medium dense, wet		
80-82'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Yellow-br-tan, v fine SAND with dk br clay/silt laminations/striations, medium dense, moist		
85-87'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Yellow-br, silty clayey v fine SAND, soft, plastic, slight odor, v moist Orange-brown to tan to brown, very fine-fine SAND, loose, slight odor, moist		
90-92'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Yellow-brown-tan, v fine SAND w/dk br clay/silt laminations/striations, medium dense, moist		
95-97'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Tan to orange-brown, very fine-fine SAND w/laminations, some silt/clay, medium dense, wet		
100-102'		0.0 ppm 0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm 0.0 ppm	Tan to orange-brown, very fine SAND w/dark brown to gray silt/clay laminations, medium dense, slight odor, wet		
105-107'		0.0 ppm 0.0 ppm	0.0 ppm 0.0 ppm	Same as above		

Consulting Firm: Dvirka & Bartilucci				Site Id: HIMW-15D		
Location: Hempstead				Date(s): 12/20/01 - 12/20/01		
Purpose: Monitoring Well, Deep				Total Depth: 153.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
110		110-112	0.0 ppm 0.0 ppm 0.0 ppm	Tan to orange-brown, very fine SAND w/many dk brown to gray silt/clay laminations, medium dense, slight odor, wet		
115		115-117	0.0 ppm 0.0 ppm 0.0 ppm	Tan, fine SAND w/some silt/clay laminations, semi-dense, slight naphthalene-like odor, wet		
120		120-122	0.0 ppm 0.0 ppm	Dark brown, CLAY, soft, plastic, moist Gray, fine SAND w/mica flakes, semi-dense, slight naphthalene-like odor, wet		
125		125-127	0.0 ppm 0.0 ppm 0.0 ppm	Gray, silty very fine SAND w/few brown striations, mica flakes, medium dense, wet		
130		130-132	0.0 ppm 0.0 ppm 0.0 ppm	Same as above, striations are black, slight black clay layers		
135		135-137	0.0 ppm 0.0 ppm 0.0 ppm	Black-gray, silty CLAY, soft, plastic, wet Gray, silty very fine SAND w/black striations, mica flakes, medium dense		
140		140-142	0.0 ppm 0.0 ppm 0.0 ppm	Same as above		
145		145-147	0.0 ppm 0.0 ppm 0.0 ppm	Gray, very fine SAND w/mica flakes, semi-dense, wet		

Consulting Firm: Dvirko & Bartilucci				Site Id: HIMW-150		
Location: Hempstead				Date(s): 12/20/01 - 12/20/01		
Purpose: Monitoring Well, Deep				Total Depth: 153.50'		
Depth (ft)	Recovery	Sample Interval	PID	Material Description	Graphic Log	Screen Zones
		150 - 151'	0.0 ppm	Gray, very fine SAND w/mica flakes, semi-dense, wet Base of boring - 152 ft.		



Kevin Connare/Bufalo/URSCorp
02/13/2009 09:03 AM

To Jason Currier/Augusta/URSCorp@URSCORP
cc Jeff Harshman/Salem/URSCorp@URSCORP, Jim
Stachowski/Bufalo/URSCorp@URSCORP, Rob
Piurek/Bufalo/URSCorp@URSCORP, Thomas
bcc
Subject Re: Hempstead

Jason,

Please charge your time and expenses to 11175065.00011.

Thanks,

Kevin Connare
Senior Geologist

URS Corporation
77 Goodell St
Buffalo, NY 14203

Office Phone: 716-856-5636
Direct Phone: 716-923-1165
Cell Phone: 716-861-7661
Fax: 716-856-2545

This e-mail and any attachments are confidential. If you receive this message in error or are not the intended recipient, you should not retain, distribute, disclose or use any of this information and you should destroy the e-mail and any attachments or copies.

Jason Currier/Augusta/URSCorp



Jason Currier/Augusta/URSCorp
02/13/2009 08:49 AM

To Kevin Connare/Bufalo/URSCorp@URSCORP, Jeff
Harshman/Salem/URSCorp@URSCORP, Jim
Stachowski/Bufalo/URSCorp@URSCORP, Rob
Piurek/Bufalo/URSCorp@URSCORP, Thomas
Plante/PortlandME/URSCorp@URSCORP
cc
Subject Hempstead

Gentlemen- please provide a charge number that I can put my preparation time from this week, as well as next weeks time and expenses on.

Please provide this number before 11am this morning if possible (timesheets due by 11am)

Jason A. Currier
Health and Safety Manager/
Environmental Scientist
URS Corporation

SLUG TEST FIELD FORM *H1MW-20I*

URS CORPORATION

Geologist: *Harshman/Cornbr*

Project Name: _____

Project #: _____

Location: _____

Date & Time: *2/18/09 0905*

Well ID: *H1MW-20I*

Depth to Water: *25.83*

Depth to Bottom: *76'*

Length of Slug: *7' x 1.25" bailer (Rise)*
4' x 1" Slug (Fall + Rise)

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

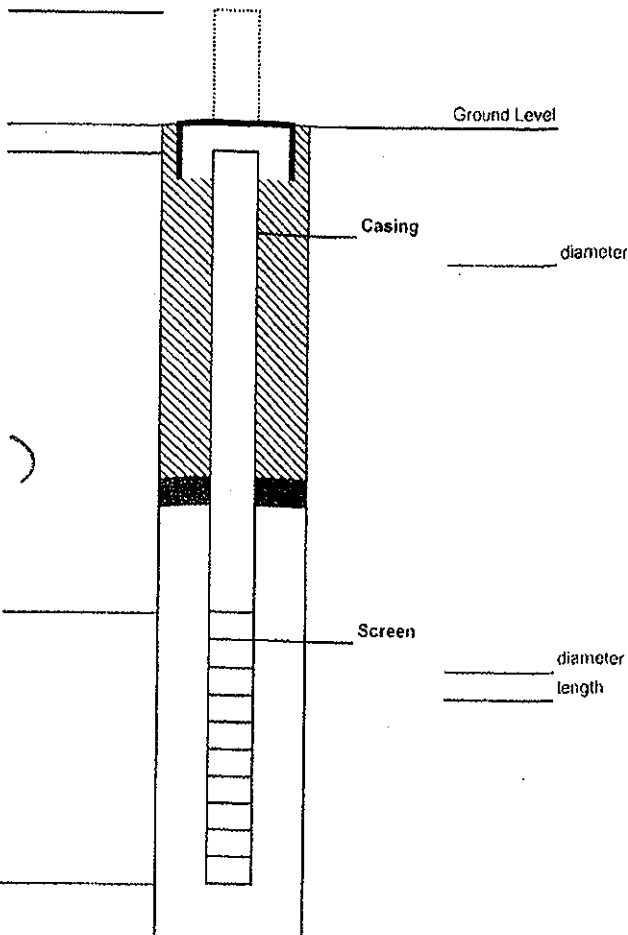
Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments:

① 20' rising 7 (note cable slipped at very end of test - disregard last data points)
② 21 falling 7
③ 21 rising 7

Results:

SLUG TEST FIELD FORM

H1MW-20S

URS CORPORATION

Geologist: _____
 Project Name: _____
 Project #: _____
 Location: _____
 Date & Time: 2/10/09 0845
 Well ID: H1MW-20S
 Depth to Water: 25.98
 Depth to Bottom: 36.65
 Length of Slug: 7' x 1.25" boiler (Rise)
4' x 1" slug (Fall + Rise)
 Diameter of Slug: _____
 Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

Top of Riser
 -if applicable-
 (feet above
 ground level)

Ground Level
 Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
 length

Comments:

① 20S falling 7
 ② 20S falling 4
 ③ 20S rising 4

Results:

SLUG TEST FIELD FORM *H1MW-15D*

URS CORPORATION

Geologist: *Harshman/Cornar*

Project Name: *National Grid
Hempstead M6PDI*

Project #: _____

Location: _____

Date & Time: *2/10/09 0800*

Well ID: *H1MW-15D*

Depth to Water: *26.78*

Depth to Bottom: _____

Length of Slug: *7' x 1.25" bailer (Rising)
4' x 1" slug (Fall + Rise)*

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

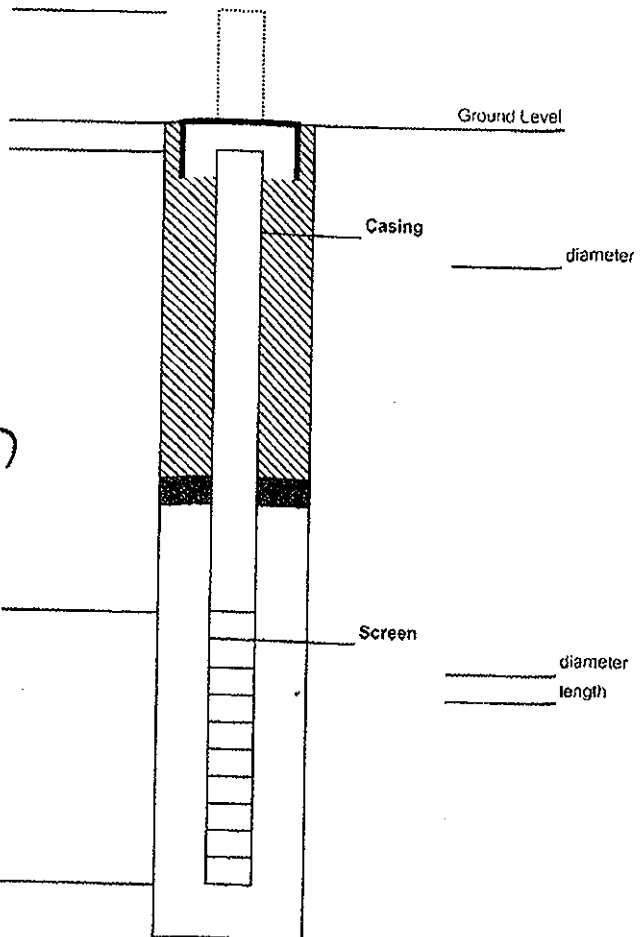
Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments: *(1) 15d rising 7
(2) 15d fall 8 u
(3) 15d rising 4'*

Results: _____

SLUG TEST FIELD FORM *H1MW-15I*

URS CORPORATION

Geologist: *Harshuman/Conner*

Project Name: _____

Project #: _____

Location: *Hempstead, NY*

Date & Time: *2/18/09 0730*

Well ID: *H1MW-15I*

Depth to Water: *25.42*

Depth to Bottom: _____

Length of Slug: *7' x 1.25" bailer (Rising)*
4' x 1" Slug (Fall + Rise)

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

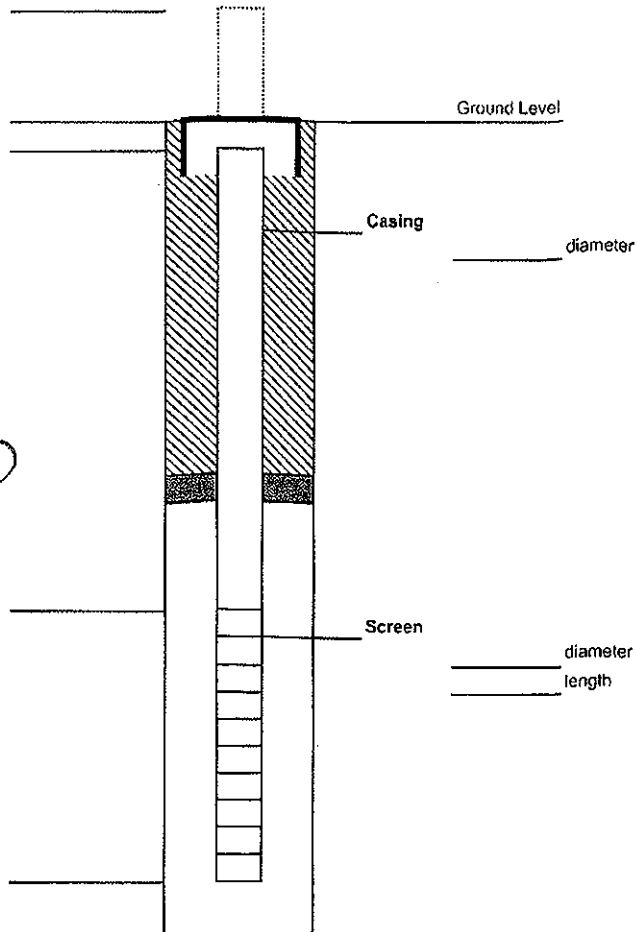
Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments: *① 15: rising 7'*
② 15: falling 4'
③ 15: rising 4'

Results: _____

SLUG TEST FIELD FORM *HMW-135*

URS CORPORATION

Geologist: _____

Project Name: _____

Project #: _____

Location: *Hempstead, NY*

Date & Time: *2/17/09 1620*

Well ID: *HMW-135*

Depth to Water: *31.15'*

Depth to Bottom: *49.20*

Length of Slug: *7' x 1.25" bailer (Rising)*
4' x 1" slug (Falling + Rising)

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
length

Comments: ① *135 rising 7'*
② *135 falling 4'*
③ *135 rising 4'*

Results: _____

SLUG TEST FIELD FORM *HMW-12S*

URS CORPORATION

Geologist: *Harshman/Cunier*

Project Name: _____

Project #: _____

Location: *Hempstead, NY*

Date & Time: *2/17/09*

Well ID: *HMW-12S*

Depth to Water: *17.91*

Depth to Bottom: _____

Length of Slug: *7' x 1.25" bailer (Rising)*
4' x 1" slug Falling + Rising

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

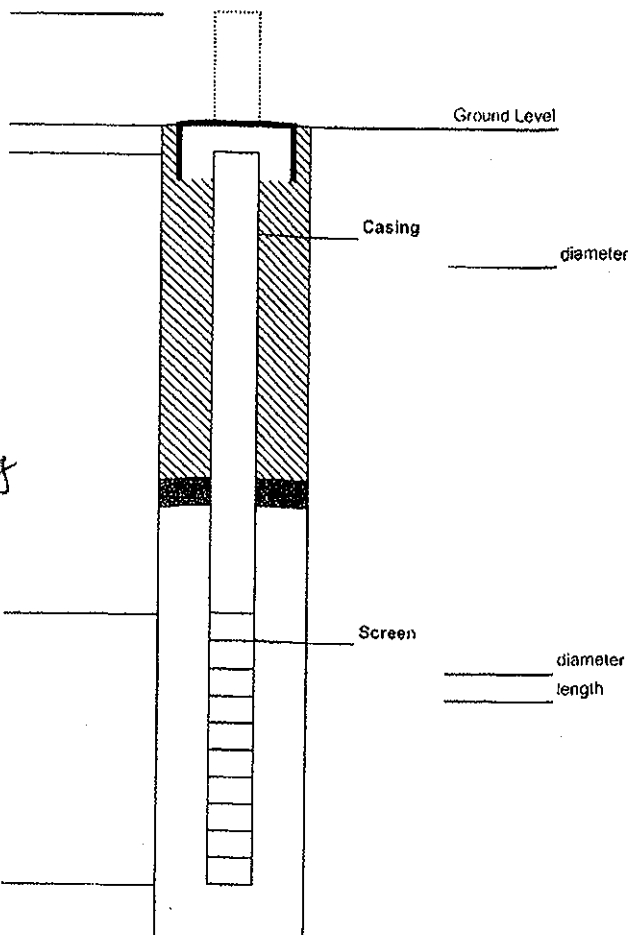
Initial Displacement: _____

Top of Riser
-If applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments: _____

Results: _____

SLUG TEST FIELD FORM *HMW-12D*

URS CORPORATION

Geologist: _____
 Project Name: _____
 Project #: _____
 Location: _____
 Date & Time: _____
 Well ID: *HMW-12D*
 Depth to Water: *19.57*
 Depth to Bottom: _____
 Length of Slug: _____
 Diameter of Slug: _____
 Volume of Slug: _____

Top of Riser
 -if applicable-
 (feet above
 ground level)

Ground Level
 Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
 length

SLUG IN (FALLING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

Comments:

- ① 12 d rising 7
- ② 12 falling 4
- ③ 12 d rising 4

Results:

SLUG TEST FIELD FORM *H1MW-3S*

URS CORPORATION

Geologist: _____

Project Name: _____

Project #: _____

Location: _____

Date & Time: *2/17/09 1400*

Well ID: *H1MW-3S*

Depth to Water: *19.06' PVC*

Depth to Bottom: _____

Length of Slug: _____

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter

length

Comments:

① 3 S rising 7
② 3 S falling 4
③ 3 S rising 4

Results:

SLUG TEST FIELD FORM *H1MW-3I*

URS CORPORATION

Geologist: *Harshman/Currier*

Project Name: _____

Project #: _____

Location: _____

Date & Time: *2/17/09 1300*

Well ID: *H1MW-3I*

Depth to Water: *19.34' PVC*

Depth to Bottom: _____

Length of Slug: *7' x 1.25" Bailer for Reg Rising Head*
4' x 1" Slug for Falling + Rising

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

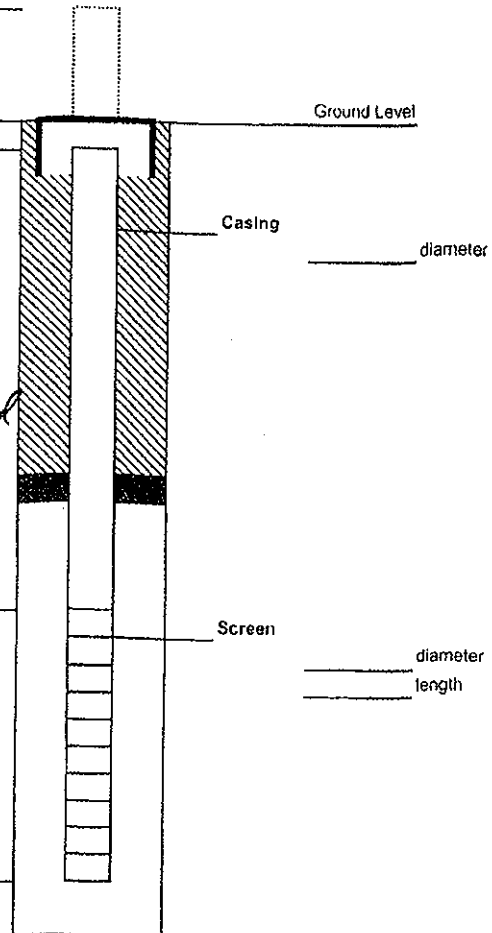
Initial Displacement: _____

Top of Riser
-If applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments: ① 3i rising 7
② 3i rising falling 4
③ 3i rising 4

changed test to 10 min due to slower recharge on prev round

Results: _____

SLUG TEST FIELD FORM

HIMW-3D

URS CORPORATION

Geologist: Harshman/Cervier

Project Name: National Grid

Project #: 11175065.00011

Location: Heapsstead, NY

Date & Time: 2/17/09 1230

Well ID: HIMW-3D

Depth to Water: 20.05' PVC

Depth to Bottom:

Length of Slug:

Diameter of Slug:

Volume of Slug:

SLUG IN (FALLING HEAD TEST)

Test Name:

Length of test:

Depth to static water level:

Initial Displacement:

SLUG OUT (RISING HEAD TEST)

Test Name:

Length of test:

Depth to static water level:

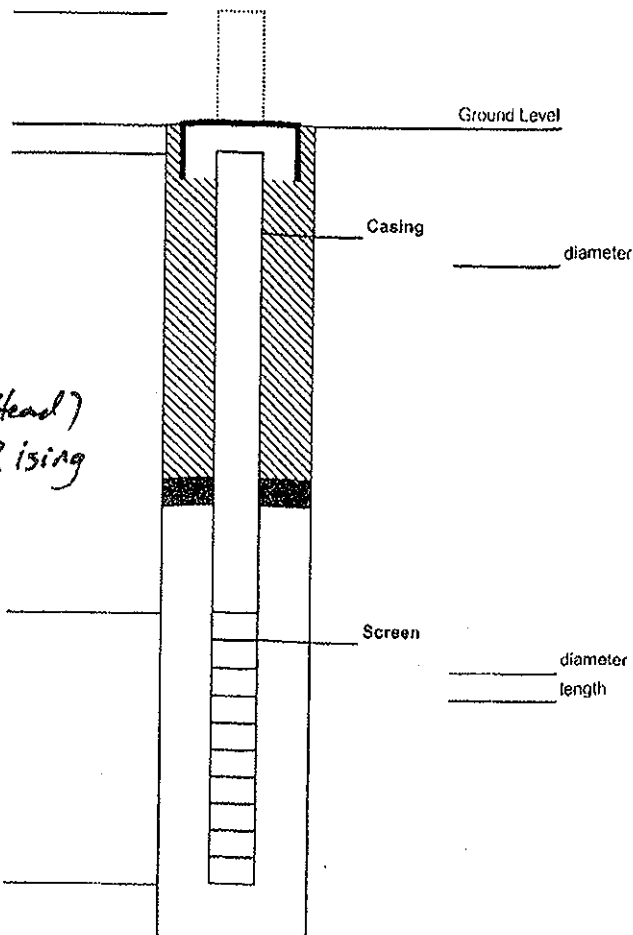
Initial Displacement:

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen



Comments:

1) 3d rising 7
(2) 3d falling 4
(3) 3d rising 4

Results:

SLUG TEST FIELD FORM *HMW-8S*

URS CORPORATION

Geologist: _____

Project Name: _____

Project #: _____

Location: _____

Date & Time: *2/17/09 1115*

Well ID: *HMW-8S*

Depth to Water: *20.18' PVC*

Depth to Bottom: _____

Length of Slug: *7' x 1.25" barrel*

Diameter of Slug: _____

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
length

Comments:

- ① *8S rise 7*
- ② *8S falling 4*
- ③ *8S rising 4*
Rise

Results:

SLUG TEST FIELD FORM *H1MW-8D*

URS CORPORATION

Geologist: _____

Project Name: _____

Project #: _____

Location: _____

Date & Time: *2/17/09*

Well ID: *H1MW-8D*

Depth to Water: *20.10'*

Depth to Bottom: _____

Length of Slug: _____

Diameter of Slug: *7' x 1.25" Bailor for Rising Head*
4' x 1" slug for Falling Head

Volume of Slug: _____

SLUG IN (FALLING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____

Length of test: _____

Depth to static water level: _____

Initial Displacement: _____

Top of Riser
-if applicable-
(feet above
ground level)

Ground Level
Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
length

Comments: *(1) 8d rise 7 (7' bailor)*
(2) 8d falling 4 (4' slug)
(3) 8d rise 4 (4' slug)

Results: _____

SLUG TEST FIELD FORM *H1MW-2D*

URS CORPORATION

Geologist: *Harshman/Carrier*
 Project Name: *National Grid Hempstead POT*
 Project #: *11175065.00011*
 Location: *Hempstead, NY*
 Date & Time: *2-17-09 1000*
 Well ID: *H1MW-2D*
 Depth to Water: *27.98' PVC*

Depth to Bottom: *NA*
 Length of Slug:
 Diameter of Slug:
 Volume of Slug:

SLUG IN (FALLING HEAD TEST)

Test Name:
 Length of test:
 Depth to static water level:
 Initial Displacement:

SLUG OUT (RISING HEAD TEST)

Test Name:
 Length of test:
 Depth to static water level:
 Initial Displacement:

Top of Riser
 -if applicable-
 (feet above
 ground level)

Ground Level
 Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter

length

Comments:

① 7' b.c. w.r (2.2 rise)

② 4' slug (2.2 falling)

③ 4' slug (2.2 rise)

Results:

SLUG TEST FIELD FORM

URS CORPORATION

Geologist: _____
 Project Name: _____
 Project #: _____
 Location: _____
 Date & Time: _____
 Well ID: HM3 W-2 I
 Depth to Water: 27.78
 Depth to Bottom: _____
 Length of Slug: _____
 Diameter of Slug: _____
 Volume of Slug: _____

Top of Riser
 -if applicable-
 (feet above
 ground level)

Ground Level
 Top of Riser

Top of Screen

Bottom of Screen

Ground Level

Casing

diameter

Screen

diameter
 length

SLUG IN (FALLING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

SLUG OUT (RISING HEAD TEST)

Test Name: _____
 Length of test: _____
 Depth to static water level: _____
 Initial Displacement: _____

Comments: 27.76 DM + 22.4 depth of transducer = 50.16' below pt

① 21rh ② 22 falling ③ 21rh
 7' below 1' below 4' below

Results: _____

APPENDIX E

GROUNDWATER PURGING/SAMPLING LOGS

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-100

Date: 11/19-21/09 Sampling Personnel: M. Dascoli Company: URS Corporation

Purging/
Sampling
Device: Discrete Groundwater Samples Tubing Type: _____ Pump/Tubing
Inlet
Location: _____

Measuring
Point: _____ Initial Depth
to Water: _____ Depth to
Well Bottom: _____ Well
Diameter: _____ Screen
Length: _____

Casing
Type: _____ Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters): _____

Sample ID: _____ Sample
Time: _____ QA/QC: Field Duplicate (70-74)

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
** = PAH & BTEX

Other Information: All sample intervals purged first, then sampled by intertial pumping.

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
*	7.35	12.78	0.644	0.00	4965	-77	Iron = 8.37	30-34
**	7.05	13.00	0.751	0.00	>4000	-77	Iron >29.7	40-44
*	6.83	15.84	0.541	0.00	1506	-35	MGP odor	50-54
**	7.23	13.93	0.630	0.00	>4000	-99		60-64
**	5.56	15.92	0.441	0.00	>1000	74		70-74
**	5.73	16.43	0.438	0.00	>1000	-16		80-84
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES—0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft;
4 inch diameter well = 2470 ml/ft (vol_{cy} = πr²h)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-101

Date: 11/20-21/08 Sampling Personnel: J. Hartman Company: URS Corporation

Purging/
Sampling
Device: Discrete Groundwater Samples Tubing Type: Pump/Tubing
Inlet
Location:

Measuring
Point: Initial Depth
to Water: Depth to
Well Bottom: Well
Diameter: Screen
Length:

Casing
Type: Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters):

Sample ID: Sample
Time: QA/QC:

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
** = PAH & BTEX

Other Information:

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
*	8.12	13.51	0.165	2.22	>1000	-88	Ferrous Fe: 1.87	30-34
**	7.34	14.50	0.655	2.14	>1000	-75	Ferrous Fe> 29.7	40-44
*	7.30	14.02	0.424	2.19	>1000	-24	Ferrous Fe> 29.7	50-54
**	7.45	13.99	0.382	N/A	>1000	-74		60-64
**	5.95	14.37	0.305	0.50	550	52		70-74
**	6.26	13.55	0.334	2.90	210	44		80-84
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES—0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft;
4 inch diameter well = 2470 ml/ft (vol_{cy} = $\pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-102
 Date: 12/1-2/08 Sampling Personnel: J. Harshman Company: URS Corporation

Purging/
Sampling
Device: Discrete Groundwater Samples Tubing Type: _____ Pump/Tubing
Inlet
Location: _____

Measuring
Point: _____ Initial Depth
to Water: _____ Depth to
Well Bottom: _____ Well
Diameter: _____ Screen
Length: _____

Casing
Type: _____ Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters): _____

Sample ID: _____ Sample
Time: _____ QA/QC: _____

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
 ** = PAH & BTEX

Other Information: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
*	6.08	17.03	0.449	0.00	>1000	-15	Ferrous Fe> 29.7	30-34
**	6.43	16.36	0.415	0.00	>1000	-75	Slight MGP odor	40-44
*	6.25	15.53	0.344	0.00	>1000	2	Ferrous Fe: 8.91	50-54
**	6.30	15.38	0.514	2.65	>1000	18		60-64
**	5.90	13.01	0.394	3.33	>1000	62		70-74
**	6.80	14.42	0.459	0.00	>1000	-127		80-84
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES—0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft;
 4 inch diameter well = 2470 ml/ft (vol_{wt} = $\pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-102-2
 Date: 1/7-8/09 Sampling Personnel: J. Harshman Company: URS Corporation

Purging/
Sampling
Device: Discrete Groundwater Samples Tubing Type: _____ Pump/Tubing
Inlet
Location: _____

Measuring
Point: _____ Initial Depth
to Water: _____ Depth to
Well Bottom: _____ Well
Diameter: _____ Screen
Length: _____

Casing
Type: _____ Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters): _____

Sample ID: _____ Sample
Time: _____ QA/QC: _____

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
 ** = PAH & BTEX

Other Information: _____

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
**	5.97	15.00	0.343	0.00	>4000	-173	No MGP odor	30-34
**	5.74	13.70	0.449	0.00	3747	-192	MGP odor	40-44
**	5.81	14.31	0.356	0.00	>4000	-118	MGP odor	50-54
**	6.08	13.32	0.470	0.00	>4000	-116	MGP odor	60-64
**	6.15	13.83	0.355	0.00	>4000	-60	No MGP odor	70-74
**	6.75	13.40	0.285	0.00	>4000	-76	No MGP odor	80-84
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 m/ft; 1 inch diameter well = 154 m/ft; 2 inch diameter well = 617 m/ft;
 4 inch diameter well = 2470 m/ft ($vol_{cy} = \pi r^2 h$)

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-103
 Date: 12/1-2/08 Sampling Personnel: M. Dascoli Company: URS Corporation

Purging/
Sampling
Device: Discrete Groundwater Samples Tubing Type: _____ Pump/Tubing
Inlet
Location: _____

Measuring
Point: _____ Initial Depth
to Water: _____ Depth to
Well Bottom: _____ Well
Diameter: _____ Screen
Length: _____

Casing
Type: Steel Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters): _____

Sample ID: _____ Sample
Time: _____ QA/QC: _____

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
 ** = PAH & BTEX

Other Information: All sample intervals purged first, then sampled by intertial pumping.

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
*	5.46	17.39	1.06	0.00	>1000	-52	Ferrous Fe:14.76	30-34
**	5.64	16.04	0.663	0.00	>1000	-11		40-44
*	5.77	16.65	0.423	0.00	2463	-33	Ferrous Fe>29.7	50-54
**	5.28	15.63	0.411	5.38	359	110		60-64
**	5.36	15.90	0.448	4.46	10,801	129		70-74
**	5.98	16.74	0.444	0.00	N/A	-89		80-84
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES—0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft;
 4 inch diameter well = 2470 ml/ft (vol_{wt} = $\pi r^2 h$)

PAGE: 1 of 1

Date: 9/24-25/08 **Sampling Personnel:** J. Harshman **Company:** URS Corporation

Casing Type:	Volume in 1 Well Casing (liters):	FALSE	Estimated Purge Volume (liters):
--------------	-----------------------------------	-------	----------------------------------

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
 ** = PAH & BTEX

Other Information:

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
*	6.31	20.57	0.200	7.08	>1000	15	Ferrous Fe> 3.3	30-34
**	6.81	18.50	0.464	6.30	>1000	-114	Ferrous Fe> 3.3	45-49
*	7.06	18.74	0.441	5.71	408	-96	Ferrous Fe> 3.3	55-59
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

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HISB-104

PAGE: 1 of 1

Other Information:

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HISB-105

LOW FLOW GROUNDWATER PURGING/SAMPLING LOG

PAGE: 1 of 1

Project: National Grid MGP PDI Site: Hempstead, NY Well I.D.: HISB-107

Date: 12/8-9/08 Sampling Personnel: J. Harshman Company: URS Corporation

Purging/
Sampling
Device: Retractable Sampler Tubing Type: Pump/Tubing
Inlet
Location:

Measuring
Point: Initial Depth
to Water: Depth to
Well Bottom: Well
Diameter: Screen
Length:

Casing
Type: Volume in 1
Well Casing
(liters): FALSE Estimated
Purge
Volume
(liters):

Sample ID: Sample
Time: QA/QC:

Sample Parameters: * = PAH, BTEX, Nitrate, Nitrite, Alkalinity, Phosphate
** = PAH & BTEX

Other Information:

PURGE PARAMETERS

TIME	pH	TEMP (°C)	COND. (mS/cm)	DISS. O ₂ (mg/l)	TURB. (NTU)	Eh (mV)	Notes	DEPTH OF SAMPLE (ft bgs)
**	5.75	13.44	0.407	0.00	>1000	57		30-34
**	6.04	14.46	0.514	0.00	>1000	-24	MGP odor	40-44
*	6.26	14.66	0.446	0.00	>1000	-30	Ferrous Fe>29.7 MGP odor	50-54
**	6.13	13.60	0.409	0.00	>1000	-12	Faint MGP odor	60-64
*	5.48	14.65	0.440	0.62	>1000	-1	Ferrous Fe: 26.01 Slight MGP odor	70-74
**	5.39	15.15	0.380	0.00	>1000	71	Faing MGP odor	80-84
**	6.14	14.33	0.476	0.00	>1000	-170	Faint MGP odor	90-94
Tolerance:	0.1	---	3%	10%	10%	+ or - 10	---	

Information: WATER VOLUMES--0.75 inch diameter well = 87 ml/ft; 1 inch diameter well = 154 ml/ft; 2 inch diameter well = 617 ml/ft;
4 inch diameter well = 2470 ml/ft (vol_{well} = $\pi r^2 h$)

PAGE: 1 of 1

PAGE: 1 of 1

PAGE: 1 of 1

Other Information:

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DGP-209

APPENDIX F

CAMP DATA SUMMARY

A summary of community air monitoring data collected during the investigation activities is provided in the attached tables. In most instances, the data collected during Site activities was below the Alert and Action Levels. Listed below is a summary of readings that were recorded above the Action Levels, a discussion of the cause of each, and the mitigation actions that were taken, if necessary.

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-201	9/24/08	Clear	N, Light	0.0	0.0	0.0	15.4	0.0	0.0	0.0	14.5	0.0	0.0	0.0	16.1	Hand clearing
	10/29/08	Mid- 40's. partly cloudy, rain at 11:20	W wind at variable intensity	0-2	0.0	0.0	70.1	0-1	0.0	0.0	82.0	0-1	0.0	0.0	72.4	Drilling
	10/30/08	Clear, 40 deg	Light N	0.0	0.0	0.0	3.8	0.0	0.1	0.0	48.1	0.0	0.0	0.0	6.1	Drilling, then grouting
DGP-202	9/24/08	Clear	NR	0.0	0.0	0.0	15.6	0.0	0.0	0.0	16.2	0.0	0.0	0.0	16.3	Hand clearing
	10/29/08	Early rain, sunny after 13:00	N winds at variable intensities	0-1	0.4	0.0	70.7	0.0	0.5	0.0	99.0	0.0	0.5	0.0	73.3	Drilling. DataRam suspended for first reading due to rain.
	10/30/08	NR	NR	0.0	0.0	0.0	6.5	0.0	0.0	0.0	3.8	0.0	0.0	0.0	6.1	Grouting.
DGP-203	9/23/2008	NR	NR	0	0.2	0	16.8	0	0.2	0	19.7	0	0.2	0	NR	Hand clearing. DW DataRam not functioning.
	10/25/08	Cloudy, humid, 50 -deg. Light rain from 8:40 tp 9:25.	N light winds in the morning shifting to stronger S winds.	0.0	0.2	0.0	76.1	0.0	0.2	0.0	60.1	0.0	0.1	0.0	40.0	Drilling.
	10/25/08	Rain, overcast 60 deg	S, strong	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Rain causes suspension of DataRam data collection while DGP-203 is beeing grouted.
DGP-204	9/25/08	NR	Light E	0.0	0.0	0.0	21.6	0.0	0.0	0.0	27.3	0.0	0.0	0.0	22.1	Hand clearing
DGP-205	9/23/08	NR	N light, mod. Gusts	0.0	0.2	0.0	18.8	0.0	0.1	0.0	18.9	0.0	0.1	0.0	11.2	Hand clearing to 5'. DataRam4 has lost power and is inoperable. No visible emissions noted. Same activities as previous hand clearing locations.
	10/25/08	Raining, Mid 50's	S, strong	0.0	0.2	0.0	NR	0.0	0.2	0.0	NR	0.0	0.2	0.0	NR	Rain causes suspension of DataRam data collection while DGP-205 is being grouted. VOC's may be effected by moisture.
	1/17/09	Sunny, very cold, 10's	N	0.0	0.0	0.0	31.1	0.0	0.0	0.0	58.3	0.0	0.0	0.0	46.3	Drilling (25'-30' interval only)
	1/18/09	Snow, Mid-20's	NW	0.0	0.0	0.0	55.1	0.0	0.0	0.0	52.2	0.0	0.0	0.0	61.2	Grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-206	9/23/08	NR	N, light-moderate	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Hand clearing to 5', DataRam not functioning properly
	10/26/09	sunny, breezy, low 50's	E winds, becoming calm towards late morning	0.0	0.0	0.0	42.6	0.0	0.0	0.0	25.8	0.0	0.0	0.0	17.1	Drilling
	10/26/08	NR	NR	0.0	0.0	0.0	7.1	0.0	0.0	0.0	6.9	0.0	0.0	0.0	8.2	Grouting, completed at 13:55 hrs.
DGP-207	9/23/08	NR	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Hand clearing
	10/26/08	sunny, high 50's/low 60's	N at variable intensity.	0-1	0.0	0.0	16.9	0-1	0.0	0.0	80.9	0-1	0.0	0.0	111.7	Drilling, then grouting
DGP-208	9/23/08	NR	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Hand clearing, DataRam not functioning properly.
	11/3/08	Partly cloudy, 50's	Light N	0.0	1.3	0.0	37.1	0.0	1.0	0.0	21.2	0.0	0.0	0.0	22.3	Drilling, then grouting
DGP-209	9/17/08		E, mod	0.0	0.0	0.0	12.3	0.0	0.0	0.0	13.3	0.0	0.0	0.0	12.9	Hand clearing
	11/7/08	Cloudy, Low 60's	Light S	0.0	0.0	0.0	11.3	0.0	0.0	0.0	12.4	0.0	0.0	0.0	11.6	Hand clearing
	11/11/08	Sunny, Mid-40's	Light E	0.0	0.0	0.0	61.1	0.0	0.0	0.0	59.0	0.0	0.0	0.0	68.9	Drilling
	11/12/08	Cloudy, high 40's	Moderate E	0.0	0.0	0.0	28.1	0.0	0.0	0.0	22.9	0.0	0.0	0.0	21.1	Drilling
	11/13/08	Cloudy, high 40's, Rain in afternoon	Moderate N	0.0	0.3	0.0	46.7	0.0	0.3	0.0	182.3	0.0	0.3	0.0	41.1	Drilling, DataRam suspended at 11:15 as rain begins to fall. Elevated readings attributed to rain, no corrective actions were necessary.
	11/14/08	Cloudy, Fog, 60's	Moderate W	0.0	0.0	0.0	46.9	0.0	0.0	0.0	57.6	0.0	0.0	0.0	52.1	Drilling, then grouting
DGP-210	9/17/09	Sunny, 70's	Moderate E	0.0	0.0	0.0	12.9	0.0	0.0	0.0	14.2	0.0	0.0	0.0	16.3	Hand clearing
DGP-211	9/17/08	Sunny, 70's	Moderate E	0.0	0.0	0.0	16.2	0.0	0.0	0.0	17.6	0.0	0.0	0.0	14.0	Hand clearing
	10/21/08	Sunny AM, Lt rain PM. 60's	NW, light	0.0	0.0	0.0	150.2	0.0	0.0	0.0	99.0	0.0	0.0	0.0	83.5	Drilling, then grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-212	9/19/08	Sunny 50's	Moderate E	0.0	0.0	0.0	16.3	0.0	0.0	0.0	17.9	0.0	0.0	0.0	15.7	Hand clearing to 5' (location moved from parking lot to LIRR ROW). Measurements taken during backfill of in EZ only.
	10/20/08	Clear, sunny 60's	Very light N	0.0	0.0	0.0	89.9	0.0	0.0	0.0	94.2	0.0	0.0	0.0	163.1	Drilling, then grouting. Data ram switched at 10:00.
DGP-213	9/18/08	Sunny, 60's	Light E	0.0	0.0	0.0	15.6	0.0	0.0	0.0	13.6	0.0	0.0	0.0	13.2	Hand clearing
	10/20/08	sunny, low 50's	N/ NE, light w/ strong gust early morning	0.0	0.2	0.0	16.8	0-1	0-0.2	0.0	48.4	0-1	0.0	0.0	180.9	Drilling, then grouting. At 14:05, Geoprobe exhaust affecting DW particulate reading. Not considered an Action Level exceedance because the activities were non-intrusive.
DGP-214	9/19/08	Sunny, 50's	Moderate E	0.0	0.0	0.0	15.6	0.0	0.0	0.0	12.7	0.0	0.0	0.0	16.2	Hand clearing
	10/17/08	clear skies, sunny, cool, high 50's	N, 8 mph, mod.	0.0	1.0	0.0	12.1	0.0	0.0	0.0	11.5	0.0	2.4	0.0	134.0	Drilling @ 10'-40', then grouting. PM ₁₀ Alert Limit exceedance at 9:55 as drilling stirs up dust in DW area. Activity stopped to rectify situation
DGP-215	9/24/08	Sunny, 60-70 degs	NE, very light	0.0	0.0	0.0	32.1	0.0	0.0	0.0	69.2	0.0	0.0	0.0	87.4	Hand clearing
	11/3/08	sunny, low 50's, clouds increase	Light E	0.0	0.0	0.0	59.8	0.0	0.0	0.0	183.7	0.0	0.0	0.0	98.5	Drilling, then grouting. PM ₁₀ EZ Alert Limit exceedance at 13:20 due to grout mixing. Not considered an Action Level exceedance because the activities were non-intrusive.
DGP-216	9/19/08	NR	Strong E	0.0	0.0	0.0	63.3	0.0	0.0	0.0	17.8	0.0	0.0	0.0	76.4	Hand clearing. Wind gusting from East causing large area of dust.
	10/15/08	NR	NR	0.0	0.0	0.0	45.3	0.0	0.0	0.0	63.4	0.0	0.0	0.0	47.2	Drilling
	10/16/08	Sunny, 70's, clouds moving in	Light W	0.0	0.3	0.0	86.0	0.0	0.7	0.0	67.7	0-1	1.1	0.0	66.1	Grouting
DGP-217	9/19/08	NR	Moderate E	0.0	0.0	0.0	14.1	0.0	0.0	0.0	13.2	0.0	0.0	0.0	13.1	Hand clearing
	10/16/08	Overcast, rain at 14:35-14:50	Variable W	0-1	0.7	0.0	105.5	0.0	1.1	0.0	102.1	0-1	0.7	0.0	125.6	Drilling

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes			
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4				
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³				
	10/17/08	clear, sunny, high 50's	Light N		0.0	0.1	0.0	43.5		0.0	0.1	0.0	62.5		0.0	0.1	0.0	31.3	Drilling, then grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-218	9/10/08	Sunny, Mid-70's	E	1.0	0.0	0.0	3.4	2.0	0.0	0.0	9.3	2.0	0.0	0.0	5.4	Hand clearing
	10/14/08	Partly cloudy	SE wind shifting to SW wind	0.0	0.0	0.0	37.7	0.0	0.0	0.0	89.1	0.0	0.0	0.0	57.7	Drilling.
	10/15/08	sunny, mid-60s	SE wind	0.0	0.0	0.0	18.2	0.0	0.0	0.0	36.8	0.0	0.0	0.0	29.3	Grouting
DGP-219	10/15/08	Sunny, mid-60's	NW wind shifting to SE	0-1	0.3	0.0	22.1	0-1	0.7	0.0	67.1	0-1	0.7	0.0	102.1	Hand clearing, drilling, then grouting.
DGP-220	9/18/08	Sunny, 60's	Light E	0.0	0.0	0.0	23.1	0.0	0.0	0.0	23.8	0.0	0.0	0.0	30.3	Hand clearing, odor detected during the hand clearing.
	10/12/08	Sunny, 50's	Increasing W winds, becoming a strong NE wind	0-1	0.0	0.0	46.0	0-1	0.7	0.0	19.0	0-1	0-0.3	0.0	52.6	Drilling, then grouting. Rain from 13:15-13:45. Gusty winds creating dust in parking lot at 14:30.
DGP-221	9/18/08	Sunny, 60's	Light E	0.0	0.0	0.0	14.4	0.0	0.0	0.0	12.5	0.0	0.0	0.0	19.5	Hand clearing
	10/23/08	Partly cloudy, 40 deg	E/NE winds at variable intensity	0-3	0.0	0.0	75.9	0-2	0.0	0.0	165.1	0.0	0.0	0.0	98.5	Hand clearing, drilling, then grouting.
DGP-222	9/16/08	Rain, Mid-60's	SE	0.0	0.0	0.0	6.1	0.0	0.0	0.0	5.8	0.0	0.0	0.0	8.4	Hand clearing
	10/21/08	sunny, 50's	W, light	0.0	0.0	0.0	15.9	0.0	0.0	0.0	17.3	0.0	0.0	0.0	28.3	Drilling
	10/21/08	NR	NR	0.0	0.0	0.0	1.9	0.0	0.0	0.0	2.8	0.0	0.0	0.0	7.8	Grouting to 40'. Finished grouting at 15:11.
DGP-223	9/16/08	Rain, Mid-60's	SE	0.0	0.0	0.0	13.1	0.0	0.0	0.0	45.3	0.0	0.0	0.0	49.9	Hand clearing
	10/24/08	Sunny, clear skies, 40's	N breeze, very light wind	0.0	0.0	0.0	42.6	0.0	0.1	0.0	69.1	0.0	0.0	0.0	26.6	Hand clearing, drilling, then grouting
DGP-224	9/16/08	Rain, Mid-60's	SE	0.0	0.0	0.0	9.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	31.5	Hand clearing
	10/22/08	Increasing clouds, 40's	Winds shifting N, to NE at variable intensity	0.0	0.0	0.0	11.0	0.0	0.0	0.0	62.0	0.0	0.0	0.0	37.1	Drilling, then grouting. Drilling ends at 11:30. Grouting ends at 15:00.
DGP-225	9/17/09	Sunnn, high 60's to low 70's	Light NE	0.0	0.0	0.0	15.7	0.0	0.0	0.0	15.7	0.0	0.0	0.0	20.4	Hand clearing

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4	MultiRae		DataRam4	MultiRae			DataRam4			
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-226	9/17/08	Sunny, 70's	Moderate S	0.0	0.0	0.0	13.6	0.0	0.0	0.0	13.2	0.0	0.0	0.0	13.4	Hand clearing
	10/22/08	clear, sunny, 40 deg	variable N winds	0.0	0.0	0.0	56.0	0.0	0.0	0.0	30.8	0.0	0.0	0.0	23.8	Drilling, then grouting
DGP-227	9/17/09	Sunny, 70's	Moderate S	0.0	0.0	0.0	18.2	0.0	0.0	0.0	12.9	0.0	0.0	0.0	13.9	Hand clearing
DGP-228	9/18/08	Sunny, 60's	Light E	0.0	0.0	0.0	16.7	0.0	0.0	0.0	16.1	0.0	0.0	0.0	12.2	Hand clearing
	10/22/08	dark clouds approaching 40's	Strong E winds	0.0	0.0	0.0	60.3	0.0	0.0	0.0	58.8	0.0	0.0	0.0	64.8	Drilling, then grouting. Gusty winds causing high DW concentrations.
DGP-229	9/18/08	Sunny, 60's	Light E	0.0	0.0	0.0	9.6	0.0	0.0	0.0	15.9	0.0	0.0	0.0	8.2	Hand clearing
DGP-230	9/25/08	NR	Light E/NE	0.0	0.0	0.0	16.5	0.0	0.0	0.0	30.7	0.0	0.0	0.0	20.5	Hand clearing
DGP-231	9/25/08	NR	Light E	0.0	0.0	0.0	28.1	0.0	0.0	0.0	23.9	0.0	0.0	0.0	43.1	Hand clearing
	11/5/08	Overcast, low 60's, Rain late	E, 5-10 mph	0.0	0.0	0.0	86.9	0.0	0.0	0.0	82.1	0.0	0.0	0.0	97.4	Drilling.
	11/7/08	Overcast, low 60's	Light NE	0-1	0.0	0.0	15.1	0-1	0.0	0.0	15.5	0-1	0.0	0.0	26.0	Grouting
DGP-232	9/25/08	NR	Light E	0.0	0.0	0.0	37.4	0.0	0.0	0.0	43.2	0.0	0.0	0.0	33.6	Hand clearing. First attempt encountered refusal, second try was sucessful.
DGP-233	9/12/08	Lt Rain, 60's	S	0.0	0.0	0.0	0.5	0.0	0.0	0.0	43.2	0.0	0.0	0.0	0.5	Hand clearing
	11/4/08	partly cloudy, high 50's.	Light S	0.0	0.0	0.0	28.4	0.0	0.0	0.0	79.8	0.0	0.0	0.0	36.2	Drilling, Geoprobe exhaust may affect EZ concentration.
	11/5/08	cloudy, 60's, humid, rain late	Moderate NE	0.0	0.3	0.0	70.5	0.0	0.2	0.0	66.4	0.0	0.1	0.0	75.8	Drilling, then grouting. DataRam monitoring suspended due to light rain.
DGP-234	9/25/08	Cloudy, 70's	S	0.0	0.0	0.0	25.0	0.0	0.0	0.0	33.9	0.0	0.0	0.0	12.7	Hand clearing
	11/6/08	light rain, upper 50's	Overcast, light rain, lo 50's	0.0	0.0	0.0	176.1	0.0	0.0	0.0	150.0	0.0	0.0	0.0	165.3	Drilling. Light rain may have caused elevated PM ₁₀ readings.
	11/7/08	NR	Overcast, low 60's	0-1	0.0	0.0	23.1	0-1	0.0	0.0	15.9	0-1	0.0	0.0	16.3	Grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-235	9/12/08	Cloudy, 70's	S	0.0	0.0	0.0	19.4	0.0	0.0	0.0	59.2	0.0	0.0	0.0	20.1	Hand clearing
	11/10/08	Sunny, Mid 40's	Moderate E	0.0	0.0	0.0	43.1	0.0	0.0	0.0	42.6	0.0	0.0	0.0	40.9	Drilling. DataRam reset at 10:20
					0.0	0.0	0.0	23.9	0.0	0.0	0.0	22.5	0.0	0.0	0.0	17.8
DGP-236	9/12/09	Cloudy, 70's	S	0.0	0.0	0.0	21.1	0.0	0.0	0.0	23.9	0.0	0.0	0.0	27.4	Handclearing
	11/4/08	Cloudy, Mid 60's	Light SW	0.0	0.0	0.0	35.2	0.0	0.0	0.0	60.1	0.0	0.0	0.0	40.6	Drilling
	11/5/08	Overcast, low 60's	NR	0.0	0.0	0.0	22.8	0.0	0.0	0.0	26.8	0.0	0.0	0.0	27.5	Grouting
DGP-237	9/12/08	Cloudy, 70's	S	0.0	0.0	0.0	25.0	0.0	0.0	0.0	23.1	0.0	0.0	0.0	50.1	Hand clearing
	11/4/08	Sunny, low 50's	Light SW	0.0	0.0	0.0	37.1	0.0	0.0	0.0	29.8	0.0	0.0	0.0	35.1	Drilling
	11/5/08	Overcast, low 60's	NR	0.0	0.0	0.0	30.9	0.0	0.0	0.0	23.7	0.0	0.0	0.0	71.6	Grouting. DW directly behind Geoprobe exhaust.
DGP-238	9/25/08	NR	NR	0.0	0.0	0.0	26.0	0.0	0.0	0.0	26.5	0.0	0.0	0.0	34.2	Hand clearing
	10/27/08	Clear, mid 40's - low 50's	S, light	0.0	0.0	0.0	62.2	0.0	0.0	0.0	67.4	0.0	0.0	0.0	59.2	Drilling
	10/28/08	cloudy, 40 deg. Rain at 10:10	W at moderate intensity	0.0	0.0	0.0	17.2	0.0	0.0	0.0	30.9	0.0	0.0	0.0	37.9	Drilling, then grouting. Rain prevents use of the CAMP equipment for upwind and downwind readings from 8:45 to 10:30.
DGP-239	9/12/08	Cloudy, 70's	S	0.0	0.0	0.0	33.2	0.0	0.0	0.0	25.2	0.0	0.0	0.0	36.6	Hand Clearing
	11/8/08	sunny, 45 deg, clear	Moderate NW	0.0	0.0	0.0	23.5	0.0	0.0	0.0	67.3	0.0	0.0	0.0	24.1	Drilling, then grouting. DW concentration not recorded because fence is obstructing DW location.
DGP-240	9/12/08	cloudy, 70's,	NR	NR	NR	NR	14.9	0.0	0.0	0.0	8.4	0.0	0.0	0.0	13.2	Hand clearing
	11/6/08	Light rain, Low-50's	NR	0-1	17.7	0.0	30.1	0-1	20.1	0.0	15.8	0-1	20.3	0.0	15.7	Drilling. High VOC readings attributed to interference from rain, fresh air calibration performed away from site. DataRam suspended at 10:40-10:55
	11/7/08	Overcast, Low 60's	Light N	0-1	0.2	0.0	29.1	0-1	0-1	0.0	19.9	0-1	0.2	0.0	19.3	Drilling, then grouting
DGP-241	11/26/08	sunny, low 40's	Moderate WNW	0.0	0.1	0.0	32.7	0.0	0.0	0.0	53.8	0-1	0.0	0.0	101.2	Drilling, then grouting

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Pre-Design Investigation Report
Hempstead Former MGP Site

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TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes			
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4				
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³				
DGP-242	11/7/08	Cloudy, low 60's	Light S		0.0	0.0	0.0	13.2		0.0	0.0	0.0	14.1		0.0	0.0	0.0	12.9	Hand clearing.
	11/24/08	Sunny, Low 40's	NR		0.0	0.0	0.0	28.0		0.0	0.0	0.0	35.0		0.0	0.0	0.0	40.2	Drilling
DGP-243	11/12/08	Sunny, 40's	N, light		0.0	0.0	0.0	15.0		0.0	0.0	0.0	9.8		0.0	0.0	0.0	45.7	Hand clearing
	11/25/08	Rain, then cloudy	W		0.0	0.3	0.0	48.5		0-1	0.3	0.0	33.0		0.0	0.4	0.0	16.6	Drilling, then grouting. DataRam not used in the morning due to rain.
DGP-244	9/29/08	Sunny	Light E		0.0	0.0	0.0	39.2		0.0	0.0	0.0	62.3		0.0	0.0	0.0	37.9	Drilling, then grouting
DGP-245	9/11/08	NR	N, Light		0.0	1.3	0.0	22.7		0.0	1.8	0.0	29.9		0.0	1.1	0.0	21.1	Hand clearing
	9/29/08	NR	Moderate N		0.0	0.0	0.0	7.9		0.0	0.0	0.0	9.9		0.0	0.0	0.0	18.4	Drilling, DNAPL odor at 20'.
	9/30/08	Overcast, 60's	Light N		0.0	0.0	0.0	51.4		0.0	0.0	0.0	68.6		0.0	0.0	0.0	51.5	Drilling, rods stuck in borhole, vacuum truck is used to recover rods.
	10/1/08	Partly cloudy, mid 60's	Light S		0.0	0.0	0.0	92.4		0.0	0.0	0.0	248.2		0.0	0.0	0.0	105.2	Drilling, Entact employee is operating a Caterpillar nearby that is causing the high dust concentrations. Not considered an Action Level exceedance because the activities were non-intrusive.
	10/3/08	Partly cloudy, high 50's	Light to moderate W		0.0	0.0	0.0	80.2		0.0	0.0	0.0	81.3		0.0	0.0	0.0	68.4	Grouting
	9/15/08	Clear 70's	NW		0.0	0.0	0.0	0.2		0.0	0.0	0.0	0.2		0.0	0.0	0.0	0.0	Hand clearing
DGP-246	10/14/08	partly cloudy, chance of T-storms, humid, 60 degrees	S, light to mod		0.0	0.0	0.0	NR		0.0	0.0	0.0	159.6		0.0	0.0	0.0	276.4	Drilling. At 8:45, High PM10 concentrations are attributed to a faulty instrument, which was replaced
					1.0	1.0	0.0	43.0		1.0	0.3	0.0	62.8		0.0	0.0	0.0	45.6	Drilling. At 10:15, EZ and UP HCN is flashing 1 and VOC is flashing 0.3 for both locations, no explanation noted. At 11:45, tractor trailer drove through site stirring up dust at EZ and DW locations
	10/15/08	sunny, clear, 69 deg	N, 4.4 mph		0.0	0.0	0.0	42.3		0.0	0.0	0.0	50.9		0.0	0.0	0.0	33.1	Drilling
	10/16/08	Cloudy, 55 Degr	Moderate SW wind		0-1	1.1	0.0	101.0		0.0	1.5	0.0	127.5		0-1	1.5	0.0	106.6	Drilling, then grouting. Nearby trucks cause spikes in dust concentrations.

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Pre-Design Investigation Report
Hempstead Former MGP Site

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TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind Direction/ Strength	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-247	9/11/08	NR	NR	0.0	0.9	0.0	9.9	0.0	0.9	0.0	22.4	0.0	0.9	0.0	8.7	Hand clearing
	10/1/08	Partly cloudy, 60's	Light W	0.0	0.0	0.0	86.6	0.0	0.0	0.0	85.8	0.0	0.0	0.0	76.9	Drilling. Entact is operating a Mini-CAT, which may lead to the high dust concentrations.
	10/2/08	Sunny, 50's	Moderate NW	0.0	0.0	0.0	63.4	0.0	0.0	0.0	75.7	0.0	0.0	0.0	28.7	Drilling, then grouting
DGP-248	9/11/08	NR	NR	0.0	0.9	0.0	13.0	0.0	1.1	0.0	12.7	0.0	0.9	0.0	7.7	Hand clearing
	9/26/08	Raining, low 60's	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Hand clearing. DataRam not used due to rain.
	10/6/08	Overcast, high 50's	Light N	0-1	0.0	0.0	61.1	0-1	0.0	0.0	51.3	0-1	0.0	0.0	65.2	Drilling, then grouting. Location is close to where Entact is excavating.
	10/7/08	clear, sunny, 45 degrees	N	0.0	0.0	0.0	4.5	0.0	0.0	0.0	4.7	0.0	0.0	0.0	2.8	Drilling down to 70' to grout
				0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	5.1	Drilling down to 70' to grout. Entact water truck on site performing dust control.
				0.0	0.0	0.0	15.7	0.0	0.0	0.0	3.6	0.0	0.0	0.0	12.6	Grouting. Caterpillar raising dust upwind of location.
				0.0	0.0	0.0	42.4	0.0	0.0	0.0	20.9	0.0	0.0	0.0	7.2	Grouting. Entact building sprung structure upwind of our location.
DGP-249	9/15/08	Clear, 70's	NW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	Hand clearing
	10/7/08	sunny, clear, mid 60's	N, slight to gusty	0.0	0.0	0.0	35.8	0.0	0.0	0.0	121.0	0.0	0.0	0.0	74.0	Drilling. At 14:30, 2 mini CATs near EZ creating dust.
	10/8/08	sunny, clear, 60's warming to the 70's.	N changing to W at 9:45	0.0	0.0	0.0	42.3	0.0	0.0	0.0	32.5	0.0	0.0	0.0	67.7	Drilling and grouting.
DGP-250	9/15/08	Sunny, 70's	NW	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.5	0.0	0.0	0.0	7.5	Hand clearing
	10/8/08	Sunny, low 60's, Decreasing cloudiness	Generally light S-SW	0-1	0.0	0.0	88.5	0.0	0.0	0.0	93.3	0.0	0.0	0.0	95.1	Drilling, Workers operating a bulldozer nearby may be the reason for the minor spikes in dust concentrations.
	10/9/08	overcast, low 60's, high humidity	WSW	0.0	0.6	0.0	99.1	0.0	0.0	0.0	99.9	0.0	0.7	0.0	137.6	Grouting. Dry grout in air, and high humidity may lead to the high readings.

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Pre-Design Investigation Report
Hempstead Former MGP Site

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TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4	MultiRae		DataRam4	MultiRae		DataRam4				
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-251	9/10/08	Sunny, Mid-70's	W	3.0	0.0	0.0	15.4	3.0	0.0	0.0	15.4	1.0	0.0	0.0	15.3	Hand clearing. No explanation for HCN readings.
	10/13/08	Partly cloudy, Mid-60's	N	0.0	0.0	0.0	26.1	0.0	0.0	0.0	19.2	0.0	0.0	0.0	19.8	Hand clearing 5 refusals at shallow depths.
	12/3/08	Sunny, Mid-30's	W	0.0	0.0	0.0	62.5	0.0	0.0	0.0	62.2	0.0	0.0	0.0	60.1	Drilling
	12/29/08	Cool, Sunny	N	0.0	0.0	0.0	36.1	0.0	0.0	0.0	73.2	0.0	0.0	0.0	32.4	Drilling
	12/31/08	Lt. Sleet, Cold	NR	0.0	0.0	0.0	21.9	0.0	0.0	0.0	19.6	0.0	0.0	0.0	15.6	Grouting
DGP-252	9/15/08	Cloudy, 70's	S	3.0	0.0	0.0	0.0	4.0	0.0	0.0	2.3	3.0	0.0	0.0	0.0	Hand clearing
	10/9/08		W, 7.5 mph	0.0	0.0	0.0	62.2	0.0	0.0	0.0	62.7	0.0	0.0	0.0	62.9	Drilling
	10/10/08	sunny, clear, 60's, humid	NW to N to NNW, light	0.0	2.1	0.0	83.1	0-1	0.3	0.0	78.1	0-1	0.0	0.0	59.4	Drilling, then grouting.
DGP-253	9/15/08	Cloudy, 70's	S	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	Hand clearing
	10/9/08	overcast, low 60's, high humidity	W, shifting to W-SW	0.0	0.0	0.0	185.7	0-1	0.0	0.0	179.6	0.0	0.0	0.0	181.1	Drilling. No explanation for high particulate concentrations.
	10/10/08	sunny, 60 degrees, calm	N	0.0	0.0	0.0	51.0	0.0	0.0	0.0	48.1	0.0	0.0	0.0	21.7	Drilling. Dust may be effected by large trucks passing by.
	10/10/08	sunny, 60 degrees, calm	N	0.0	0.0	0.0	32.4	0.0	0.0	0.0	31.4	0.0	0.0	0.0	22.2	Grouting

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TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-254	9/16/08	Cloudy, mid 60's	SE	0.0	0.4	0.0	25.8	0.0	0.0	0.0	13.7	0.0	0.0	0.0	25.0	Hand clearing
	10/10/08	sunny, 60 degrees, calm	N	0.0	0.0	0.0	51.7	0.0	0.0	0.0	13.9	0.0	0.0	0.0	54.4	Drilling. High dust concentrations due to a truck on site picking up the roll-off dumpster.
	10/13/08	Partly cloudy, Mid-60's	Very light W, shifting to N	0.0	0.0	0.0	75.7	0.0	0.0	0.0	65.6	0.0	0.0	0.0	114.0	Drilling, then grouting. Dust concentrations kept to a minimum as area is sprayed with water. Spikes in dust concentrations affected by truck nearby.
DGP-255	9/12/08	Cloudy	S, light	0.0	0.2	0.0	21.1	0.0	0.4	0.0	45.3	0.0	0.2	0.0	17.9	Hand clearing
	10/9/08	grey skies, high chance of T-storms, humid, 60's	variable from W	0.0	0.0	0.0	87.4	0.0	0.0	0.0	72.5	0.0	0.0	0.0	73.4	Drilling and grouting
DGP-256	10/31/08		Light N	0.0	0.0	0.0	36.7	0-1	0.3	0.0	45.9	0.0	0.3	0.0	49.7	Hand clearing to 5'.
	11/3/08	cloudy, mid 40's, damp. Sunny later on	E light to moderate	0.0	0.1	0.0	59.6	0.0	0.1	0.0	57.7	0.0	0.1	0.0	37.7	Drilling
	1/20/09	Cool, clear		0.0	0.0	0.0	14.2	0.0	0.0	0.0	20.7	0.0	0.0	0.0	11.7	Grouting
DGP-257	11/7/08	Cloudy, Low 60's	Light S	0.0	0.0	0.0	14.2	0.0	0.0	0.0	15.2	0.0	0.0	0.0	12.9	Hand clearing
	11/18/08	Sunny, Mid - 30's	Strong N	0.0	0.0	0.0	12.4	0.0	0.0	0.0	14.1	0.0	0.0	0.0	10.7	Drilling
	11/20/08	Cloudy, low 30's	Moderate N	0.0	0.0	0.0	36.6	0.0	0.0	0.0	57.4	0.0	0.0	0.0	36.1	Drilling
	11/21/08	Overcast, High 20's	Moderate N	0.0	0.0	0.0	13.4	0.0	0.0	0.0	43.4	0.0	0.0	0.0	13.3	Grouting
DGP--258	11/17/08	Sunny, 35-45 degs	Moderate to strong W	0.0	0.0	0.0	157.8	0.0	0.0	0.0	204.1	0.0	0.0	0.0	165.5	Hand clear, then drilling
DGP-259	11/18/08	Overcast, 30's	NE, 5-15 mph	0-1	0.0	0.0	9.4	0-1	0.0	0.0	11.8	0-1	0.0	0.0	21.2	Hand clearing, then drilling
	11/21/08	Overcast, Hi-20's	NR	0.0	0.0	0.0	10.6	0.0	0.0	0.0	66.8	0.0	0.0	0.0	44.1	Grouting
DGP-260	12/3/08	Sunny, Low 40's	Light N	0.0	0.0	0.0	130.0	0.0	0.0	0.0	75.3	0.0	0.0	0.0	58.7	Drilling, then grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
			Direction/ Strength	MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-261	11/7/08	Cloudy, Low 60's	Moderate S	0.0	0.3	0.0	11.9	0.0	0.3	0.0	12.5	0.0	0.3	0.0	11.1	Hand clearing
	11/11/08	sunny, 40's	Moderate W	0.0	0.0	0.0	19.6	0.0	0.0	0.0	60.4	0.0	0.0	0.0	32.7	Drilling
	11/14/08	overcast, very humid, high 50's	Light W	0.0	0.0	0.0	69.0	0.0	0.4	0.0	47.4	0.0	0.4	0.0	79.0	Grouting. Spikes in VOC's caused by paint fumes from nearby auto body shop.
DGP-262	11/12/08	Increasing clouds, High 30's	Moderate W	0.0	0.0	0.0	21.0	0.0	0.0	0.0	78.0	0.0	0.0	0.0	30.4	Drilling.
	11/14/08		Light W	0.0	0.4	0.0	88.9	0.0	0.4	0.0	93.0	0.0	0.8	0.0	83.2	Grouting. Strong sent of paint from nearby building.
DGP-263	11/12/08	partly sunny, 50's	Moderate W	0.0	0.0	0.0	10.2	0.0	0.0	0.0	31.4	0.0	0.0	0.0	13.1	Drilling
	11/13/08	dark cloudy skies, light rain, 40's	Light S-SW	2.0	3.4	0.0	84.0	2.0	3.0	0.0	50.4	2.0	3.1	0.0	38.1	Drilling. Spikes in VOC's may be due to humidity and paint fumes from nearby auto shop. DataRam truned off at 11:45 due to rain.
	11/14/08	Early rain	Light W	0.0	1.7	0.0	33.0	0.0	1.7	0.0	16.4	0.0	1.7	0.0	36.5	Grouting
DGP-264	12/30/08	Sunny, cold	S	0.0	0.0	0.0	21.4	0.0	0.0	0.0	18.7	0.0	0.0	0.0	20.8	Hand clearing, then drilling
	12/31/08	Cold. Lt sleet	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Grouting (snow too heavy for DataRam)
DGP-265	1/5/09	Cool, Cloudy,	Moderate S	0.0	0.0	0.0	81.7	0.0	0.0	0.0	85.6	0.0	0.0	0.0	87.6	Hand clearing, then drilling
	1/20/09	Cool, clear	NR	0.0	0.0	0.0	14.2	0.0	0.0	0.0	11.7	0.0	0.0	0.0	20.7	Grouting
DGP-266	1/5/09	Cool, Cloudy,	Moderate N	0.0	0.0	0.0	45.8	0.0	0.0	0.0	38.1	0.0	0.0	0.0	49.6	Hand clearing, then drilling
	1/6/09	Cloudy, Mid 20's	NR	0.0	0.0	0.0	28.4	0.0	0.0	0.0	35.6	0.0	0.0	0.0	47.6	Drilling
	1/8/09	Sunny, High 30's	NR	0.0	0.0	0.0	12.1	0.0	0.0	0.0	14.9	0.0	0.0	0.0	13.7	Grouting
DGP-267	1/12/09	Cold, Sunny	Moderate W	0.0	0.0	0.0	64.1	0.0	0.0	0.0	59.1	0.0	0.0	0.0	56.2	Hand clearing, then drilling

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-268	1/6/09	Cloudy, mid 20's	N	0.0	0.0	0.0	28.4	0.0	0.0	0.0	35.6	0.0	0.0	0.0	36.8	Hand clearing, then drilling
	1/7/09	Rain, mid-30's	Moderate W	NR	NR	NR	NR	0.0	0.0	0.0	NR	NR	NR	NR	NR	Drilling. No downwind and upwind readings, as well as any use of the DataRam due to rain.
	1/8/09	Sunny, High 30's	NR	0.0	0.0	0.0	11.1	0.0	0.0	0.0	27.6	0.0	0.0	0.0	19.6	Drilling, then grouting
DGP-269	1/8/09	Sunny, high 30's	Moderate E	0.0	0.0	0.0	13.2	0.0	0.0	0.0	19.6	0.0	0.0	0.0	17.3	Hand clearing
	1/9/09	Sunny, mid-30's	Moderate NE	0.0	0.5	0.0	4.4	0.0	1.6	0.0	19.6	0.0	0.5	0.0	8.6	Drilling
DGP-270	1/9/09	Cold, sunny	Moderate NW	0.0	0.1	0.0	22.5	0.0	0.1	0.0	23.5	0.0	0.1	0.0	37.5	Hand clearing, the grouting
	1/13/09	Cold, cloudy	Moderate S	0.0	0.0	0.0	19.1	0.0	0.0	0.0	15.0	0.0	0.0	0.0	11.6	Grouting
DGP-271	1/12/09	Cold, sunny, windy	Strong W	0.0	0.4	0.0	25.6	0.0	1.3	0.0	30.7	0.0	0.0	0.0	54.1	Hand clearing, then drilling
	1/13/09	Cool, mid-30's, Cloudy	NR	0.0	0.0	0.0	31.2	0.0	0.0	0.0	26.9	0.0	0.0	0.0	28.1	Grouting
DGP-272	1/12/09	Cold, sunny	NR	0.0	0.0	0.0	10.6	0.0	0.0	0.0	17.9	0.0	0.0	0.0	13.0	Hand clearing
	1/14/09	Sunny, low 20's	NR	0.0	0.0	0.0	14.5	0.0	0.0	0.0	43.5	0.0	0.0	0.0	19.6	Drilling
	1/16/09	Very cold, sunny	Moderate N	0.0	0.0	0.0	10.3	0.0	0.0	0.0	25.9	0.0	0.0	0.0	19.9	Drilling, MultiRae out of order at 10:15
DGP-273	1/13/08	Cool, cloudy	NR	0.0	0.0	0.0	68.5	0.0	0.0	0.0	121.6	0.0	0.0	0.0	92.3	Hand clearing, drilling, then grouting
DGP-274	1/13/09	Partly cloudy, Mid 30's	NR	0.0	0.0	0.0	112.1	0.0	0.0	0.0	116.7	0.0	0.0	0.0	121.4	Hand clearing, drilling, then grouting
DGP -275	1/8/09	Clear, Cold	NR	0.0	0.0	0.0	68.1	0.0	0.0	0.0	45.7	0.0	0.0	0.0	29.0	Hand clearing
	1/16/09	Clear, teens	N	0.0	0.0	0.0	27.9	0.0	0.0	0.0	30.1	0.0	0.0	0.0	23.9	Drilling, then grouting
DGP-276	1/18/09	Snowing, Cold, 20's	NR	0.0	0.0	0.0	27.0	0.0	0.0	0.0	43.9	0.0	0.0	0.0	65.9	Drilling, then grouting
DGP-277	1/17/09	NR	NR	0.0	0.0	0.0	20.1	0.0	0.0	0.0	87.7	0.0	0.0	0.0	53.2	Hand clearing, drilling, then grouting.
DGP-278	1/17/09	NR	NR	0.0	0.0	0.0	51.2	0.0	0.0	0.0	50.7	0.0	0.0	0.0	40.1	Hand clearing, drilling, then grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4		MultiRae		DataRam4		MultiRae		DataRam4		
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
DGP-279	1/16/08	Cold, Sunny	NW	0.0	0.0	0.0	22.6	0.0	0.0	0.0	19.7	0.0	0.0	0.0	23.0	Hand clearing, drilling, then grouting
DGP-280	1/17/09	Sunny, low 10's	Moderate N	0.0	0.0	0.0	19.7	0.0	0.0	0.0	62.0	0.0	0.0	0.0	28.9	Drilling
DGP-281	1/26/09			0.0	0.0	0.0	31.2	0.0	0.0	0.0	29.2	0.0	0.0	0.0	40.9	Hand clearing, then drilling
DGP-282	1/27/09	Cool, overcast, 30's	NW	0.0	0.0	0.0	10.6	0.0	0.0	0.0	11.4	0.0	0.0	0.0	19.4	Drilling, then grouting
DGP-283	1/27/09	Cool, oercast. 30's	NR	0.0	0.0	0.0	12.4	0.0	0.0	0.0	11.4	0.0	0.0	0.0	19.4	Drilling
HISB-100	9/23/08		Light NE	0.0	0.1	0.0	6.1	0.0	0.1	0.0	13.2	0.0	0.2	0.0	7.1	Hand cleating. New DataRam replaces unit that wasn't operating properly.
	11/19/08	Sunny, Mid-30's	Moderate NE	0.0	0.0	0.0	3.8	0.0	0.0	0.0	5.4	0.0	0.0	0.0	6.1	Drilling
	11/21/08	Overcast, Hi-20's	Moderate N	0.0	0.8	0.0	36.1	0.0	1.8	0.0	42.1	0.0	0.9	0.0	38.0	Drilling, then grouting
HISB-101	9/24/08	Sunny, 60's	Very light S	0.0	0.0	0.0	13.5	0.0	0.0	0.0	13.0	0.0	0.0	0.0	12.4	Hand clearing
	11/19/08	NR	NR	0.0	0.3	0.0	25.2	0.0	1.0	0.0	25.1	0.0	0.0	0.0	15.8	Drilling
	11/20/08	cold, cloudy, flurries, 30 deg	NR	0.0	0.0	0.0	14.6	0.0	0.1	0.0	11.7	0.0	0.3	0.0	17.8	Drilling. VOC readings affected by paint shop across the street.
	11/21/08	Overcast, Hi-20's	Moderate N	0.0	0.0	0.0	12.8	0.0	0.0	0.0	20.1	0.0	0.0	0.0	63.3	Drilling, then grouting

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae		DataRam4	MultiRae		DataRam4	MultiRae		DataRam4				
			Direction/ Strength	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
HISB-102	9/24/08	NR	Light S/SE	0.0	0.0	0.0	22.1	0.0	0.0	0.0	13.8	0.0	0.0	0.0	16.6	Hand clearing
	12/1/08	NR	NR	0.0	0.0	0.0	45.6	0.0	0.0	0.0	46.2	0.0	0.0	0.0	51.3	Drilling
	12/2/08	Sunny, Mid 40's	Moderate E	0.0	0.0	0.0	28.0	0.0	0.0	0.0	35.0	0.0	0.0	0.0	40.2	Drilling
	12/3/08	Sunny, Mid 30's	Moderate W	0.0	0.0	0.0	49.9	0.0	0.0	0.0	57.1	0.0	0.0	0.0	55.6	Grouting
	12/3/08	Sunny, Mid 30's	Moderate W	0.0	0.0	0.0	49.9	0.0	0.0	0.0	57.1	0.0	0.0	0.0	55.6	Hand clearing
	12/12/08	Cloudy, high 50's	Moderate W	0.0	0.0	0.0	28.7	0.0	0.0	0.0	30.4	0.0	0.0	0.0	30.9	Drilling, drillers lose rods down borehole at 9:40, rest of the day is spend trying to retrieve the rods.
	12/15/08	warm, 50's cloudy	NR	0.0	0.0	0.0	112.6	0.0	0.0	0.0	117.6	0.0	0.0	0.0	128.6	Drilling
	12/16/08	Snow, Mid - 30's	NR	0.0	0.6	0.0	71.9	0.0	0.9	0.0	66.1	0.0	0.0	0.0	68.1	Drilling
	1/6/09	Cold, cloudy, windy	Moderate W	0.0	0.0	0.0	41.8	0.0	0.0	0.0	18.4	0.0	0.0	0.0	29.9	Drilling, groundwater sampling
	1/7/09	Rainy, cold		NR	NR	NR	NR	0.0	0.0	0.0	NR	NR	NR	NR	NR	Drilling, groundwater sampling. Rain prevents full use of CAMP equipment.
1/8/09	Sunny, Mid 30's	Moderate W	0.0	0.0	0.0	58.3	0.0	0.0	0.0	78.1	0.0	0.0	0.0	55.2	Drilling, then grouting	
HISB-103	9/24/08	NR	Very light E	0.0	0.0	0.0	30.7	0.0	0.0	0.0	21.0	0.0	0.0	0.0	25.1	Hand clearing
	12/1/08	windy, high 40's, sunny	NR	0.0	1.6	0.0	22.6	0.0	1.6	0.0	16.9	0.0	1.0	0.0	38.9	Drilling
	12/2/08	Sunny, Mid-40's	Moderate E	0.0	1.3	0.0	20.2	0.0	1.8	0.0	20.7	0.0	0.9	0.0	25.6	Drilling, then grouting.
HISB-104	9/22/08		E	0.0	0.0	0.0	34.5	0.0	0.0	0.0	43.5	0.0	0.0	0.0	38.6	Hand clearing
	9/24/08	Sunny, HI-50's	E	0.0	0.0	0.0	22.4	0.0	0.0	0.0	22.2	0.0	0.0	0.0	22.2	Drilling
	9/25/08	Coudy, HI-50's	E	0.0	0.0	0.0	59.2	0.0	0.0	0.0	122.7	0.0	0.0	0.0	74.7	Drilling, then grouting.

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

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TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes			
			Direction/ Strength	MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4				
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³				
HISB-105	9/23/08	NR	ENE		0.0	0.3	0.0	50.0		0.0	0.3	0.0	34.5		0.0	0.3	0.0	61.4	Hand clearing
	12/4/08	Cold, Windy, Sunny			0.0	0.2	0.0	46.7		0.0	0.2	0.0	79.2		0.0	0.2	0.0	42.1	Drilling
	12/5/08	Cold and sunny	Moderate N		0.0	0.0	0.0	20.9		0.0	0.0	0.0	33.2		0.0	0.0	0.0	28.2	Drilling
	12/17/08	Lt Rain, mid 30's	Moderate W		0.0	0.0	0.0	197.6		0.0	0.0	0.0	180.0		0.0	0.0	0.0	181.1	Drilling. Elevated PM ₁₀ readings attributed to rain
	12/18/08	Cold, Overcast	Moderate W		0.0	0.0	0.0	68.1		0.0	0.0	0.0	60.3		0.0	0.0	0.0	62.8	Drilling at HISB-105
	12/19/08	Cold, cloudy	Moderate W		0.0	0.1	0.0	49.1		0.0	0.1	0.0	57.6		0.0	0.1	0.0	57.9	Grouting HISB-105
HISB-106	12/3/08	Sunny, mid 30's	Moderate W		0.0	0.0	0.0	12.8		0.0	0.0	0.0	11.6		0.0	0.0	0.0	10.2	Hand clear at HISB-106
	12/4/08	Cold and Sunny	Moderate W		0.0	0.0	0.0	40.1		0.0	0.0	0.0	70.1		0.0	0.0	0.0	52.1	Drilling at HISB-106
	12/5/08	Sunny. High 30's	Moderate N		0.0	0.0	0.0	16.5		0.0	0.0	0.0	36.9		0.0	0.0	0.0	19.1	Drilling at HISB-106
HISB-107	12/3/08	Sunny, mid 30's	Moderate W		0.0	0.0	0.0	39.6		0.0	0.0	0.0	38.0		0.0	0.0	0.0	38.2	Hand clear ar HISB-107
	12/8/08	Cloudy, Hi-20's	Moderate N		0.0	0.0	0.0	10.0		0.0	0.0	0.0	7.9		0.0	0.0	0.0	23.6	Drilling HISB-107
	12/9/08	Overcast, mid 40's	Moderate N		0.0	0.1	0.0	33.8		0.0	0.1	0.0	33.7		0.0	0.1	0.0	45.3	Drilling at HISB-107

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind Direction/ Strength	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
				MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
HISB-108	12/9/08	Cloudy, low 40's	NR	0.0	0.0	0.0	16.1	0.0	0.0	0.0	17.6	0.0	0.0	0.0	17.0	Drilling at HISB-108
	12/10/09	Lt rain becoming heavier rain.	Moderate SW	0.0	3.1	0.0	90.1	0.0	3.4	0.0	158.7	0.0	3.3	0.0	98.3	Drilling at HISB-108, Rain may effect VOC readings. High EZ PM ₁₀ reading due to exhaust from Geoprobe.
	12/12/08	Cloudy, mid 40'	Moderate S	1.0	5.0	0.0	32.7	1.0	2.5	0.0	40.7	1.0	4.0	0.0	32.7	Drilling at HISB-108. Groundwater sampling
	12/15/08	Overcast, mid 50's	Moderate S	0.0	0.4	0.0	61.9	0.0	0.4	0.0	67.8	0.0	0.4	0.0	60.3	Drilling at HISB-108. Groundwater sampling
	12/16/08	Snow, Mid - 30's	NR	0.0	0.0	0.0	56.4	0.0	0.0	0.0	44.6	0.0	0.0	0.0	37.6	Drilling at HISB-108. Groundwater sampling
	1/23/09	Mid-40's	NR	0.0	0.0	0.0	46.1	0.0	0.0	0.0	47.2	0.0	0.0	0.0	38.7	Drilling at HISB-108.
HISB-109	12/3/08	Sunny, mid-30's	Moderate W	0.0	0.0	0.0	35.6	0.0	0.0	0.0	35.8	0.0	0.0	0.0	35.9	Hand clearing.
	12/10/08	Lt rain. 60's	Moderate S	0.0	7.6	0.0	122.1	0.0	3.2	0.0	123.2	0.0	5.6	0.0	116.3	Drilling, moisture is most likley responsible for elevated VOCs and PM ₁₀ concentrations.
	12/11/08	Rain	Moderate NE	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	0.0	0.0	0.0	NR	Drilling, then grouting. DataRam not used due to rain.
HISB-110	10/30/08	clear, low 50's	N, 5-15 mph	0.0	1.9	0.0	15.1	0.0	1.9	0.0	154.3	0-1	1.9	0.0	24.3	Hand clearing, drilling, then grouting. PM ₁₀ Alert Limit exceedance attributed to grouting operation. Not considered an Action Level exceedance because the activities were non-intrusive.
HISB-111	9/22/08	Sunny, 70's	E	0.0	0.0	0.0	46.2	0.0	0.0	0.0	73.2	0.0	0.0	0.0	48.8	Hand clearing
	10/30/08	Clear, breezy, low 50's	N moderate to strong intensity, Shifting to E	0-1	1.9	0.0	21.9	0.0	1.9	0.0	71.1	0-1	1.4	0.0	47.4	Drilling
				0.0	0.0	0.0	10.7	0.0	0.0	0.0	11.3	0.0	0.0	0.0	11.3	Grouting
HISB-112	10/31/08	Clear, 40's	Light N	0-1	0.7	0.0	40.3	0-1	0.3	0.0	65.0	0.0	1.5	0.0	125.0	Drilling, high DW concentration is caused by truck driving by on the street.

Table F-1
Modified Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Parameter	Alert Limits	Action Limits	Drilling Rig/ Geoprobe
TVOC	2.5 ppm> upwind	5.0 ppm> upwind	15-min averages/periodic
HCN	N/A	1.0 ppm> upwind	periodic/ periodic
H ₂ S	N/A	N/A	periodic/ periodic
PM ₁₀	100 ug/m ³ > upwind	150 ug/m ³ > upwind	15-min averages/periodic

Location	Date	Weather	Wind	Upwind (UP)				Exclusion Zone (EZ)				Downwind (DW)				Activities/Notes
			Direction/ Strength	MultiRae			DataRam4	MultiRae			DataRam4	MultiRae			DataRam4	
				HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	HCN ppm	VOC ppm	H ₂ S ppm	PM ₁₀ ug/m ³	
HISB-113	10/31/08	Clear, High-40's-Low 50's	Light N	0.0	0.0	0.0	27.6	0.0	0.0	0.0	42.8	0.0	0.0	0.0	32.5	Drilling to install a well. Tucks nearby could have influenced dust concentrations.
HISB-114	12/22/08	Very cold, cloudy	Moderate W	0.0	0.0	0.0	25.1	0.0	0.0	0.0	28.9	0.0	0.0	0.0	32.7	Hand clearing, then drilling.
	12/23/08	Cold, sunny	Moderate E	0.0	0.0	0.0	30.8	0.0	0.0	0.0	29.8	0.0	0.0	0.0	27.6	Drilling
	12/24/08	Rain, Upper 30's	Moderate S	0.0	0.0	0.0	NR	0.0	0.0	0.0	8.6	0.0	0.0	0.0	NR	Drilling
HISB-115	1/14/09	Cold, sunny	Moderate W	0.0	0.0	0.0	13.6	0.0	0.0	0.0	10.5	0.0	0.0	0.0	12.9	Hand clearing, then drilling
	1/15/09	Snow, mid-20's. Snow ends in late afternoon	NR	0.0	0.0	0.0	15.7	0.0	0.0	0.0	19.9	0.0	0.0	0.0	13.2	Drilling, DataRam not used until late afternoon when sowfall stops.

NR = Not Recorded

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/15/2008	ISS-01	Upwind (UW)	NW	1.2	0.1	0.1	NM
		Exclusion Zone (EZ)	NW	0.7	0.0	0.0	0.5
		Downwind (DW)	NW	0.6	0.2	0.0	41.2
Activities: Drilling & sampling			Start:	7:52	Stop:	13:55	
Notes: Mowing grass taking place 20 feet from EZ. DW DataRam (PM ₁₀) shut down due to dead battery. UW DataRam switched to DW location.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/16/2008	ISS-01	Upwind (UW)	NW - ENE	0.4	0.1	0.0	34.1
		Exclusion Zone (EZ)	NW - ENE	2.0	0.0	0.0	64.2
		Downwind (DW)	NW - ENE	0.0	0.1	0.5	98.6
Activities: Drilling & sampling			Start:	8:27	Stop:	16:27	
Notes: Mowing grass taking place on adjacent property. Drilling begins at 09:40. Elevated HCN measurements recorded at 08:37 (1.9 ppm), 08:47 (2 ppm) & 08:57 (1.9 ppm) on EZ monitor. Previous & subsequent measurements (taken at 15-sec. intervals) varied from 0.3 to 0.6 ppm. Intrusive activities not being performed at these times. In accordance with DER-10, the elevated levels were not considered Action Level exceedances because the activities were non-intrusive.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/17/2008	TP-105	Upwind (UW)	NNE	0.0	0.1	0.6	24.8
		Exclusion Zone (EZ)	NNE	34.3	0.0	0.0	4.5
		Downwind (DW)	NNE	0.3	0.0	0.0	11.6
Activities: Test pit excavation			Start:	7:38	Stop:	9:07	
Notes: High HCN readings in EZ at 07:43 prior to start of excavation, no apparent reason for elevated readings. HCN alarm sounds 8 minutes into data logging. Measurements taken off of excavated soil result in 0.2 ppm. No further action taken. Additional hand held monitor does not confirm alarm and elevated readings from EZ monitor. Monitor re-calibrated at the end of logging cycle.							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/18/2008	GTB-101	Upwind (UW)	NNE	15.4	0.0	0.0	27.6
		Exclusion Zone (EZ)	NNE	1.3	0.0	0.0	67.5
		Downwind (DW)	NNE	1.1	0.1	0.0	65.1
Activities: Drilling, sampling & grouting			Start: 8:09	Stop: 14:24			
Notes: Several elevated HCN measurements recorded at UW monitor, response is erratic. UW MultiRae taken out of service at the end of the work day when a replacement comes from the rental company.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/19/2008	ISS-02	Upwind (UW)	E	0.8	0.1	0.9	29.4
		Exclusion Zone (EZ)	E	1.0	0.1	0.5	63.4
		Downwind (DW)	E	0.1	0.0	0.3	70.7
Activities: Drilling, sampling, & grouting				Start: 8:30	Stop: 14:02		
Notes: Drilling begins at 08:57. EZ DataRam (PM ₁₀) had a fault at 09:20 & was restarted.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/22/2008	ISS-03	Upwind (UW)	E	200	0.9	0.0	NM
		Exclusion Zone (EZ)	E	0.8	0.1	0.0	15.1
		Downwind (DW)	E	0.6	0.0	0.0	93.7
Activities: Drilling & sampling			Start:	8:18	Stop:	13:56	
Notes: No UW DataRam (PM ₁₀) because it had a failure message. DW particulate concentrations are affected by construction vehicle traffic. Elevated UW HCN measurements are attributed to faulty instrument sensor (readings from 13:32 - 13:51 range from approximately 100 - 200 ppm).							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/23/2008	ISS-03	Upwind (UW)	E	1.0	0.0	0.0	59.0
		Exclusion Zone (EZ)	E	6.5	0.1	1.0	21.3
		Downwind (DW)	E	1.1	0.0	0.0	176.6
Activities: Grouting			Start:	8:05	Stop:	11:56	
Notes: Elevated DW particulate readings attributed to tree removal activity approximately 100 ft. away, nearby construction vehicles, and cement mixing activity. "Creosote-type" odor noted at 08:30. "Sewage" odor noted while nearby portable outhouses are being serviced. Elevated HCN readings in EZ noted during mixing of water with Portland cement & as augers are being dismantled. In accordance with DER-10, the elevated levels were not considered Action Level exceedances because the activities were non-intrusive.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
9/30/2008	ISS-04	Upwind (UW)	N	0.0	0.0	0.0	NM
		Exclusion Zone (EZ)	N	0.5	0.0	0.2	NM
		Downwind (DW)	N	15.2	0.1	0.2	NM
Activities: Drilling & sampling			Start:	8:02	Stop:	14:46	
Notes: Elevated DW HCN measurements not attributed to intrusive activities, instrument response is erratic & EZ monitor did not show elevated levels. In accordance with DER-10, the elevated levels were not considered Action Level exceedances because the activities were non-intrusive.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
10/4/2008	ISS-04	Upwind (UW)	N	7.7	0.0	0.0	75.8
		Exclusion Zone (EZ)	N	4.5	0.0	2.5	14.9
		Downwind (DW)	N	0.3	0.0	0.1	25.7
Activities: Drilling and grouting ISS-04			Start:	8:09	Stop:	11:59	
Notes: UW MultiRae producing erratic HCN readings, Draeger tube sample taken at 11:53 to check elevated response from the instrument. No reaction detected in the tube. UW MultiRae was replaced at 08:26.							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
12/17/2008	HISB-106	Upwind (UW)	NW - W	0.8	NM	0.1	104.7
		Exclusion Zone (EZ)	NW - W	0.1	0.1	13.2	NM
		Downwind (DW)	NW - W	0.8	0.0	3.4	119.1
Activities: Drilling & grouting			Start:	8:36	Stop:	15:01	
Notes: CAMP paused at 10:35 as a driller leaves the location to get extra equipment. EZ VOC readings erroneous due to faulty instrument sensor, which were checked with back-up MultiRae (SN# 01380); - elevated readings not confirmed. EZ MultiRae replaced at 13:22, no VOC exceedances recorded afterwards. Elevated DW VOC readings attributed to rainfall & exhaust from drilling rig. UW MultiRae equipped with CO sensor in lieu of H ₂ S sensor (mistake from rental company).							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
12/18/2008	HISB-106	Upwind (UW)	NW - W	1.7	NM	0.1	142.7
		Exclusion Zone (EZ)	NW - W	54.3	0.0	0.4	36.7
		Downwind (DW)	NW - W	0.9	0.0	0.0	70.2
Activities: Drilling			Start:	8:30	Stop:	17:32	
Notes: Elevated HCN measurements recorded on EZ monitor at 10:16, no apparent reason noted. UW MultiRae equipped with CO sensor in lieu of H ₂ S sensor (mistake from rental company).							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
12/19/2008	HISB-106	Upwind (UW)	E	1.6	0.1	0.0	NM
		Exclusion Zone (EZ)	E	NM	NM	NM	47.7
		Downwind (DW)	E	1.0	0.0	0.6	53.7
Activities: Drilling & grouting			Start:	8:27	Stop:	14:25	
Notes:							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/15/2009	HIMW-20S	Upwind (UW)	NW	NM	NM	NM	120.3
		Exclusion Zone (EZ)	NW	0.3	0.0	0.0	34.7
		Downwind (DW)	NW	0.1	0.0	0.0	37.2
Activities: Well installation				Start: 9:13	Stop: 15:27		
Notes: Work performed with Geoprobe rig, started at 12:30. EZ MultiRae battery failure, replaced with UW monitor.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/15/2009	HIMW-20I	Upwind (UW)	NW	NM	NM	NM	120.3
		Exclusion Zone (EZ)	NW	0.1	0.0	0.0	34.7
		Downwind (DW)	NW	0.3	0.0	0.0	37.2
Activities: Well Installation			Start:	10:12	Stop:	15:27	
Notes: Work performed with Geoprobe rig. EZ MultiRae battery failure, replaced with UW monitor. Drilling ended at 13:50.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/19/2009	HIMW-20I	Upwind (UW)	S	0.1	0.0	5.2	127.4
		Exclusion Zone (EZ)	S	0.0	0.0	0.0	536.2
		Downwind (DW)	S	0.3	0.1	0.4	N/A
Activities: Well installation			Start:	9:41	Stop:	17:04	
Notes: At 10:18, EZ DataRam was re-zeroed due to erroneous readings. This attempt at installing the well was unsuccessful due to sand heave below the water table.							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/20/2009	TP-102	Upwind (UW)	NNE	0.0	0.0	1.6	36.7
		Exclusion Zone (EZ)	NNE	0.4	0.0	0.6	126.7
		Downwind (DW)	NNE	0.0	0.0	0.0	75.2
Activities: Test Pit clearing			Start:	9:48	Stop:	14:14	
Notes: Backhoe used to clear test pit. Approximately 1 - 2 ft. of frost below surface. Work suspended due to slight hydraulic fluid leak from joint of excavator arm, spill pads set up underneath. Battery fails on EZ MultiRae monitor near the end of the day.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/21/2009	HIMW-20I	Upwind (UW)	N	0.3	0.0	0.2	16.6
		Exclusion Zone (EZ)	N	0.2	0.0	0.0	259.9
		Downwind (DW)	N	0.5	0.0	2.4	47.0
Activities: Well installation			Start:	9:08	Stop:	17:22	
Notes: The elevated EZ PM ₁₀ levels are attributed to the placement of filter sand and grout (Portland cement) mixing activities.							

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min TWA	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/26/2009	HIMW-20I	Upwind (UW)	NW	0.2	0.0	1.9	26.7
		Exclusion Zone (EZ)	NW	0.2	0.3	4.0	91.7
		Downwind (DW)	NW	0.6	0.0	0.1	40.7
Activities: Well installation			Start:	9:02	Stop:	15:32	
Notes: Elevated VOC measurements on the EZ monitor were recorded during the period 09:04 - 09:57 & not confirmed or attributed to site activities. In accordance with DER-10, the elevated levels were not considered Action Level exceedances. The MultiRae was re-zeroed and all subsequent measurements were below the Alert & Action levels. Higher PM ₁₀ measurements were recorded during grout mixing activities.							

Table F-2
Community Air Monitoring Program (CAMP) Data Summary
Pre-Design Investigation Report
Hempstead Former MGP Site

Date	Location		Wind Direction	Max Readings			
				Periodic		15-min avg.	
				HCN (ppm)	H ₂ S (ppm)	VOC (ppm)	PM ₁₀ (ug/m ³)
1/27/2009	HIMW-20S	Upwind (UW)	NW	0.6	0.0	1.4	NM
		Exclusion Zone (EZ)	NW	0.3	0.0	6.2	15.3
		Downwind (DW)	NW	0.5	0.0	0.0	97.9
Activities: Well installation			Start:	9:47	Stop:	14:57	
Notes: Elevated VOC measurements on the EZ monitor were recorded during the period 09:49 - 10:07 & not confirmed or attributed to site activities. In accordance with DER-10, the elevated levels were not considered Action Level exceedances. The MultiRae was re-zeroed and all subsequent measurements were below the Alert & Action levels. The DW DataRam stopped operating due to low battery condition & was replaced with the UW monitor.							

Notes:

HCN = Hydrogen Cyanide
H₂S = Hydrogen Sulfide
VOC = Volatile Organic Compounds
PM₁₀ = Respirable Particulate Matter
ppm = parts per million
ug/m³ = micrograms per cubic meter
NM = not measured

A summary of community air monitoring data collected during the investigation activities is provided in the attached tables. In most instances, the data collected during Site activities was below the Alert and Action Levels. Listed below is a summary of readings that were recorded above the Action Levels, a discussion of the cause of each, and the mitigation actions that were taken, if necessary.

APPENDIX G

DATA USABILITY SUMMARY REPORT

APPENDIX G
DATA USABILITY SUMMARY REPORT
PRE-DESIGN INVESTIGATION

HEMPSTEAD INTERSECTION STREET FORMER MGP SITE
VILLAGES OF HEMPSTEAD AND GARDEN CITY
LONG ISLAND, NEW YORK

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TABLE OF CONTENTS

	<u>Page No.</u>
I. INTRODUCTION	G-1
II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION	G-1
III. DATA DELIVERABLE COMPLETENESS	G-3
IV. HOLDING TIMES/SAMPLE RECEIPT	G-3
V. NON-CONFORMANCES	G-5
VI. SAMPLE RESULTS AND REPORTING	G-9
VII. SUMMARY	G-9

TABLES (Following Text)

Table G-1	Summary of Data Qualifications
Table G-2	Validated Groundwater Sample Analytical Results
Table G-3	Validated Subsurface Soil Sample Analytical Results
Table G-4	Validated Surface Soil Sample Analytical Results
Table G-5	Validated Field QC Sample Analytical Results

APPENDICES (Following Tables)

Attachment A	Validated Form 1's
Attachment B	Support Documentation

I. INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *Draft DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B - Guidance for the Development of Data Usability Summary Reports*, December 2002, and in accordance with the *Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former Manufactured Gas Plant Site*, Final, URS, July 2008.

Analytical data for one hundred and eight (108) groundwater samples, five (5) field duplicates, five (5) matrix spike/matrix spike duplicate (MS/MSD) pairs, and twenty-two (22) trip blanks; sixty-seven (67) subsurface soil samples; and twenty-six (26) surface soil samples were collected by URS personnel from September 24, 2008 to September 28, 2009 are discussed in this DUSR. The samples were collected as part of the Pre-Design Investigation at the Hempstead Intersection Street Former MGP Site.

II. ANALYTICAL METHODOLOGIES AND DATA VALIDATION

The samples were analyzed by H2M Laboratories, Inc. (Melville, NY) for the following parameters. Not all samples were analyzed for each parameter.

Matrix	Parameter	Method No.
Groundwater	Benzene, Toluene, Ethylbenzene, and Xylene (BTEX)	SW8260B
	Polynuclear Aromatic Hydrocarbons (PAHs)	SW8270C
	Total Alkalinity	SM 2320 B
	Nitrate	EPA 353.2
	Nitrite	EPA 353.2
	ortho-Phosphate	SM 4500-P E
Subsurface Soil	BTEX	SW8260B
	PAHs	SW8270C
	Total Cyanide	SW9010/9014
	Total Phenols	SW9065

Matrix	Parameter	Method No.
Subsurface Soil	Hexane Extractable Material (Oil and Grease)	EPA 1664A
	Moisture Content	ASTM D 2216
	Target Compound List (TCL) Volatile Organic Compounds (VOCs) plus TICs	SW8260B
	TCL Semivolatile Organic Compounds (SVOCs) plus TICs	SW8270C
	pH	SW9045C
	Fuel Fingerprint	SW8100-Modified
Surface Soil	PAHs	SW8270C
	Arsenic	SW6010B
	Mercury	SW7471A

Notes:

TICs – Tentatively Identified Compounds

A limited data validation was performed on the samples in accordance with the guidelines presented in the following USEPA Region II documents:

- *Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B, SOP HW-24, Rev. 2, October 2006;*
- *Validating Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8270D, SOP HW-22, Rev. 3, October 2006; and*
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3, SOP HW-2, Rev. 13, September 2006.*

The limited data validation included a review of the following quality control (QC) elements to determine if the data are within the protocol-required QC limits and specifications:

- Holding times;
- Completeness of all required deliverables;
- Instrument tunes and calibrations;
- Surrogate and internal standard recoveries;
- Matrix spike and laboratory control sample recoveries;
- Matrix/field duplicate precision;
- Field and laboratory blank contamination;

- Determination that all samples were analyzed using established and agreed upon analytical protocols;
- Evaluation of the raw data to confirm the results provided in the data summary sheets; and
- Review of laboratory data qualifiers.

Qualifications applied to the data include 'U' (not detected), 'J' (estimated concentration), 'JN' (tentatively identified, estimated concentration), 'UJ' (estimated reporting limit), and 'R' (rejected, data are unusable). A summary of qualifications made to the data is presented in Table G-1. The validated analytical results are presented in Tables G-2 (groundwaters), G-3 (subsurface soils), G-4 (surface soils), and G-5 (field QC). Copies of the validated laboratory results (i.e., Form 1's) is presented in Attachment A (arranged alpha-numerically by matrix). Documentation supporting the qualification of data is presented in Attachment B [arranged chronologically by sample delivery group (SDG) per matrix]. Only problems affecting data usability are discussed in this report.

III. DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP Category B or equivalent) were provided by the laboratory, and included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results, except where noted in correspondence to the laboratory (see Attachment B). All data reporting issues were resolved with the lab, and are reflected in the revised data packages.

IV. HOLDING TIMES/SAMPLE RECEIPT

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC), except for the following instances.

For groundwater sample DGP-209(40-44'), the sample ID and time of collection were incorrectly referenced on the COC by the field technician. The sample containers referenced the correct sample information. The COC was manually corrected.

For groundwater sample DGP-209(34-38'), the laboratory courier incorrectly documented the date received on the COC as 11/10/08. This sample was actually relinquished by the field technician to the laboratory courier on 11/11/08.

For groundwater samples HISB-106/GW/50-54, HISB-107/GW/70-74, and HISB-114/GW/90-94, the collection time documented on the sample containers differed from the

COC. The laboratory contacted the field technician to resolve this reporting issue, the COCs reference the correct collection times.

For groundwater samples HIMW-012I, -012S, -013I, and -013S, the matrix was inadvertently omitted from the COC by the field technician.

The trip blank associated with groundwater samples HIMW-020I and HIMW-020S was not documented on the COC by the field technician. The laboratory did receive a trip blank, whereupon they proceeded with the appropriate analysis.

For soil samples ISS-01/25-70, ISS-02/10-35, ISS-03/10-50, and ISS-04/20-40, the collection time documented on the sample containers differs from the COC. The laboratory contacted the field technician to resolve this reporting issue, the COC referenced the correct collection times.

The collection times were not documented on the COCs for the following soil samples: DGP-205/27-30, DGP-207/25-29, DGP-251/10-13, DGP-251/20-22, DGP-251/25-28, DGP-206/25-28, DGP-208/28.5-30, DGP-261/33-35, DGP-262/32.5-35, DGP-263/30-35, DGP-264/30-34, DGP-265/32.5-33, DGP-266/5-10, DGP-271/33-34.5, DGP-275/35.5-37, DGP-277/30-31, DGP-278/28-30, DGP-278/30-32, DGP-278/38-40, DGP-279/29-30, DGP-280/27.5-29, DGP-298/31-34, DGP-299/23-25, DGP-300/33-35, DGP-309/25-30, DGP-309/35-40, DGP-310/25-30, and DGP-310/35-40. The laboratory contacted the field technician to resolve this reporting issue, the sample containers referenced the collection times.

Since the above referenced COC non-conformances have no significant impact on the data, no further data qualification was necessary.

Thirty-three (33) groundwater samples and one trip blank, both BTEX vials were received at the laboratory with headspace ranging in size from 2 mm to 25 mm. The affected groundwater samples exhibited high turbidity due to the aggressive nature of the field sampling technique (i.e., it is believed that the suspended solids contained significant amounts of calciferous material, which when added to a HCl preserved vial developed off-gasing. The field technicians noted that while some groundwater samples effervesced immediately upon preservation, others may have developed headspace during sample transit to the lab. As a result, the detected results for the affected groundwater samples were qualified 'J', and the non-detect results were rejected ('R'), as summarized on Table G-1.

There were some instances where only one BTEX vial for a sample exhibited headspace. In those cases, the laboratory analyzed the vial that did not exhibit headspace. On the other hand, some samples required secondary dilutions whereupon the laboratory had to use the vial containing headspace. Detected results from the secondary dilutions were qualified 'J'.

All samples were analyzed within the required holding times, except for the following instances.

The initial BTEX medium level results for soil sample DGP-265/32.5-33 did not correlate with the low-level analysis results (not reported by lab), as indicated by the laboratory. However, the medium level reanalysis, which was performed outside technical holding time criteria (i.e., 14 days from sample collection), did correlate with the low-level analysis results. Sample results reported from the medium level reanalysis were qualified 'J', as summarized on Table G-1.

The initial BTEX analysis for soil sample DGP-207/25-29 was performed at a medium level. The sample was reanalyzed at a low-level, but the reanalysis was performed outside technical holding time criteria (i.e., 14 days from sample collection). The medium level analysis was reported in its entirety, while the low-level results were crossed out and deemed unusable.

The PAH re-extraction for groundwater sample HISB-103/GW/80-84 was performed outside technical holding time criteria. Sample results reported from the reanalysis were qualified 'J' or 'UJ', as summarized on Table G-1.

V. NON-CONFORMANCES

Instrument Calibration/Tune

The low-point for three low-level soil BTEX initial calibrations (ICALs) (i.e., dated 04/23/08, 08/15/08, and 01/28/09) were reported as 10 µg/Kg, but the associated soil sample reporting limits (RLs) were based on 5 µg/Kg. After consultation with the laboratory to confirm this reporting non-conformance, the low-level soil RLs were manually revised during the data review to reflect the correct level of quantitation. In addition, 'J' qualifiers were manually added to detected results that fell below the revised RLs.

The low-point for two medium level soil BTEX ICALs (i.e., dated 01/09/09 and 01/31/09) were reported as 10 µg/L on-column (equivalent to 1,200 µg/Kg), but the associated soil RLs were based on 5 µg/L on-column (equivalent to 620 µg/Kg). After consultation with the

laboratory to confirm this reporting non-conformance, the medium level soil RLs were manually revised during the data review to reflect the correct level of quantitation. In addition, 'J' qualifiers were manually added to detected results that fell below the revised RLs.

The low-point for two low-level aqueous BTEX ICALs (i.e., dated 01/09/09 and 02/04/09) were reported as 10 µg/L, but the associated groundwater RLs were based on 1 µg/L. After consultation with the laboratory to confirm this reporting non-conformance, the low-level groundwater RLs were manually revised during the data review to reflect the correct level of quantitation (i.e., 10 µg/L). In addition, 'J' qualifiers were manually added to detected results that fell below the revised RLs.

For PAH analyses, the ICAL average relative standard deviations (RSDs) associated with the several groundwater and soil samples, were greater than 15% for phenanthrene, benzo(b)fluoranthene, and/or benzo(k)fluoranthene. The results for these compounds for the affected samples were qualified 'J' or 'UJ', as summarized on Table G-1.

For PAH analyses, the percent differences (%Ds) between the ICAL average relative response factors (RRF) and the RRFs in the continuing calibration (CCAL) standards, associated with the several groundwater and soil samples, were greater than 20% for benzo(b)fluoranthene, indeno(1,2,3-cd)pyrene, dibenzo(a,h) anthracene, and/or benzo(g,h,i) perylene. The results for these compounds for the affected samples were qualified 'J' or 'UJ', as summarized on Table G-1.

The PAH secondary dilution analysis of groundwater sample HISB-105-2/GW/60-64 was performed 5 minutes past the 12-hour instrument tune. It should be noted that there is good correlation between the secondary dilution and initial analysis results for the affected PAHs, therefore, this non-conformance does not significantly jeopardize the usability of the data. No qualification of the data was deemed necessary.

For VOC analyses, the ICAL average RSDs associated with soil sample DGP-203/35-39, were greater than 20% for acetone and methylene chloride. The acetone and methylene chloride results for this sample were qualified 'J' or 'UJ', as summarized on Table G-1.

For VOC analyses, the %Ds between the ICAL average RRFs and the RRFs in the CCAL standard, associated with the soil sample DGP-203/35-39, were greater than 20% for acetone, bromomethane, 2-butanone, and 2-hexanone. The results for these compounds for this sample were qualified 'J' or 'UJ', as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., Forms 5, 6, and 7) is presented in Attachment B.

Instrument Carryover

The BTEX analysis of soil sample DGP-253/30-35 exhibited instrument carryover for toluene, ethylbenzene, and xylene from soil sample AREA E/OAE/S-1 [Interim Remedial Response (IRM) sample]. The detected results for these compounds for soil sample DGP-253/30-35 were qualified 'J', as summarized on Table G-1.

The BTEX analysis of soil sample DGP-208/28.5-30 exhibited instrument carryover for xylene from soil sample DGP-206/25-28. The detected xylene result for soil sample DGP-208/28.5-30 was qualified 'J', as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., Form 5) is presented in Attachment B.

System Monitoring Compounds (Surrogates)

The initial BTEX and/or PAH analyses for several groundwater and subsurface soil samples exhibited surrogate percent recoveries (%Rs) outside QC limits. The laboratory re-extracted and/or reanalyzed the affected samples in order to substantiate matrix interference. The analytical results reported on Tables G-2 and G-3 exhibit data that are deemed the most usable between the multiple analyses for the affected samples. Sample results associated with the surrogate outliers were qualified 'J' and 'UJ' for %Rs >10%, and rejected ('R') for %Rs <10%, as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., Form 2) is presented in Attachment B.

Internal Standards

The initial PAH analyses for several subsurface and surface soil samples exhibited internal standards (ISs) below QC limits (i.e., <50%). The laboratory reanalyzed the affected samples (many of which at secondary dilutions due to high levels of PAHs) in order to substantiate matrix interference. The analytical results reported on Tables G-3 and G-4 present data that

are deemed the most usable between the multiple analyses for the affected samples. Sample results associated with the IS outliers were qualified 'J' and 'UJ', as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., Form 8) is presented in Attachment B.

Laboratory Control Samples

The laboratory control samples (LCSs) associate with several groundwater and soil samples exhibited outliers for one or more BTEX or PAHs. Sample results associated with the LCS outliers were qualified 'J' or 'UJ', as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., Form 3) is presented in Attachment B.

Blank Contamination

For soil sample DGP-203/35-39, methylene chloride and bis(2-ethylhexyl)phthalate were detected at concentrations less than ten times the amount detected in the associated method blanks. The final results for these compounds was raised to the RL and qualified 'U', as summarized on Table G-1.

For soil sample DGP-203/35-39, four SVOC TICs (i.e., substituted alcohols and aldol condensation products) were detected at concentrations less than five times the amount detected in the associated method blank. The results for these TICs were crossed out and considered unusable, as summarized on Table G-1.

Documentation supporting the qualification of data (i.e., method blank Forms 1 and 4) is presented in Attachment B.

Dilutions

For BTEX and PAHs, several groundwater and soil samples required secondary dilutions in order to bring target compound concentrations within the linear range of calibration.

However, there were instances where affected target compounds were not detected in the secondary dilution analyses. In those cases, the undiluted (or lesser dilution) results that exceeded the linear range of calibration were reported and qualified 'J', as summarized in Table G-1.

Matrix Duplicates

The matrix duplicate (MD) analysis of surface soil sample HISS-03 exhibited a relative percent difference (RPD) above QC limits (i.e., >20%). Surface soil sample results associated with the MD outlier were qualified 'J', as summarized on Table G-1.

Qualitative Identification

The fuel fingerprint patterns for several subsurface soil samples lack identifying peaks (i.e., aliphatic hydrocarbons) due to environmental "weathering", or contain additional polynuclear aromatic hydrocarbon (PAH) peaks not related to a particular fuel type, thus making fuel type identification difficult to definitively determine by the laboratory. These results were qualified 'JN', as summarized on Table G-1. The fuel type was tentatively identified by the laboratory because of sample weathering for subsurface soil samples DGP-295/25-30, DGP-296/30-35, DGP-309/25-30, DGP-309/35-40, DGP-310/35-40, DGP-320/25-30, and DGP-320/30-35 was "Fuel Oil #2", and "Sun 6 Cable Oil" for sample DGP-310/25-30. Copies of sample and calibration standard chromatograms are presented in Attachment B.

VI. SAMPLE RESULTS AND REPORTING

All sample results were reported in accordance with method requirements and were adjusted for sample size and dilution factors. Analytical results below the RLs (or quantitation limits) were qualified 'J' by the laboratory. The results reported from secondary dilution analyses were qualified 'D' by the laboratory.

VII. SUMMARY

All sample analyses were found to be compliant with the method and validation criteria, except where previously noted. Those results qualified 'J' (estimated), 'JN' (tentatively identified), or 'UJ' (estimated quantitation limit) are considered conditionally usable, while those results qualified

'R' (rejected) are considered unusable. All other sample results are usable as reported. URS does not recommend the re-collection of any samples at this time.

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Date: 2/5/10

Reviewed By: Mary E. Bitka, Principal Chemist *MEB*

Date: 2/5/10

TABLE G-1
SUMMARY OF DATA QUALIFICATIONS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Affected Samples	Fraction	Analytical Deviation	Qualification
HISB-100/GW/70-74, HISB-100/GW/80-84, HISB-102/GW/30-34, HISB-102/GW/40-44, HISB-102-2/GW/60-64, HISB-102-2/GW/70-74, HISB-102-2/GW/80-84, HISB-103/GW/40-44, HISB-105/GW/30-34, HISB-105/GW/50-54, HISB-105/GW/60-64, HISB-105/GW/70-74, HISB-105-2/GW/30-34 to HISB-105-2/GW/100-104, HISB-106/GW/50-54, HISB-106/GW/60-64, HISB-108/GW/90-94, HISB-109/GW/30-34, HISB-109/GW/40-44, HISB-109/GW/90-94, 20090106-TB-1, HISB-115/GW/30-34 to HISB-115/GW/90-94	BTEX	Both sample vials exhibited headspace.	Qualify non-detect results 'R' and detected results 'J'.
DGP-265/32.5-33	BTEX	Medium level analysis exceeded holding time for xylene.	Qualify detected result 'J'.
ISS-04(20-40)	BTEX	%D between the ICAL average RRF and the CCAL RRF >20% for toluene.	Qualify detect result 'J'.
DGP-253/30-35	BTEX	Instrument carryover for toluene, ethylbenzene, and xylene from highly contaminated sample.	Qualify detected results 'J'.
DGP-208/28.5-30	BTEX	Instrument carryover for xylene from highly contaminated sample.	Qualify detected results 'J'.
DGP-251/25-28, DGP-281/30-35, DGP-296/30-35, DGP-309/25-30, DGP-310/25-30, DGP-321/32-33	BTEX	%R for surrogate 4-bromomfluorobenzene above the upper QC limit.	Qualify detect result from undiluted analysis 'J'.
20081119-FD-1, HISB-105-2/GW/60-64	BTEX	Secondary dilution sample vial exhibited headspace.	Qualify detected result from secondary dilution 'J'.
20081223-TB-1	BTEX	Aqueous LCS %R for toluene below the lower QC limit.	Qualify non-detect results 'UJ'.
HISB-102-2/GW/30-34 to HISB-102-2/GW/50-54	BTEX	Aqueous LCS %R for toluene above the upper QC limit.	Qualify detected result 'J'.
ISS-04 (20-40)	BTEX	Soil LCS %R for toluene below the lower QC limit.	Qualify detected result 'J'.
DGP-295/25-30, DGP-296/30-35, DGP-298/31-34	BTEX	Soil LCS %R for toluene, ethylbenzene, and/or total xylene below the lower QC limit.	Qualify detected results 'J'.

TABLE G-1
SUMMARY OF DATA QUALIFICATIONS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Affected Samples	Fraction	Analytical Deviation	Qualification
DGP-262/33-35, DGP-261/33-35	BTEX	Benzene result exceeded linear range of calibration, but was not detected in secondary dilution analysis.	Report result from initial analysis and qualify 'J'.
DGP-207/25-29	BTEX	Sample initially analyzed at medium level. Reanalyzed at low-level, but outside holding time.	Report all results from medium level analysis.
HISB-105-2/GW/50-54, HISB-105-2/GW/60-64, HISB-105-2/GW/70-74, HIMW-012I, HIMW-013I, HISB-115/GW/30-34 to HISB-115/GW/90-94	PAH	ICAL RRF %RSD >15% for phenanthrene.	Qualify detected results 'J'.
DGP-253/30-35, ISS-01(25-70), ISS-02(10-35), ISS-03(10-50), ISS-04(20-40)DGP-211/28-30, DGP-217/20-25, DGP-217/30-35, DGP-234/23-25, DGP-206/25-28, DGP-208/28.5-30, DGP-261/33-35, DGP-262/32.5-35, DGP-263/30-35, DGP-265/32.5-33, DGP-270/30-31, DGP-271/33-34.5, DGP-272/24-25, DGP-205/27-30, DGP-207/25-29, DGP-277/30-31, DGP-278/28-30, DGP-279/29-30, DGP-303/15-16, DGP-326/26-28, DGP-322/30-32, DGP-321/32-33	PAH	ICAL RRF %RSD >15% for benzo(k)fluoranthene.	Qualify detected results 'J'.
DGP-281/20-25, DGP-281/25-30, DGP-281/30-35, DGP-283/25-30	PAH	ICAL RRF %RSD >15% for benzo(b)fluoranthene.	Qualify detected results 'J'.
DGP-303/15-16, DGP-326/26-28, DGP-322/30-32, DGP-321/32-33	PAH	ICAL RRF %RSD >15% for chrysene.	Qualify detected results 'J'.
DGP-320/25-30, DGP-320/30-35, DGP-326/26-28	PAH	ICAL RRF %RSD >15% for benzo(b)fluoranthene and dibenzo(a,h)anthracene.	Qualify detected results 'J'.
HISB-105/GW/30-34 to HISB-105/GW/70-74, HISB-105-2/GW/30-34 to HISB-105-2/GW/60-64 and HISB-105-2/GW/80-84 to HISB-105-2/GW/100-104, DGP-281/20-25, DGP-281/25-30, DGP-281/30-35, DGP-283/25-30	PAH	%D between the ICAL average RRF and the CCAL RRF >20% for benzo(b)fluoranthene.	Qualify non-detect results 'UJ'.
DGP-303/15-16, DGP-321/32-33, DGP-322/30-32, DGP-323/35-40, DGP-325/35-40, DGP-326/26-28	PAH	%D between the ICAL average RRF and the CCAL RRF >20% for benzo(b)fluoranthene.	Qualify non-detect results 'UJ' and detected results 'J'.

TABLE G-1
SUMMARY OF DATA QUALIFICATIONS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Affected Samples	Fraction	Analytical Deviation	Qualification
ISS-01(25-70), ISS-02(10-35), ISS-03(10-50), ISS-04(20-40)	PAH	%D between the ICAL average RRF and the CCAL RRF >20% for indeno(1,2,3-cd)pyrene, dibenzo(a,h) anthracene, and benzo(g,h,i) perylene.	Qualify detect results 'J'.
DGP-253/30-35	PAH	Initial analysis exhibited surrogate/IS %R outliers due to high levels of PAHs. Surrogate/IS %Rs within QC limits for secondary dilution analysis.	Report all results from secondary dilution.
HISB-103/GW/80-84	PAH	%R for one surrogate below 10%.	Qualify detected results 'J'.
HISB-103/GW/80-84	PAH	Re-extraction performed outside holding time.	Qualify all non-detect results 'UJ'.
HISB-108/GW/90-94, HISB-105-2/GW/70-74	PAH	%R for one surrogate below 10%. Re-extraction same results.	Qualify non-detect results 'R' and detected results 'J'.
DGP-206/25-28, DGP-208/28.5-30, DGP-261/33-35, DGP-251/10-13, DGP-264/30-34, DGP-265/32.5-33, DGP-272/24-25, DGP-270/30-31, DGP-205/27-30, DGP-207/25-29, DGP-278/28-30, DGP-279/29-30, DGP-295/25-30, DGP-298/31-34, DGP-300/33-35, DGP-309/25-30, DGP-326/26-28, DGP-322/30-32, DGP-321/32-33	PAH	%R of IS perylene-d12 below lower QC limit.	Qualify detect results for all associated compounds 'J'.
DGP-251/20-22	PAH	%R of IS chrysene-d12 and perylene-d12 below lower QC limit.	Qualify detect results for all associated compounds 'J'.
DGP-261/33-35, DGP-322/30-32	PAH	Benzo(b)fluoranthene and benzo(k)fluoranthene results exceeded linear range of calibration, but were not detected in secondary dilution analysis.	Report results from initial analysis and qualify 'J'.
DGP-270/30-31, DGP-298/31-34, DGP-321/32-33	PAH	Benzo(b)fluoranthene result exceeded linear range of calibration, but was not detected in secondary dilution analysis.	Report result from initial analysis and qualify 'J'.
DGP-278/28-30	PAH	Benzo(k)fluoranthene result exceeded linear range of calibration, but was not detected in secondary dilution analysis.	Report result from initial analysis and qualify 'J'.

TABLE G-1
SUMMARY OF DATA QUALIFICATIONS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Affected Samples	Fraction	Analytical Deviation	Qualification
DGP-265/32.5-33, DGP-326/26-28	PAH	Benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene results exceeded linear range of calibration, but were not detected in secondary dilution analysis.	Report results from initial analysis and qualify 'J'.
DGP-209/40-44, DGP-209/50-54, HISB-100/GW/70-74, HISB-100/GW/80-84, 20081121-FD-1, HISB-108/GW/70-74 to HISB-108/GW/90-94, HISB-109/GW/30-34 to HISB-109/GW/90-94, HISB-105-2/GW/30-34 to HISB-105-2/GW/100-104, HISB-114/GW/30-34 to HISB-114/GW/90-94, DUP-1 12232008	PAH	Aqueous LCS recovery for naphthalene below the lower QC limit.	Qualify non-detect results 'UJ' and detected results 'J'.
DGP-203/35-39	VOC	ICAL RRF %RSD >20% for acetone and methylene chloride.	Qualify non-detect results 'UJ' and detected results 'J'.
	VOC	Concentration of methylene chloride less than five times the amount in associated method blank.	Raise the reported result to the RL and qualify 'U'.
	VOC	%D between the ICAL average RRF and the CCAL RRF >20% for acetone, methylene chloride, 2-butanone, and 2-hexanone.	Qualify non-detect results 'UJ' and detected results 'J'.
	SVOC	ICAL RRF %RSD >15% for bis(2-ethylhexyl)phthalate.	Qualify non-detect result 'UJ'.
	SVOC	%D between the ICAL average RRF and the CCAL RRF >20% for bis(2-chloroethyl)ether, 2-methylphenol, 2,2'-oxybis(1-chloropropane), hexachloroethane, isophorone, bis(2-chloroethoxy)methane, 2-nitroaniline, 3-nitroaniline, 2,4-dinitrophenol, 4-nitrophenol, and bis(2-ethylhexyl)phthalate.	Qualify non-detect result 'UJ'.
	SVOC	Aqueous LCS %R for 2,4-dimethylphenol below the lower QC limit.	Qualify non-detect result 'UJ'.

TABLE G-1
SUMMARY OF DATA QUALIFICATIONS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Affected Samples	Fraction	Analytical Deviation	Qualification
DGP-203/35-39	SVOC	Concentration of bis(2-ethylhexyl)phthalate less than ten times the amount in associated method blank.	Raise the reported result to the RL and qualify 'U'.
	SVOC	Concentrations of four TICs (i.e., substituted alcohols and aldol condensation products) were less than five times the amount in associated method blank.	Results crossed out and considered unusable.
DGP-295/25-30, DGP-296/30-35, DGP-309/25-30, DGP-309/35-40, DGP-310/25-30, DGP-310/35-40, DGP-320/25-30, DGP-320/30-35	Fuel Fingerprint	Fuel fingerprint pattern is "weathered" or contains additional PNA peaks, ID is considered tentative.	Qualify detected result 'JN'.
BSS-01 to BSS-05, HISS-03, HISS-03-NW, HISS-03-SW, HISS-03-W, HISS-14, HISS-14-NE, HISS-14-NW, HISS-14-SE, HISS-14-SW	Mercury	RPD for MD above QC limit.	Qualify detected result 'J'.

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-209	DGP-209	DGP-209	DGP-209	HIMW-0121
Sample ID			DGP-209/34'-38'	DGP-209/GW/40-44	DGP-209/GW/50-54	DGP-209/GW/70-74	HIMW-121
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			34.0-38.0	40.0-44.0	50.0-54.0	70.0-74.0	-
Date Sampled			11/11/08	11/11/08	11/13/08	11/14/08	01/12/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	620 D	4,300 D	2,900 D	2	41
Ethylbenzene	UG/L	-	89	130	49	1 U	3
Toluene	UG/L	-	260 D	150	110	1 U	1 U
Xylene (total)	UG/L	-	740 D	400 D	800 D	1 U	9
Total BTEX	UG/L	100	1,709	4,980	3,859	2	53
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	190 DJ	44	97 DJ	10 U	10 U
Acenaphthene	UG/L	-	10	3 J	6 J	10 U	30
Acenaphthylene	UG/L	-	65	38	67	10 U	37
Anthracene	UG/L	-	2 J	1 J	2 J	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	16	11	12	10 U	22
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	770 D	530 DJ	1,100 DJ	3 J	3 J
Phenanthrene	UG/L	-	13	18	13	10 U	8 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,066	645	1,297	3	100

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #03/01/08 AND #06/23/09 AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008 OR [LOGDATE] <= #10/28/2008)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-209	DGP-209	DGP-209	DGP-209	HIMW-0121
Sample ID			DGP-209/34'-38'	DGP-209/GW/40-44	DGP-209/GW/50-54	DGP-209/GW/70-74	HIMW-121
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			34.0-38.0	40.0-44.0	50.0-54.0	70.0-74.0	-
Date Sampled			11/11/08	11/11/08	11/13/08	11/14/08	01/12/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	70.2
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

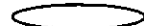
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[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/08# AND #05/23/09# AND ([LOCID] LIKE 'DGP-1*' OR [LOCID] LIKE 'HISB-1*' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012I	HIMW-012S	HIMW-012S	HIMW-012S	HIMW-013I
Sample ID			HIMW-012I	HIMW-12S	DUP-02	HIMW-012S	HIMW-13I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/27/09	01/12/09	04/27/09	04/27/09	01/12/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	28	1	1 U	1 U	38
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1.2 J	10	1 U	1 U	7
Total BTEX	UG/L	100	29.2	11	ND	ND	45
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	24	10 U	10 U	10 U	6 J
Acenaphthylene	UG/L	-	23	10 U	10 U	10 U	46
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	2 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	13 J	10 U	10 UJ	10 UJ	13
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Phenanthrene	UG/L	-	3 J	10 U	10 U	10 U	13 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	65	ND	ND	ND	80

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] = 'HIMW-012I' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013I' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020I' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

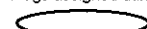
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-012I	HIMW-012S	HIMW-012S	HIMW-012S	HIMW-013I
Sample ID			HIMW-012I	HIMW-12S	DUP-02	HIMW-012S	HIMW-13I
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/27/09	01/12/09	04/27/09	04/27/09	01/12/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	38.5	NA	NA	120
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #03/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012I' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013I' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020I' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/26/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013I	HIMW-013S	HIMW-013S	HIMW-020I	HIMW-020S
Sample ID			HIMW-013I	HIMW-13S	HIMW-013S	HIMW-020I	HIMW-020S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/24/09	01/12/09	04/24/09	02/04/09	02/04/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	26	1 U	1 U	140	1 U
Ethylbenzene	UG/L	-	1.4	1 U	1 U	46	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	5.2 J	1 U	1 U	38	1 U
Total BTEX	UG/L	100	32.6	ND	ND	224	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	2 J	10 U
Acenaphthene	UG/L	-	4 J	10 U	10 U	9 J	10 U
Acenaphthylene	UG/L	-	39	10 U	10 U	120 D	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	1 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	9 J	10 U	10 U	20	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	11	10 U
Phenanthrene	UG/L	-	8 J	10 U	10 U	16	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	60	ND	ND	179	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #08/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HIMW-013I	HIMW-013S	HIMW-013S	HIMW-020I	HIMW-020S
Sample ID			HIMW-013I	HIMW-13S	HIMW-013S	HIMW-020I	HIMW-020S
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			-	-	-	-	-
Date Sampled			04/24/09	01/12/09	04/24/09	02/04/09	02/04/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	20.2	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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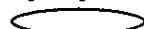
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-100	HISB-100	HISB-100
Sample ID			HISB-100/GW/30-34	HISB-100/GW/40-44	HISB-100/GW/50-54	HISB-100/GW/60-64	20081121-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			11/19/08	11/19/08	11/19/08	11/19/08	11/21/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	6,100 D	160	630 D	400 DJ
Ethylbenzene	UG/L	-	1 U	700 D	82	260 D	3
Toluene	UG/L	-	1 U	4,100 D	49	170 D	14
Xylene (total)	UG/L	-	1 U	1,100 D	150	410 D	250
Total BTEX	UG/L	100	ND	12,000	441	1,470	667
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	160 DJ	55	36	300 D
Acenaphthene	UG/L	-	10 U	8 J	3 J	2 J	7 J
Acenaphthylene	UG/L	-	10 U	76	21	23	69
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	18	8 J	4 J	6 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	1,300 D	240 D	530 D	1,300 DJ
Phenanthrene	UG/L	-	10 U	14	5 J	4 J	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	1,576	332	599	1,682

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Advanced Selection: POI DUSR Tbl G-2(1)
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-100	HISB-100	HISB-100
Sample ID			HISB-100/GW/30-34	HISB-100/GW/40-44	HISB-100/GW/50-54	HISB-100/GW/60-64	20081121-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			11/19/08	11/19/08	11/19/08	11/19/08	11/21/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	112	NA	16.6	NA	NA
Nitrate-Nitrogen	MG/L	-	3.92	NA	0.11	NA	NA
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	NA
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #05/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

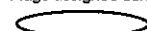
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-101	HISB-101	HISB-101
Sample ID			HISB-100/GW/70-74	HISB-100/GW/80-84	20081119-FD-1	HISB-101/GW/30-34	HISB-101/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	30.0-34.0	40.0-44.0
Date Sampled			11/21/08	11/21/08	11/19/08	11/19/08	11/19/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	490 DJ	12 J	46	49	7,400 D
Ethylbenzene	UG/L	-	3 J	2 J	4	5	1,000 D
Toluene	UG/L	-	14 J	3 J	5	7	3,400 D
Xylene (total)	UG/L	-	240 J	5 J	58	61	2,300 D
Total BTEX	UG/L	100	747	22	113	122	14,100
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	330 D	3 J	24	31	620 D
Acenaphthene	UG/L	-	7 J	10 U	4 J	6 J	12
Acenaphthylene	UG/L	-	67	10 U	27	35	250 DJ
Anthracene	UG/L	-	10 U	10 U	1 J	2 J	5 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	5 J	10 U	6 J	8 J	32
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	1,400 DJ	18 J	62	96 D	3,400 D
Phenanthrene	UG/L	-	10 U	10 U	8 J	11	37
Pyrene	UG/L	-	10 U	10 U	10 U	1 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,809	21	132	190	4,356

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit, J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value, D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected, R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #08/01/08# AND #08/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-100	HISB-100	HISB-101	HISB-101	HISB-101
Sample ID			HISB-100/GW/70-74	HISB-100/GW/80-84	20081119-FD-1	HISB-101/GW/30-34	HISB-101/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	30.0-34.0	40.0-44.0
Date Sampled			11/21/08	11/21/08	11/19/08	11/19/08	11/19/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	24.2	31.8	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	0.22	0.32	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND (LOGDATE) BETWEEN #09/01/09# AND #09/23/09# AND (([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

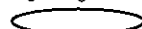
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-101	HISB-101	HISB-101	HISB-101	HISB-102
Sample ID			HISB-101/GW/50-54	HISB-101/GW/60-64	HISB-101/GW/70-74	HISB-101/GW/80-84	HISB-102/GW/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0
Date Sampled			11/19/08	11/19/08	11/20/08	11/20/08	12/01/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	2,300 D	1,200 D	1	1 U	27 J
Ethylbenzene	UG/L	-	300 D	71	1 U	1 U	500 DJ
Toluene	UG/L	-	340 D	94	3	1	73 J
Xylene (total)	UG/L	-	1,100 D	630 D	1 U	1 U	1,200 DJ
Total BTEX	UG/L	100	4,040	1,995	4	1	1,800
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	140 DJ	18	10 U	10 U	380 DJ
Acenaphthene	UG/L	-	15	9 J	10 U	10 U	28
Acenaphthylene	UG/L	-	210 DJ	120 DJ	10 U	10 U	46
Anthracene	UG/L	-	6 J	10 U	10 U	10 U	5 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	39	18	10 U	10 U	24
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2,800 D	1,900 D	4 J	2 J	2,200 D
Phenanthrene	UG/L	-	34	9 J	10 U	10 U	23
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	3,244	2,074	4	2	2,706

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

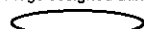
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-101	HISB-101	HISB-101	HISB-101	HISB-102
Sample ID			HISB-101/GW/50-54	HISB-101/GW/60-64	HISB-101/GW/70-74	HISB-101/GW/80-84	HISB-102/GW/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0
Date Sampled			11/19/08	11/19/08	11/20/08	11/20/08	12/01/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	143	NA	NA	NA	97.5
Nitrate-Nitrogen	MG/L	-	0.29	NA	NA	NA	0.12
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	0.05 U	NA	NA	NA	0.08

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/26/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102	HISB-102	HISB-102	HISB-102	HISB-102
Sample ID			HISB-102/GW/40-44	HISB-102/GW/50-54	HISB-102/GW/60-64	HISB-102/GW/70-74	HISB-102/GW/80-84
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0
Date Sampled			12/01/08	12/01/08	12/01/08	12/02/08	12/02/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	39 J	1 U	1 U	1 U	2
Ethylbenzene	UG/L	-	440 DJ	3	1 U	1	22
Toluene	UG/L	-	16 J	2	1 U	1 U	18
Xylene (total)	UG/L	-	340 DJ	220	1 U	1 U	34
Total BTEX	UG/L	100	835	225	ND	1	76
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	140 DJ	470 DJ	3 J	10 U	16
Acenaphthene	UG/L	-	110 DJ	17	10 U	10 U	3 J
Acenaphthylene	UG/L	-	33	190 DJ	2 J	10 U	6 J
Anthracene	UG/L	-	13	2 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	3 J	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	53	41	10 U	10 U	2 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	700 D	2,000 D	5 J	4 J	100 D
Phenanthrene	UG/L	-	64	13	10 U	10 U	3 J
Pyrene	UG/L	-	3 J	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1,119	2,735	10	4	130

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102	HISB-102	HISB-102	HISB-102	HISB-102
Sample ID			HISB-102/GW/40-44	HISB-102/GW/50-54	HISB-102/GW/60-64	HISB-102/GW/70-74	HISB-102/GW/80-84
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0
Date Sampled			12/01/08	12/01/08	12/01/08	12/02/08	12/02/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	49.8	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	0.54	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	0.1 U	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #06/01/08# AND #06/23/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

Advanced Selection: PDI DUSR Tbl G-2(1)
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2
Sample ID			HISB-102-2/GW/60-64	HISB-102-2/GW/70-74	HISB-102-2/GW/80-84	HISB-102-2/GW/30-34	HISB-102-2/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0	40.0-44.0
Date Sampled			01/07/09	01/07/09	01/07/09	01/08/09	01/08/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	15 J	R	R	12	23
Ethylbenzene	UG/L	-	4 J	2 J	R	190	250 D
Toluene	UG/L	-	R	R	R	21 J	11 J
Xylene (total)	UG/L	-	49 J	3 J	R	200	180
Total BTEX	UG/L	100	68	5	ND	423	464
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	75	10 U	10 U	120 D	11
Acenaphthene	UG/L	-	9 J	10 U	10 U	25	20
Acenaphthylene	UG/L	-	28	10 U	10 U	20	57
Anthracene	UG/L	-	2 J	10 U	10 U	2 J	2 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	9 J	10 U	10 U	11	17
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	320 D	5 J	1 J	670 D	150 D
Phenanthrene	UG/L	-	10	10 U	10 U	11	17
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	453	5	1	859	274

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#

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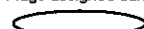
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2	HISB-102-2
Sample ID			HISB-102-2/GW/60-64	HISB-102-2/GW/70-74	HISB-102-2/GW/80-84	HISB-102-2/GW/30-34	HISB-102-2/GW/40-44
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	30.0-34.0	40.0-44.0
Date Sampled			01/07/09	01/07/09	01/07/09	01/08/09	01/08/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

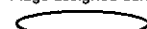
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[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #08/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] = 'HIMW-012T' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/26/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-103	HISB-103	HISB-103	HISB-103
Sample ID			HISB-102-2/GW/50-54	HISB-103/GW/30-34	HISB-103/GW/40-44	HISB-103/GW/50-54	HISB-103/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0
Date Sampled			01/08/09	12/01/08	12/01/08	12/01/08	12/01/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	5 J	1 U	2	3	1 U
Ethylbenzene	UG/L	-	110	1 U	2	1	1 U
Toluene	UG/L	-	4 J	1 U	R	8	1 U
Xylene (total)	UG/L	-	230	1 U	1 U	72	1 U
Total BTEX	UG/L	100	349	ND	4	84	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	30	10 U	10 U	7 J	10 U
Acenaphthene	UG/L	-	23	10 U	10 U	2 J	10 U
Acenaphthylene	UG/L	-	170 D	10 U	10 U	9 J	10 U
Anthracene	UG/L	-	4 J	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	R	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	35	10 U	1 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	360 D	10 U	10 U	150 D	10 U
Phenanthrene	UG/L	-	26	10 U	5 J	3 J	10 U
Pyrene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	652	ND	6	171	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #03/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-0125' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-102-2	HISB-103	HISB-103	HISB-103	HISB-103
Sample ID			HISB-102-2/GW/50-54	HISB-103/GW/30-34	HISB-103/GW/40-44	HISB-103/GW/50-54	HISB-103/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0
Date Sampled			01/08/09	12/01/08	12/01/08	12/01/08	12/01/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	34.6	NA	58.2	NA
Nitrate-Nitrogen	MG/L	-	NA	23.6	NA	0.19	NA
Nitrite-Nitrogen	MG/L	-	NA	0.66	NA	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'WG' AND (LOGDATE) BETWEEN #06/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND ([LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-103	HISB-103	HISB-104	HISB-104	HISB-104
Sample ID			HISB-103/GW/70-74	HISB-103/GW/80-84	HISB-104/30-34	HISB-104/45-49	HISB-104/55-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	45.0-49.0	55.0-59.0
Date Sampled			12/02/08	12/02/08	09/24/08	09/25/08	09/25/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	5	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	5	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 UJ	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Phenanthrene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	9	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-103	HISB-103	HISB-104	HISB-104	HISB-104
Sample ID			HISB-103/GW/70-74	HISB-103/GW/80-84	HISB-104/30-34	HISB-104/45-49	HISB-104/55-59
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	30.0-34.0	45.0-49.0	55.0-59.0
Date Sampled			12/02/08	12/02/08	09/24/08	09/25/08	09/25/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	63.7	NA	15.9
Nitrate-Nitrogen	MG/L	-	NA	NA	4.84	NA	3.66
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105	HISB-105	HISB-105
Sample ID			HISB-105/GW/30-34	HISB-105/GW/40-44	HISB-105/GW/50-54	HISB-105/GW/60-64	HISB-105/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	R	1 U	6 J	3	4 J
Ethylbenzene	UG/L	-	R	1 U	160 J	190	12 J
Toluene	UG/L	-	R	1 U	33 J	230 DJ	4 J
Xylene (total)	UG/L	-	R	1 U	270 J	620 DJ	40 J
Total BTEX	UG/L	100	ND	ND	469	1,043	60
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	2 J	10 U	430 DJ	3 J
Acenaphthene	UG/L	-	10 U	18	10 U	13	1 J
Acenaphthylene	UG/L	-	10 U	44	10 U	180 DJ	12
Anthracene	UG/L	-	10 U	2 J	10 U	2 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	17	10 U	25	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	410 D	10 U	2,400 D	43
Phenanthrene	UG/L	-	10 U	22	10 U	8 J	10 U
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	518	ND	3,058	59

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

MATRIX = 'WG' AND (LOGDATE) BETWEEN #09/01/09# AND #06/23/09# AND ((LOGID) LIKE 'DGP-') OR (LOGID) LIKE 'HISB-') OR (LOGID) = 'HIMW-012' OR (LOGID) = 'HIMW-013' OR (LOGID) = 'HIMW-013S' OR (LOGID) = 'HIMW-020' OR (LOGID) = 'HIMW-020S') AND (LOGDATE) <> #10/24/2008# AND (LOGDATE) <> #10/28/2008#

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105	HISB-105	HISB-105
Sample ID			HISB-105/GW/30-34	HISB-105/GW/40-44	HISB-105/GW/50-54	HISB-105/GW/60-64	HISB-105/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	61.0	NA	90.2
Nitrate-Nitrogen	MG/L	-	NA	NA	0.10	NA	0.13
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Detection Limits shown are PQL

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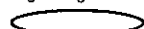
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105/GW/80-84	HISB-105/GW/90-94	HISB-105-2/GW/30-34	HISB-105-2/GW/40-44	HISB-105-2/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	7.0	5.7	R	R	9 J
Ethylbenzene	UG/L	-	99	8.6	3 J	4 J	70 J
Toluene	UG/L	-	2.6	9.9	5 J	2 J	18 J
Xylene (total)	UG/L	-	170	24	7 J	8 J	150 J
Total BTEX	UG/L	100	278.6	48.2	15	14	247
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	77 DJ	5 J	10 U	3 J	55
Acenaphthene	UG/L	-	9 J	10 U	10 U	10 U	11
Acenaphthylene	UG/L	-	91 DJ	3 J	1 J	2 J	39
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	13	10 U	10 U	10 U	4 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	380 D	91 D	18 J	30 J	800 DJ
Phenanthrene	UG/L	-	6 J	10 U	10 U	10 U	2 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	576	99	19	35	912

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOGID] LIKE 'DGP-' OR [LOGID] LIKE 'HISB-' OR [LOGID] = 'HIMW-012' OR [LOGID] = 'HIMW-013' OR [LOGID] = 'HIMW-0135' OR [LOGID] = 'HIMW-020' OR [LOGID] = 'HIMW-0205') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/26/2008#)

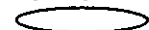
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105	HISB-105	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105/GW/80-84	HISB-105/GW/90-94	HISB-105-2/GW/30-34	HISB-105-2/GW/40-44	HISB-105-2/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #03/01/08# AND #06/23/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <=> #10/24/2008# AND [LOGDATE] <=> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105-2/GW/60-64	HISB-105-2/GW/70-74	HISB-105-2/GW/80-84	HISB-105-2/GW/90-94	HISB-105-2/GW/100-104
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			12/18/08	12/18/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	2 J	3 J	3 J	11 J	R
Ethylbenzene	UG/L	-	130 J	15 J	2 J	R	R
Toluene	UG/L	-	88 J	3 J	2 J	2 J	1 J
Xylene (total)	UG/L	-	340 DJ	38 J	7 J	11 J	R
Total BTEX	UG/L	100	560	59	14	24	1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	390 DJ	2 J	8 J	29	10 U
Acenaphthene	UG/L	-	33	3 J	2 J	10 U	10 U
Acenaphthylene	UG/L	-	180 DJ	8 J	6 J	2 J	10 U
Anthracene	UG/L	-	2 J	R	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 UJ	R	10 UJ	10 UJ	10 UJ
Benzo(g,h,i)perylene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	R	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	R	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	R	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	R	10 U	10 U	10 U
Fluorene	UG/L	-	30	1 J	1 J	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Naphthalene	UG/L	-	2,300 D	18	52 J	190 DJ	10 UJ
Phenanthrene	UG/L	-	6 J	2 J	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	2,941	34	69	221	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'WG' AND (LOGDATE) BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND (LOGDATE) <= #10/24/2008# AND (LOGDATE) <= #10/28/2008#

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2	HISB-105-2
Sample ID			HISB-105-2/GW/60-64	HISB-105-2/GW/70-74	HISB-105-2/GW/80-84	HISB-105-2/GW/90-94	HISB-105-2/GW/100-104
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			12/18/08	12/18/08	12/18/08	12/18/08	12/18/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #09/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

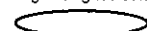
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-106	HISB-106	HISB-106
Sample ID			HISB-106/GW/30-34	HISB-106/GW/40-44	HISB-106/GW/50-54	HISB-106/GW/60-64	HISB-106/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	46	590 D	660 DJ	480 DJ	30
Ethylbenzene	UG/L	-	3.0	480 D	40 J	6.6 J	7.3
Toluene	UG/L	-	19	1.8	160 J	38 J	3.7
Xylene (total)	UG/L	-	350 D	90	940 DJ	290 J	27
Total BTEX	UG/L	100	418	1,161.8	1,800	814.6	68
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	32	10 U	310 DJ	4 J	2 J
Acenaphthene	UG/L	-	11	20	40	8 J	1 J
Acenaphthylene	UG/L	-	27	48	120 DJ	23	3 J
Anthracene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	10 U	10 U	10 U
Fluorene	UG/L	-	14	18	25	5 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	510 D	270 D	2,000 D	530 D	45
Phenanthrene	UG/L	-	8 J	22	18	2 J	10 U
Pyrene	UG/L	-	10 U	2 J	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	602	383	2,513	572	51

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-106	HISB-106	HISB-106
Sample ID			HISB-106/GW/30-34	HISB-106/GW/40-44	HISB-106/GW/50-54	HISB-106/GW/60-64	HISB-106/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/04/08	12/04/08	12/04/08	12/04/08	12/04/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	50.6	NA	23.6
Nitrate-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.13
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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 Concentration Exceeds Criteria

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UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = "WG" AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE "DGP-" OR [LOCID] LIKE "HISB-" OR [LOCID] = "HIMW-012" OR [LOCID] = "HIMW-013" OR [LOCID] = "HIMW-013S" OR [LOCID] = "HIMW-020" OR [LOCID] = "HIMW-020S") AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

Advanced Selection: PDI DUSR TBI G-2(1)
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-107	HISB-107	HISB-107
Sample ID			HISB-106/GW/80-84	HISB-106/GW/90-94	HISB-107/GW/30-34	HISB-107/GW/40-44	20081208-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/08/08	12/08/08	12/08/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	16	56	1 U	6.6	17
Ethylbenzene	UG/L	-	4.5	11	1 U	170	330 D
Toluene	UG/L	-	2.6	8.7	1 U	1.9	13
Xylene (total)	UG/L	-	15	48	1 U	38	190
Total BTEX	UG/L	100	38.1	123.7	ND	216.5	550
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	2 J	6 J	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	3 J	10 U	12	60
Acenaphthylene	UG/L	-	1 J	5 J	10 U	7 J	33
Anthracene	UG/L	-	10 U	12 U	10 U	1 J	7 J
Benzo(a)anthracene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	12 U	10 U	10 U	2 J
Fluorene	UG/L	-	10 U	2 J	10 U	5 J	35
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	12 U	10 U	10 U	10 U
Naphthalene	UG/L	-	27	80	10 U	11	68
Phenanthrene	UG/L	-	10 U	2 J	10 U	11	42
Pyrene	UG/L	-	10 U	12 U	10 U	10 U	2 J
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	30	98	ND	47	249

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #06/01/08# AND #06/23/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-0125' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/29/2008#)

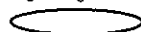
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	HISB-106	HISB-107	HISB-107	HISB-107
Sample ID			HISB-106/GW/80-84	HISB-106/GW/90-94	HISB-107/GW/30-34	HISB-107/GW/40-44	20081208-FD-1
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/05/08	12/05/08	12/08/08	12/08/08	12/08/08
Parameter	Units	Criteria*					Field Duplicate (1-1)
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	76.2
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	0.11
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-2(r1)
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #08/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-107	HISB-107	HISB-107	HISB-107	HISB-107
Sample ID			HISB-107/GW/50-54	HISB-107/GW/60-64	HISB-107/GW/70-74	HISB-107/GW/80-84	HISB-107/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0
Date Sampled			12/08/08	12/08/08	12/09/08	12/09/08	12/09/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	17	3.7	1 U	1 U	1.6
Ethylbenzene	UG/L	-	340 D	8.3	1 U	1 U	11
Toluene	UG/L	-	14	2.6	1 U	1 U	2.4
Xylene (total)	UG/L	-	180	14	1 U	1 U	9.3
Total BTEX	UG/L	100	551	28.6	ND	ND	24.3
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	65	24	10 U	10 U	10 U
Acenaphthylene	UG/L	-	34	19	10 U	10 U	10 U
Anthracene	UG/L	-	8 J	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	37	14	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	70	4 J	10 U	10 U	8 J
Phenanthrene	UG/L	-	49	7 J	10 U	10 U	10 U
Pyrene	UG/L	-	2 J	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	267	68	ND	ND	8

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

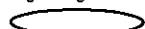
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] = 'HIMW-012F' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013F' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020F' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/29/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-107	HISB-107	HISB-107	HISB-107	HISB-107
Sample ID			HISB-107/GW/50-54	HISB-107/GW/60-64	HISB-107/GW/70-74	HISB-107/GW/80-84	HISB-107/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			50.0-54.0	60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0
Date Sampled			12/08/08	12/08/08	12/09/08	12/09/08	12/09/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	73.8	NA	24.3	NA	NA
Nitrate-Nitrogen	MG/L	-	0.11	NA	0.17	NA	NA
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	NA
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#)

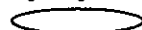
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-108	HISB-108	HISB-108
Sample ID			HISB-108/GW/30-34	HISB-108/GW/40-44	HISB-108/GW/50-54	HISB-108/GW/60-64	HISB-108/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/09/08	12/09/08	12/09/08	12/09/08	12/10/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1.4
Toluene	UG/L	-	1 U	1 U	1 U	1 U	3.7
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	7.0
Total BTEX	UG/L	100	ND	ND	ND	ND	12.1
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 U	10 U	10 U	10 U	1 J
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	ND	1

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-015' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-108	HISB-108	HISB-108
Sample ID			HISB-108/GW/30-34	HISB-108/GW/40-44	HISB-108/GW/50-54	HISB-108/GW/60-64	HISB-108/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/09/08	12/09/08	12/09/08	12/09/08	12/10/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	11.8	NA	24.4
Nitrate-Nitrogen	MG/L	-	NA	NA	3.28	NA	2.82
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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 [MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-109	HISB-109	HISB-109
Sample ID			HISB-108/GW/80-84	HISB-108/GW/90-94	HISB-109/GW/30-34	HISB-109/GW/40-44	HISB-109/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/10/08	12/10/08	12/10/08	12/10/08	12/10/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	R	R	R	1 U
Ethylbenzene	UG/L	-	2.5	2.7 J	R	R	1.0
Toluene	UG/L	-	7.5	10 J	R	R	3.9
Xylene (total)	UG/L	-	10	13 J	R	R	2.6
Total BTEX	UG/L	100	20	25.7	ND	ND	7.5
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	R	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	R	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	R	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	R	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	R	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	R	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	R	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	R	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	R	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Naphthalene	UG/L	-	1 J	1 J	10 UJ	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	R	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	R	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	1	1	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HSB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-108	HISB-108	HISB-109	HISB-109	HISB-109
Sample ID			HISB-108/GW/80-84	HISB-108/GW/90-94	HISB-109/GW/30-34	HISB-109/GW/40-44	HISB-109/GW/50-54
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	50.0-54.0
Date Sampled			12/10/08	12/10/08	12/10/08	12/10/08	12/10/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	28.1
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	2.46
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	0.1 U
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

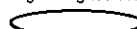
Advanced Selection: PDI DUSR Tol G-2(r1)
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #08/01/08# AND #08/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012F' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013F' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020F' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-109	HISB-109	HISB-109	HISB-109	HISB-114
Sample ID			HISB-109/GW/60-64	HISB-109/GW/70-74	HISB-109/GW/80-84	HISB-109/GW/90-94	HISB-114/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	90.0-94.0
Date Sampled			12/10/08	12/11/08	12/11/08	12/11/08	12/22/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	R	1 U
Ethylbenzene	UG/L	-	2.2	3.0	3.6	R	1 U
Toluene	UG/L	-	7.9	12	11	R	1 U
Xylene (total)	UG/L	-	9.3	13	16	R	1 U
Total BTEX	UG/L	100	19.4	28	30.6	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 UJ	10 UJ	2 J	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	2	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #08/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/28/2008#

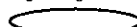
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-109	HISB-109	HISB-109	HISB-109	HISB-114
Sample ID			HISB-109/GW/60-64	HISB-109/GW/70-74	HISB-109/GW/80-84	HISB-109/GW/90-94	HISB-114/GW/90-94
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			60.0-64.0	70.0-74.0	80.0-84.0	90.0-94.0	90.0-94.0
Date Sampled			12/10/08	12/11/08	12/11/08	12/11/08	12/22/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	31	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	2.21	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	0.1 U	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	0.05 U	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI QUSR Tol G-2(r1)
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(MATRIX) = 'WG' AND (LOGDATE) BETWEEN #06/01/08# AND #06/23/09# AND (([LOCID] LIKE 'DGP-') OR ([LOCID] LIKE 'HISB-') OR ([LOCID] = 'HIMW-012' OR ([LOCID] = 'HIMW-012S' OR ([LOCID] = 'HIMW-013' OR ([LOCID] = 'HIMW-013S' OR ([LOCID] = 'HIMW-020' OR ([LOCID] = 'HIMW-020S') AND (LOGDATE) <= #10/24/2008# AND (LOGDATE) <= #10/29/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-114	HISB-114	HISB-114
Sample ID			HISB-114/GW/30-34	HISB-114/GW/40-44	DUP-1 12232008	HISB-114/GW/50-54	HISB-114/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	50.0-54.0	60.0-64.0
Date Sampled			12/23/08	12/23/08	12/23/08	12/23/08	12/23/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Acenaphthylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Phenanthrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/06# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND [LOGDATE] <= #10/24/2008# AND [LOGDATE] <= #10/25/2008#

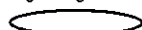
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-114	HISB-114	HISB-114
Sample ID			HISB-114/GW/30-34	HISB-114/GW/40-44	DUP-1 12232008	HISB-114/GW/50-54	HISB-114/GW/60-64
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			30.0-34.0	40.0-44.0	50.0-54.0	50.0-54.0	60.0-64.0
Date Sampled			12/23/08	12/23/08	12/23/08	12/23/08	12/23/08
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	75.0	70.0	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	3.11	3.66	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	0.1 U	0.1 U	NA
Phosphate (ortho)	MG/L	-	NA	NA	0.05 U	0.05 U	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-2(r1)
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND (([LOCID] LIKE 'DGP-') OR [LOCID] LIKE 'HISB-') OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-115	HISB-115	HISB-115
Sample ID			HISB-114/GW/70-74	HISB-114/GW/80-84	HISB-115/GW/50-54	HISB-115/GW/60-64	HISB-115/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/23/08	12/23/08	01/14/09	01/14/09	01/14/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	210 DJ	38 J	510 DJ
Ethylbenzene	UG/L	-	1 U	1 U	3 J	63 J	510 DJ
Toluene	UG/L	-	1 U	1 U	2 J	1 J	11 J
Xylene (total)	UG/L	-	1 U	1 U	73 J	23 J	380 J
Total BTEX	UG/L	100	ND	ND	288	125	1,411
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	4 J	4 J	46
Acenaphthene	UG/L	-	10 U	10 U	10	8 J	10
Acenaphthylene	UG/L	-	10 U	10 U	57	49	130 DJ
Anthracene	UG/L	-	10 U	10 U	4 J	5 J	2 J
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	2 J	3 J	10 U
Fluorene	UG/L	-	10 U	10 U	8 J	14	25
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	10 UJ	10 UJ	150 D	16	920 D
Phenanthrene	UG/L	-	10 U	10 U	27 J	30 J	20 J
Pyrene	UG/L	-	10 U	10 U	3 J	4 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	ND	ND	265	133	1,153

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #05/01/06# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012F' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013F' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020F' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-114	HISB-114	HISB-115	HISB-115	HISB-115
Sample ID			HISB-114/GW/70-74	HISB-114/GW/80-84	HISB-115/GW/50-54	HISB-115/GW/60-64	HISB-115/GW/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			70.0-74.0	80.0-84.0	50.0-54.0	60.0-64.0	70.0-74.0
Date Sampled			12/23/08	12/23/08	01/14/09	01/14/09	01/14/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	34.1	NA	138	NA	112
Nitrate-Nitrogen	MG/L	-	0.70	NA	0.46	NA	0.28
Nitrite-Nitrogen	MG/L	-	0.1 U	NA	0.1 U	NA	0.1 U
Phosphate (ortho)	MG/L	-	0.05 U	NA	0.05 U	NA	0.05 U

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tol G-2(r1)
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[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-115	HISB-115	HISB-115	HISB-115	HISB-116
Sample ID			HISB-115/GW/80-84	HISB-115/GW/90-94	HISB-115/GW/30-34	HISB-115/GW/40-44	HISB-116/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	30.0-34.0
Date Sampled			01/14/09	01/14/09	01/15/09	01/15/09	06/23/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Benzene	UG/L	-	20 J	23 J	R	6 J	1 U
Ethylbenzene	UG/L	-	89 J	14 J	R	1 J	1 U
Toluene	UG/L	-	1 J	3 J	R	R	1 U
Xylene (total)	UG/L	-	13 J	16 J	R	2 J	1 U
Total BTEX	UG/L	100	123	56	ND	9	ND
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	4 J	10 U	10 U	10 U
Acenaphthene	UG/L	-	10	6 J	10 U	10 U	10 U
Acenaphthylene	UG/L	-	62	22	10 U	1 J	10 U
Anthracene	UG/L	-	1 J	3 J	4 J	1 J	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	1 J	2 J	10 U	10 U
Fluorene	UG/L	-	15	5 J	1 J	2 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2 J	14	10 U	2 J	1 J
Phenanthrene	UG/L	-	9 J	10 J	5 J	6 J	10 U
Pyrene	UG/L	-	10 U	2 J	3 J	2 J	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	99	67	15	14	1

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-0135' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-0205') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

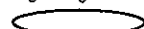
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-115	HISB-115	HISB-115	HISB-115	HISB-116
Sample ID			HISB-115/GW/80-84	HISB-115/GW/90-94	HISB-115/GW/30-34	HISB-115/GW/40-44	HISB-116/30-34
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	30.0-34.0	40.0-44.0	30.0-34.0
Date Sampled			01/14/09	01/14/09	01/15/09	01/15/09	06/23/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = "WG" AND ([LOGDATE] BETWEEN #08/01/08# AND #06/23/09# AND ([LOCID] LIKE "DGP-" OR [LOCID] LIKE "HISB-" OR [LOCID] = "HIMW-012" OR [LOCID] = "HIMW-012S" OR [LOCID] = "HIMW-013" OR [LOCID] = "HIMW-013S" OR [LOCID] = "HIMW-020" OR [LOCID] = "HIMW-020S") AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/40-44	HISB-116/50-54	20030623-FD-1	HISB-116/60-64	HISB-116/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	60.0-64.0	70.0-74.0
Date Sampled			06/23/09	06/23/09	06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	21	20	2
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1	82	77	4
Total BTEX	UG/L	100	ND	1	103	97	6
Semivolatile Organic Compounds							
2-Methylnaphthalene	UG/L	-	10 U	10 U	2 J	2 J	10 U
Acenaphthene	UG/L	-	10 U	10 U	10	10	4 J
Acenaphthylene	UG/L	-	1 J	4 J	110 D	110 D	25
Anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Fluorene	UG/L	-	10 U	10 U	10	10	2 J
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Naphthalene	UG/L	-	2 J	2 J	91 D	79	12
Phenanthrene	UG/L	-	10 U	10 U	1 J	2 J	5 J
Pyrene	UG/L	-	10 U	10 U	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	3	6	224	213	48

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND ([LOGDATE] BETWEEN #09/01/09# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

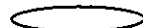
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/40-44	HISB-116/60-64	20090623-FD-1	HISB-116/60-64	HISB-116/70-74
Matrix			Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Depth Interval (ft)			40.0-44.0	50.0-54.0	60.0-64.0	60.0-64.0	70.0-74.0
Date Sampled			06/23/09	06/23/09	06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			Field Duplicate (1-1)		
Miscellaneous Parameters							
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/80-84	HISB-116/90-94	HISB-116/100-104
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			
Volatile Organic Compounds					
Benzene	UG/L	-	7	10	29
Ethylbenzene	UG/L	-	28	2	5
Toluene	UG/L	-	1 U	6	47
Xylene (total)	UG/L	-	56	82	210
Total BTEX	UG/L	100	91	100	291
Semivolatile Organic Compounds					
2-Methylnaphthalene	UG/L	-	26	5 J	13
Acenaphthene	UG/L	-	15	7 J	2 J
Acenaphthylene	UG/L	-	120 D	31	41
Anthracene	UG/L	-	10 U	10 U	10 U
Benzo(a)anthracene	UG/L	-	10 U	10 U	10 U
Benzo(a)pyrene	UG/L	-	10 U	10 U	10 U
Benzo(b)fluoranthene	UG/L	-	10 U	10 U	10 U
Benzo(g,h,i)perylene	UG/L	-	10 U	10 U	10 U
Benzo(k)fluoranthene	UG/L	-	10 U	10 U	10 U
Chrysene	UG/L	-	10 U	10 U	10 U
Dibenz(a,h)anthracene	UG/L	-	10 U	10 U	10 U
Fluoranthene	UG/L	-	10 U	10 U	10 U
Fluorene	UG/L	-	19	4 J	10 U
Indeno(1,2,3-cd)pyrene	UG/L	-	10 U	10 U	10 U
Naphthalene	UG/L	-	180 D	540 D	780 D
Phenanthrene	UG/L	-	9 J	10 U	10 U
Pyrene	UG/L	-	10 U	10 U	10 U
Total Polynuclear Aromatic Hydrocarbons	UG/L	100	369	587	836

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #09/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <= #10/24/2008# AND [LOGDATE] <> #10/28/2008#)

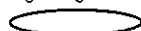
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TABLE G-2
VALIDATED GROUNDWATER SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-116	HISB-116	HISB-116
Sample ID			HISB-116/80-84	HISB-116/90-94	HISB-116/100-104
Matrix			Groundwater	Groundwater	Groundwater
Depth Interval (ft)			80.0-84.0	90.0-94.0	100.0-104.0
Date Sampled			06/23/09	06/23/09	06/23/09
Parameter	Units	Criteria*			
Miscellaneous Parameters					
Alkalinity, Total (as CaCO ₃)	MG/L	-	NA	NA	NA
Nitrate-Nitrogen	MG/L	-	NA	NA	NA
Nitrite-Nitrogen	MG/L	-	NA	NA	NA
Phosphate (ortho)	MG/L	-	NA	NA	NA

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter. ND - Not detected. R - The data is rejected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WG' AND [LOGDATE] BETWEEN #06/01/08# AND #06/23/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] = 'HIMW-012I' OR [LOCID] = 'HIMW-012S' OR [LOCID] = 'HIMW-013I' OR [LOCID] = 'HIMW-013S' OR [LOCID] = 'HIMW-020I' OR [LOCID] = 'HIMW-020S') AND ([LOGDATE] <> #10/24/2008# AND [LOGDATE] <> #10/29/2008#)

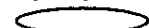
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27'-30'	DGP-206/25'-28'	DGP-207/25'-29'	DGP-208/28.5'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	0.012 U	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	0.012 U	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	0.012 U	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	0.012 U	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	0.012 U	NA	NA	NA	NA
2-Hexanone	MG/KG	-	0.012 UJ	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	0.012 U	NA	NA	NA	NA
Acetone	MG/KG	-	0.007 J	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.012 U	42 D	0.060 U	1 DJ	0.060 U
Bromodichloromethane	MG/KG	-	0.012 U	NA	NA	NA	NA
Bromoform	MG/KG	-	0.012 U	NA	NA	NA	NA
Bromomethane	MG/KG	-	0.012 UJ	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	0.012 U	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	0.012 U	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	0.012 U	NA	NA	NA	NA
Chloroethane	MG/KG	-	0.012 U	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

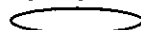
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27'-30'	DGP-206/25'-28'	DGP-207/25'-29'	DGP-208/28.5'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	0.012 U	NA	NA	NA	NA
Chloromethane	MG/KG	-	0.012 U	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	0.012 U	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.012 U	34 D	0.9	25 D	0.065
Methyl ethyl ketone (2-Butanone)	MG/KG	-	0.012 UJ	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	0.012 U	NA	NA	NA	NA
Methylene chloride	MG/KG	-	0.012 UJ	NA	NA	NA	NA
Styrene	MG/KG	-	0.004 J	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	0.012 U	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.004 J	120 D	0.34	47 D	0.060 U
Trichloroethene	MG/KG	-	0.012 U	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	0.012 U	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.006 J	310 D	21 D	240 D	0.23 J
Total BTEX	MG/KG	50	0.01	506	22.24	313	0.295
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

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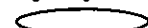
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-.' OR [LOCID] LIKE 'HISB-.' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	0.38 UJ	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	0.96 U	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	0.38 U	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	0.38 U	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	0.38 UJ	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	0.96 UJ	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	0.38 U	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	0.38 U	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	0.38 U	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	0.38 U	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	0.18 J	860 D	650 D	960 D	150 D
2-Methylphenol (o-cresol)	MG/KG	-	0.38 UJ	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	0.96 UJ	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	0.38 U	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	0.38 U	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	0.96 UJ	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	0.96 U	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	0.38 U	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	0.38 U	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	0.38 U	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	0.38 U	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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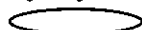
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	0.38 U	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	0.96 U	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	0.96 UJ	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	0.38 U	62 DJ	53 DJ	75 DJ	23 DJ
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	0.38 U	390 D	270 D	400 D	78 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	0.38 U	230 D	170 DJ	230 D	77 D
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	0.38 U	120 D	95 DJ	120 D	41 D
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	0.38 U	78 DJ	55 DJ	66 DJ	24 DJ
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	0.38 U	52 DJ	32 J	42 DJ	17 DJ
Benzo(g,h,i)perylene	MG/KG	-	0.38 U	25 DJ	7.6 J	8.3 J	2.9 J
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	0.38 U	21 DJ	12 J	11 J	6.6 J
bis(2-Chloroethoxy)methane	MG/KG	-	0.38 UJ	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	0.38 UJ	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	0.38 UJ	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27'-30'	DGP-206/25'-28'	DGP-207/25'-29'	DGP-208/28.5'-30'
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	0.38 U	NA	NA	NA	NA
Carbazole	MG/KG	-	0.38 U	NA	NA	NA	NA
Chrysene	MG/KG	-	0.38 U	120 D	94 DJ	120 D	46 D
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.38 U	5.6 J	3.5 J	4.2 J	1.8 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	0.38 U	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	0.38 U	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	0.38 U	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	0.38 U	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	0.38 U	NA	NA	NA	NA
Fluoranthene	MG/KG	-	0.38 U	250 D	170 DJ	200 D	69 D
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	0.38 U	250 D	200 D	270 D	82 D
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	0.38 U	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	0.38 U	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	0.38 UJ	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.38 U	21 DJ	8.2 J	8.4 J	3 J
Isophorone	MG/KG	-	0.38 UJ	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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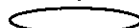
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39"	DGP-205/27'-30"	DGP-206/25'-28"	DGP-207/25'-29"	DGP-208/28.5'-30"
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	0.39	1,200 D	560 D	1,200 D	4.4
Nitrobenzene	MG/KG	-	0.38 U	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	0.38 U	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	0.38 U	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	0.96 U	NA	NA	NA	NA
Phenanthrene	MG/KG	-	0.38 U	800 D	590 D	780 D	230 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	0.38 U	NA	NA	NA	NA
Pyrene	MG/KG	-	0.38 U	320 D	240 D	280 D	98 D
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	0.57	4,804.6	3,210.3	4,774.9	953.7
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

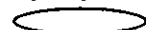
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 (MATRIX) = 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND ((LOCID) LIKE 'DGP-'' OR (LOCID) LIKE 'HISB-'' OR (LOCID) LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-203	DGP-205	DGP-206	DGP-207	DGP-208
Sample ID			DGP-203/35'-39'	DGP-205/27-30	DGP-206/25-28	DGP-207/25-29	DGP-208/28.5-30
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.0-39.0	27.0-30.0	25.0-28.0	25.0-29.0	28.5-30.0
Date Sampled			10/28/08	01/17/09	11/12/08	01/17/09	11/12/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	13.4	19.2	15.6	16.8	16.7
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-3(1)

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #06/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.004 J	0.005 J	0.012 U	0.012 U	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

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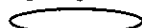
[MATRIX] = 'SO' AND ([LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.036	17 D	1.1 D	0.031	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.048	0.061	0.015	0.012 U	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.11	20 D	1.7 D	0.054	NA
Total BTEX	MG/KG	50	0.198	37.066	2.815	0.085	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	3.2 J	88 D	88 D	500 D	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-#' OR [LOCID] LIKE 'HISB-#' OR [LOCID] LIKE 'ISS-#')

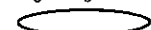
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	9.2	21	38	30	NA
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	27	3 J	5.2	200 D	NA
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	26	16	29	120 D	NA
Benzo(a)anthracene	MG/KG	-	23	9.7	25	49	NA
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	9.9	5.3	13	39	NA
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	8.4	3.5	10	22	NA
Benzo(g,h,i)perylene	MG/KG	-	1.7 J	1 J	2.7 J	8.6	NA
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	3.4 J	2.3 J	4.7 J	9.9 J	NA
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

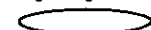
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-') OR [LOCID] LIKE 'HISB-') OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	23	8.5	22	42	NA
Dibenz(a,h)anthracene	MG/KG	-	0.96 J	3.5 U	1.4 J	3 J	NA
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	31	15	38	110 D	NA
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	31	17	31	150 D	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	1.8 J	1.1 J	3.2 J	7.7	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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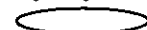
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	3.8 U	96 D	72 D	100 D	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	51	50	120 D	460 D	NA
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	45	21	47	180 D	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	295.56	358.4	550.2	2,031.2	NA
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	0.61 U
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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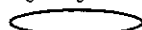
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-211' OR [LOCID] LIKE 'HISB-211' OR [LOCID] LIKE '155')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-211	DGP-217	DGP-217	DGP-234	DGP-234
Sample ID			DGP-211 28'-30'	DGP-217/20-25	DGP-217/30-35	DGP-234/23-25	DGP-234/38-39
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			28.0-30.0	20.0-25.0	30.0-35.0	23.0-25.0	38.0-39.0
Date Sampled			10/22/08	10/16/08	10/17/08	11/06/08	11/06/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	13.3	4.72	13.1	16.5	17.5
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

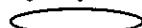
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.015 J	0.013 J	0.12 U	0.012 U	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	57 D	8.5 D	11 D	0.003 J	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.079 J	0.026 J	0.033 J	0.019 J	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	35 D	5.9 D	11 D	0.03 J	NA
Total BTEX	MG/KG	50	92.094	14.439	22.033	0.052	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	830 D	21 D	0.13 J	210 D	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

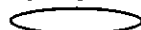
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[MATRIX] = "SO" AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE "DGP-*" OR [LOCID] LIKE "HISB-*" OR [LOCID] LIKE "ISS")

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	210 D	5	0.86	19 DJ	NA
Acenaphthylene	MG/KG	-	41 DJ	2.5	0.21 J	91 D	NA
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	190 D	5.8	1.5	110 D	NA
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	170 D	4.6 J	1.6	67 D	NA
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	100 D	3.7 J	0.89	37 D	NA
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	62 DJ	2.9 J	0.64	22 DJ	NA
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	29 DJ	0.84 J	0.28 J	12 DJ	NA
Benzo(k)fluoranthene	MG/KG	-	32 DJ	1.1 J	0.34 J	9.9 DJ	NA
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09_ Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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(MATRIX = 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND (LOCID) LIKE 'DGP-' OR (LOCID) LIKE 'HISB-' OR (LOCID) LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	190 D	4.6 J	1.5	58 D	NA
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	7.6 J	0.36 J	0.097 J	36 U	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	280 D	5.6	2.6	120 D	NA
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	290 D	5.9	0.98	140 D	NA
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	23 DJ	0.78 J	0.26 J	9.7 DJ	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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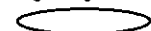
[MATRIX] = 'SO' AND ([LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-'' OR [LOCID] LIKE 'HISB-'' OR [LOCID] LIKE 'ISS'))

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	500 D	9.7	0.1 J	10 DJ	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	1,000 D	24 D	3.8	440 D	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	410 D	9.5	3.4	180 D	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	4,364.6	107.88	19.187	1,535.6	NA
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	0.56 U
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

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Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-251	DGP-251	DGP-251	DGP-253	DGP-257
Sample ID			DGP-251/10-13	DGP-251/20-22	DGP-251/25-28	DGP-253/30-35	DGP-257/45-50
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			10.0-13.0	20.0-22.0	25.0-28.0	30.0-35.0	45.0-50.0
Date Sampled			12/29/08	12/29/08	12/29/08	10/09/08	11/20/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	6.3	6.6	18.1	9.4	10.1
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	6.4 J	0.21	0.060 U	0.12 U	0.12 U
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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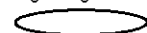
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	68 D	7.2 D	2.8 D	3.5 D	1.8
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	250 D	5.4 D	0.3	1.8 DJ	0.038 J
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	380 D	55 D	32 D	67 D	13 DJ
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	704.4	67.81	35.1	72.3	14.838
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-#' OR [LOCID] LIKE 'HISB-#' OR [LOCID] LIKE 'HS-#')

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	1,700 D	50 D	70 D	780 D	1,100 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

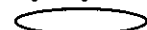
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-36	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	140 DJ	3.5	4.2	47 DJ	55 DJ
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	650 D	20 D	24 D	350 D	410 D
Anthracene	MG/KG	-	380 D	12 D	14 DJ	190 D	210 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	190 DJ	5.9	7.1 DJ	75 DJ	79 DJ
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	100 DJ	2.9	3.4	61 DJ	64 DJ
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	31 D	2.2	2.7	34 DJ	36 DJ
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	4 J	0.47	0.49	8.9 J	19 DJ
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	15 D	0.99 J	0.98 J	6.8 J	11 J
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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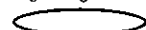
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	210 DJ	5.8	8 DJ	68 DJ	68 DJ
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	5.1 J	0.3 J	0.32 J	3.5 J	3.1 J
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	310 DJ	9.8 D	12 DJ	170 D	180 D
Fluorene	MG/KG	-	460 D	14 D	17 DJ	220 D	250 D
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	9.4 J	0.51	0.56	8.3 J	8 J
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	2,100 D	55 D	85 D	690 D	960 D
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	1,200 D	39 D	47 D	700 D	740 D
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	460 D	15 D	18 DJ	270 D	280 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	7,964.5	237.37	314.75	3,682.5	4,473.1
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevroil Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevroil Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/23/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

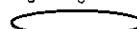
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-261	DGP-262	DGP-263	DGP-264	DGP-265
Sample ID			DGP-261/33-35	DGP-262/32.5-35	DGP-263/30-35	DGP-264/30-34	DGP-265/32.5-33
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	32.5-35.0	30.0-35.0	30.0-34.0	32.5-33.0
Date Sampled			11/12/08	11/12/08	11/13/08	12/30/08	01/05/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	13.7	13.2	16.1	16.7	19.5
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.010 U	0.10 U	0.061 U	0.11 U	0.059 U
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

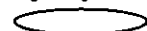
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-26
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.010 U	0.10 U	0.061 U	2.1	0.059 U
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.010 U	0.10 U	0.061 U	1.5	0.059 U
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.010 U	0.10 U	0.061 U	69 D	0.059 U
Total BTEX	MG/KG	50	ND	ND	ND	72.6	ND
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Detection Limits shown are PQL

[MATRIX] = 'SO' AND ([LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

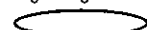
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	0.34 U	0.93	38 DJ	1,900 D	48 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

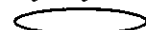
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[MATRIX] = "SO" AND (LOGDATE) BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE "DGP-") OR ([LOCID] LIKE "HISB-") OR ([LOCID] LIKE "ISS")

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	0.34 U	0.34 U	11	93	29 DJ
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	0.34 U	0.2 J	38 DJ	710 D	76 D
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	0.34 U	0.34 U	110 D	460 D	100 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	0.34 U	0.34 U	52 DJ	210 D	56 D
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	0.34 U	0.37	34 DJ	110	46 D
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	0.34 U	0.13 J	22 J	77	28 DJ
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	0.34 U	0.24 J	4.8 J	21	6.1 J
Benzo(k)fluoranthene	MG/KG	-	0.34 U	0.34 U	8.9 J	36 J	6.7 J
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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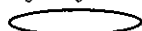
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HIS-*' OR [LOCID] LIKE 'ISS-*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	0.34 U	0.34 U	55 DJ	220 D	53 D
Dibenz(a,h)anthracene	MG/KG	-	0.34 U	0.074 J	2.6 J	10	2.4 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	0.34 U	0.34 U	110 D	460 D	120 D
Fluorene	MG/KG	-	0.34 U	0.34 U	88 D	630 D	100 D
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.34 U	0.23 J	5.4 J	22	6.2 J
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

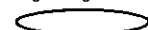
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	0.34 U	2.6	0.89	1,500 D	0.52 J
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	0.34 U	0.088 J	380 D	1,800 D	240 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	0.34 U	0.34 U	160 D	660 D	210 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	ND	4.862	1,120.59	8,919	1,127.92
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

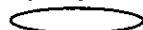
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-266	DGP-267	DGP-270	DGP-271	DGP-272
Sample ID			DGP-266/5-10	DGP-267/15-18	DGP-270/30-31	DGP-271/33-34.5	DGP-272/24-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			5.0-10.0	15.0-18.0	30.0-31.0	33.0-34.5	24.0-25.0
Date Sampled			01/05/09	01/12/09	01/09/09	01/12/09	01/14/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	4.1	3.6	18.6	12	15.8
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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{MATRIX} = 'SO' AND {LOGDATE} BETWEEN #03/01/09# AND #09/28/09# AND ({LOCID} LIKE 'DGP-' OR {LOCID} LIKE 'HSB-' OR {LOCID} LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.011 U	0.062 U	0.03 J	0.012 U	0.002 J
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

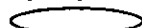
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.011 U	0.043 J	34 D	0.012 U	0.012 U
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.011 U	0.054 J	15 D	0.012 U	0.012 U
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.007 J	22 D	420 D	0.01 J	0.004 J
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	0.007	22.097	469.03	0.01	0.006
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

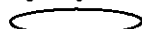
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	0.36 U	110 D	1,500 D	0.45	0.39 U
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOCID] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HIS-*' OR [LOCID] LIKE 'ISS-*')

Advanced Selection: PDI DUSR Tbl G-3(1)
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	0.36 U	6.3	110 DJ	0.39 U	0.39 U
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	0.36 U	35 D	460 D	0.2 J	0.39 U
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	0.36 U	23 D	320 D	0.19 J	0.39 U
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	0.36 U	12 DJ	160 D	0.091 J	0.39 U
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	0.36 U	6.5	86 DJ	0.39 U	0.39 U
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	0.36 U	5.1	56 DJ	0.39 U	0.39 U
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	0.36 U	0.99	12 J	0.39 U	0.39 U
Benzo(k)fluoranthene	MG/KG	-	0.36 U	1.4 J	14 J	0.39 U	0.39 U
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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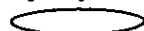
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	0.36 U	12 DJ	160 D	0.1 J	0.39 U
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.36 U	0.56	5.8 J	0.39 U	0.39 U
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	0.36 U	21 D	280 D	0.19 J	0.39 U
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	0.36 U	28 D	370 D	0.21 J	0.39 U
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.36 U	1.1	12 J	0.39 U	0.39 U
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/29/09# AND ([LOCID] LIKE 'DGP-') OR ([LOCID] LIKE 'HISB-') OR ([LOCID] LIKE 'ISS-')

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	0.36 U	100 D	1,800 D	0.59	0.39 U
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	0.36 U	82 D	1,100 D	0.74	0.39 U
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	0.36 U	30 D	380 D	0.27 J	0.39 U
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	ND	474.95	6,825.8	3.031	ND
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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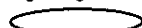
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN 803/01/09# AND 803/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-275	DGP-277	DGP-278	DGP-278	DGP-278
Sample ID			DGP-275/35.5-37	DGP-277/30-31	DGP-278/28-30	DGP-278/30-32	DGP-278/38-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			35.5-37.0	30.0-31.0	28.0-30.0	30.0-32.0	38.0-40.0
Date Sampled			01/16/09	01/17/09	01/17/09	01/17/09	01/17/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	7.47	19.7	16.4	15.4	14.9
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

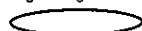
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-') OR ([LOCID] LIKE 'HISB-') OR ([LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.005 J	0.013 U	0.054 U	0.058 U	0.012 U
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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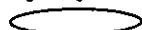
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08 AND #09/28/09 AND ([LOCID] LIKE 'DGP-') OR ([LOCID] LIKE 'HIS-') OR ([LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.012 U	0.013 U	4.1 D	3.9 D	0.014 J
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.002 J	0.013 U	0.054 U	0.058 U	0.012 U
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.005 J	0.004 J	1.3	3.3	0.014 J
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	0.012	0.004	5.4	7.2	0.028
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

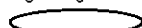
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	2.3	0.39 J	15 D	31 D	16 D
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

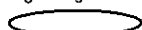
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 (MATRIX) = 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND ((LOCID) LIKE 'DGP-' OR (LOCID) LIKE 'HISB-' OR (LOCID) LIKE 'ISS')"

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	9.8	0.18 J	12 D	18 D	7 DJ
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	11	0.35 J	1.2	3.9	1.7
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	20 D	0.78	9 D	18 D	12 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	25 D	0.46	4.3	7.1 DJ	5
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	10 J	0.25 J	2.2	4.5	2.8
Benzo(b)fluoranthene	MG/KG	-	11 J	0.15 J	1.7 J	3.6 J	1.8 J
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	1.9 J	0.42 U	0.31 J	0.47	0.38 J
Benzo(k)fluoranthene	MG/KG	-	4.8 J	0.42 U	0.72	1.1	0.89
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

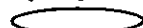
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	26 D	0.48	3.6	6.4 DJ	4.4
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	1.2 J	0.42 U	0.12 J	0.21 J	0.15 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	46 D	0.79	7.5 D	16 D	10 D
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	28 D	0.71	10 D	20 D	7.4 DJ
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	2 J	0.42 U	0.27 J	0.48	0.38 J
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

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Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	0.51 J	0.17 J	16 D	21 D	6.9 DJ
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	35 D	2.5	34 D	72 D	48 D
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	64 D	1.1	12 D	22 D	15 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	298.51	8.31	129.92	245.76	139.8
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

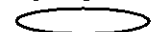
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-279	DGP-280	DGP-281	DGP-281	DGP-281
Sample ID			DGP-279/29-30	DGP-280/27.5-29	DGP-281/20-25	DGP-281/25-30	DGP-281/30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			29.0-30.0	27.5-29.0	20.0-25.0	25.0-30.0	30.0-35.0
Date Sampled			01/17/09	01/17/09	01/26/09	01/26/09	01/26/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	17.7	20.7	6.2	12.7	15.1
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

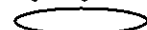
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-'" OR [LOCID] LIKE 'HISB-'" OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.012 U	0.028 U	0.006 U	0.17	0.059 U
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	0.012 U	15 DJ	0.21 J	38 DJ	0.4
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.012 U	0.11	0.005 J	1.5 DJ	0.12
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	0.005 J	21 DJ	2.5 DJ	59 DJ	2.6
Total BTEX	MG/KG	50	0.005	36.11	2.715	98.67	3.12
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	3.3	270 D	26 D	370 D	32 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Detection Limits shown are PQL

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[MATRIX] = "SO" AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND ((LOCID) LIKE "DGP-" OR (LOCID) LIKE "HISB-" OR (LOCID) LIKE "ISS")

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	4.8	84 D	0.97	41 D	0.86
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	11	19 DJ	0.71	70 D	4.5
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	59 D	46 D	0.36 J	57 D	2.6
Benzo(a)anthracene	MG/KG	-	23 DJ	25 DJ	0.39 U	41 D	1.8
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	16 DJ	16 DJ	0.39 U	26 JD	1.2
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	12 J	9.8 J	0.39 U	16 J	0.62
Benzo(g,h,i)perylene	MG/KG	-	2.8	1.5 J	0.39 U	2.8	0.26 J
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	4.2	5.6 J	0.39 U	17 JD	0.69
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

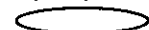
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	19 DJ	25 DJ	0.39 U	38 D	1.7
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.94	0.99 J	0.39 U	1.6	0.14 J
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	54 D	47 D	0.14 J	69 D	2.9
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	51 D	53 D	1.6	69 D	2.8
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	2.3	1.4 J	0.39 U	2.7	0.22 J
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	0.78 U	200 D	9.1 D	490 D	65 D
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	190 D	170 D	3.5	210 D	12 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	97 D	66 D	0.47	110 D	4.7
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	550.34	1,040.29	42.85	1,631.1	133.99
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
DCL 45	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
DF 100	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Diala A	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-283	DGP-295	DGP-296	DGP-298	DGP-299
Sample ID			DGP-283/25-30	DGP-295 25-30	DGP-296 30-35	DGP-298/31-34	DGP-299/23-25
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	25.0-30.0	30.0-35.0	31.0-34.0	23.0-25.0
Date Sampled			01/27/09	07/06/09	07/06/09	07/20/09	07/18/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	11,000 DJN	2,700 DJN	NA	NA
Fuel Oil 4	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Fuel Oil 6	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Gasoline	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
HYVOLT I	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
HYVOLT II	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Kerosene	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Motor Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Moisture, Percent	%	-	15.6	11.3	16	14	15.2
Petroleum Base Transformer Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	11,000 D	2,700 D	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	7.6 U	8.0 U	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Detection Limits shown are PQL

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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.01 J	0.0058 U	0.032 U	0.054 U	0.057 U
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Detection Limits shown are PQL

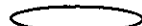
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	1	0.0058 U	0.046	18 D	0.15
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.77	0.0058 U	0.032 U	0.32 J	0.057 U
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	3.8 D	0.0058 U	0.34	2.6 J	0.34
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	5.58	ND	0.386	20.92	0.49
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

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Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	130 D	0.12 J	7.1 D	120 D	32 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Detection Limits shown are PQL

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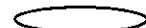
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	3.5	0.38 U	0.72	44 D	18 D
Acenaphthylene	MG/KG	-	27 D	0.11 J	3.4	3.5	1.4
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	15 JD	0.38 U	3	23 D	7.7 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	10 JD	0.28 J	1.8	13 JD	3.8
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	6.6 JD	0.31 J	1.6	8 JD	2.4
Benzo(b)fluoranthene	MG/KG	-	2.9	0.48	0.97	4.1	1.3
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	0.92	0.14 J	0.59	0.96	0.57
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	4.2	0.2 J	0.34 J	4.9	1.4
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tst G-3(r1)
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	9.4 JD	0.32 J	1.5	12 JD	3.5
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.46	0.38 U	0.18 J	0.63	0.31 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	17 JD	0.32 J	2.7	24 D	8.3 D
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	19 D	0.38 U	3.2	26 D	10 D
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.82	0.14 J	0.44	1.1	0.57
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-3(r1)
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS-*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	150 D	0.38 U	3	140 D	20 D
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	56 D	0.15 J	10 D	71 D	26 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	30 D	0.42	5.2	35 D	11 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	482.8	2.99	45.74	531.19	148.25
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
DCL 45	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
DF 100	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Diala A	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-300	DGP-303	DGP-304	DGP-309	DGP-309
Sample ID			DGP-300/33-35	DGP-303 / 15-16	DGP-304 25-30	DGP-309/25-30	DGP-309/35-40
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			33.0-35.0	15.0-16.0	25.0-30.0	25.0-30.0	35.0-40.0
Date Sampled			07/20/09	09/22/09	07/08/09	07/21/09	07/21/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	10,000 DJN	8,000 DJN
Fuel Oil 4	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Fuel Oil 6	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Gasoline	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
HYVOLT I	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
HYVOLT II	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Kerosene	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Motor Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Moisture, Percent	%	-	12.1	13.4	20.8	7.9	11.6
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	10,000 D	8,000 D
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	7.3 U	7.6 U

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

Advanced Selection: PDI DUSR TH G-3(1)
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(MATRIX) = 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND ((LOCID) LIKE 'DGP-*' OR (LOCID) LIKE 'HISB-*' OR (LOCID) LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.056 U	0.056 U	0.007 J	0.0057 U	0.055 U
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-3(r1)
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-310' OR [LOCID] LIKE 'HISB-310' OR [LOCID] LIKE 'HISB-310')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	1.5 D	0.53	0.036	0.071	1.4
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	0.09 J	0.033 J	0.02 J	0.002 J	0.055 U
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	1.7 J	0.65	0.19	0.12	0.99
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	3.29	1.213	0.253	0.193	2.39
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

Advanced Selection: PDI DUSR Tbl G-3(r1)
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09 AND #09/28/09 AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISB-*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	57 D	34 D	66 D	4.6	8.2 D
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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 (MATRIX) = 'SC' AND (LOGDATE) BETWEEN #09/01/09# AND #09/28/09# AND ((LOCID) LIKE 'DGP-') OR ((LOCID) LIKE 'HISB-') OR ((LOCID) LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	17 D	5.2	12 D	3.8	5.4
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	1.6	0.37 U	7.9 D	0.81	0.34 J
Anthracene	MG/KG	-	11 D	3.9	15 D	3.3	3.2
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	3.8	1.7	21 D	2	1.7
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	3	1.1	19 D	1.2	1
Benzo(b)fluoranthene	MG/KG	-	1.8	0.56	10 D	0.73 J	0.58 J
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	0.47	0.27 J	5.5 DJ	0.35 J	0.3 J
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	1.6	0.6	11 D	0.37	0.33 J
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value, D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND (([LOCID] LIKE 'DGP-') OR [LOCID] LIKE 'HISB-') OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	3.5	1.6	25 D	1.8	1.6
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.28 J	0.15 J	2.1 DJ	0.13 J	0.1 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	9.9 D	3.2	34 D	3.4	3.1
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	13 D	3.5	18 D	3.7	3.3
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.45	0.25 J	4.8 DJ	0.29 J	0.24 J
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

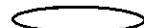
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	38 D	16 D	48 D	0.28 J	1.2
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	32 D	15 D	75 D	16 D	14 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	14 D	3.8	61 D	4.8	4.5
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	208.4	90.83	435.3	47.56	49.09
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
DCL 45	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
DF 100	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Diala A	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
DiChevrol Fluid 100 Cable Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
DiChevrol Fluid 500 Cable Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Diesel Fuel Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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([MATRIX] = 'SO' AND ([LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-') OR ([LOCID] LIKE 'HISB-') OR ([LOCID] LIKE 'ISS-'))

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-310	DGP-310	DGP-312	DGP-320	DGP-320
Sample ID			DGP-310/25-30	DGP-310/35-40	DGP-312/25-25.5	DGP-320 / 25-30	DGP-320 / 30-35
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			25.0-30.0	35.0-40.0	25.0-25.5	25.0-30.0	30.0-35.0
Date Sampled			07/21/09	07/21/09	07/01/09	09/28/09	09/28/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	15 U	3,200 DJN	NA	2,600 DJN	2,500 DJN
Fuel Oil 4	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Fuel Oil 6	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Gasoline	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
HYVOLT I	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
HYVOLT II	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
JP4 (Aviation Fuel)	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Kerosene	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Low Viscosity Polybutene	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Motor Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Moisture, Percent	%	-	10.5	11	13.7	11.8	9.48
Petroleum Base Transformer Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Sun 4 Cable Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U
Sun 6 Cable Oil	MG/KG	-	370 JN	7.5 U	NA	7.6 U	7.4 U
Total Petroleum Hydrocarbons	MG/KG	-	370	3,200 D	NA	2,600 D	2,500 D
Univolt 60 Transformer Oil	MG/KG	-	15 U	7.5 U	NA	7.6 U	7.4 U

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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(MATRIX) = 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/09# AND (LOCID) LIKE 'DGP-*' OR (LOCID) LIKE 'HISB-*' OR (LOCID) LIKE 'ISS*'

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	0.8 J	1.7 DJ	0.0056 U	0.0054 U	0.006 U
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

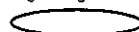
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(MATRIX) = 'SO' AND (LOGDATE) BETWEEN #09/01/09# AND #09/25/09# AND ((LOCID) LIKE 'DGP-' OR (LOCID) LIKE 'HISB-' OR (LOCID) LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/26/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	150 D	60 D	0.0056 U	0.0054 U	0.006 U
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	210 D	120 D	0.0056 U	0.0054 U	0.006 U
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	520 D	390 D	0.0056 U	0.0054 U	0.006 U
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Total BTEX	MG/KG	50	880.8	571.7	ND	ND	ND
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

Advanced Selection: PD\USR Tbl G-3(1)
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-321' OR [LOCID] LIKE 'HISB-1' OR [LOCID] LIKE '155')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	580 D	830 D	0.088 J	0.36 U	680 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

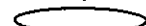
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	41 DJ	59 DJ	0.37 U	0.36 U	38 DJ
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	210 D	300 D	0.37 U	0.36 U	230 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	110 D	150 DJ	0.37 U	0.36 U	120 D
Benzo(a)anthracene	MG/KG	-	67 DJ	100 DJ	0.37 U	0.36 U	64 DJ
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	31 DJ	44 DJ	0.37 U	0.36 U	43 DJ
Benzo(b)fluoranthene	MG/KG	-	19 J	20 J	0.37 U	0.36 U	24 DJ
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	3.5 J	4.3 J	0.37 U	0.36 U	18 DJ
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	5.7 J	6.6 J	0.37 UJ	0.36 UJ	11 J
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

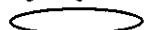
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN 8/9/01/09/08 AND 8/9/28/09/08 AND ([LOGID] LIKE 'DGP-' OR [LOGID] LIKE 'HISB-' OR [LOGID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	65 DJ	94 DJ	0.37 U	0.36 U	48 DJ
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	2 J	2.7 J	0.37 U	0.36 U	3.4 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	89 DJ	120 DJ	0.37 U	0.36 U	110 D
Fluorene	MG/KG	-	150 D	220 D	0.37 U	0.36 U	170 D
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	3.5 J	4.7 J	0.37 U	0.36 U	7.9 J
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 25-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	800 D	1,100 D	0.2 J	0.36 U	60 DJ
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	430 D	610 D	0.37 U	0.36 U	570 D
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	160 D	230 D	0.37 U	0.36 U	230 D
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	2,766.7	3,895.3	0.288	ND	2,427.3
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevroil Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevroil Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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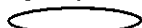
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HIS-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			DGP-321	DGP-322	DGP-323	DGP-325	DGP-326
Sample ID			DGP-321 / 32-33	DGP-322 / 30-32	DGP-323 / 35-40	DGP-325 / 35-40	DGP-326 / 26-28
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-33.0	30.0-32.0	35.0-40.0	35.0-40.0	26.0-28.0
Date Sampled			09/25/09	09/24/09	09/24/09	09/23/09	09/22/09
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	NA	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	17.1	15.6	10.1	7.09	17.1
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	NA	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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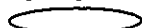
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TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,1,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	UG/KG	-	12 U	NA	NA	NA	NA
Benzene	MG/KG	-	NA	NA	NA	0.012 U	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	12 U	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	NA	NA	NA	0.13	NA
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	12 U	NA	NA	NA	NA
Toluene	MG/KG	-	NA	NA	NA	0.13	NA
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	12 U	NA	NA	NA	NA
Xylene (total)	MG/KG	-	NA	NA	NA	1.85 D	NA
Total BTEX	MG/KG	50	ND	NA	NA	2.11	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOCDATE] BETWEEN #06/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	410 U	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	NA	NA	NA	80 D	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

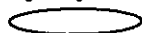
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #08/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	410 U	NA	NA	NA	NA
Acenaphthene	MG/KG	-	NA	NA	NA	4.3	NA
Acenaphthylene	MG/KG	-	NA	NA	NA	28 D	NA
Acenaphthylene	UG/KG	-	410 U	NA	NA	NA	NA
Anthracene	MG/KG	-	NA	NA	NA	22 D	NA
Anthracene	UG/KG	-	410 U	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	NA	NA	NA	14 D	NA
Benzo(a)anthracene	UG/KG	-	410 U	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	NA	NA	NA	8.2	NA
Benzo(a)pyrene	UG/KG	-	410 U	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	NA	NA	NA	6.1	NA
Benzo(b)fluoranthene	UG/KG	-	410 U	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	NA	NA	NA	1.7 J	NA
Benzo(g,h,i)perylene	UG/KG	-	410 U	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	NA	NA	NA	2.4 J	NA
Benzo(k)fluoranthene	UG/KG	-	410 U	NA	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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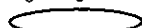
[MATRIX] = 'SO' AND ([LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-'))

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	UG/KG	-	410 U	NA	NA	NA	NA
Chrysene	MG/KG	-	NA	NA	NA	11	NA
Dibenz(a,h)anthracene	MG/KG	-	NA	NA	NA	0.7 J	NA
Dibenz(a,h)anthracene	UG/KG	-	410 U	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	NA	NA	NA	24 D	NA
Fluoranthene	UG/KG	-	410 U	NA	NA	NA	NA
Fluorene	UG/KG	-	410 U	NA	NA	NA	NA
Fluorene	MG/KG	-	NA	NA	NA	27 D	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	410 U	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	NA	NA	NA	1.6 J	NA
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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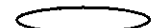
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	NA	NA	NA	64 D	NA
Naphthalene	UG/KG	-	410 U	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	NA	NA	NA	84 D	NA
Phenanthrene	UG/KG	-	410 U	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	NA	NA	NA	41 D	NA
Pyrene	UG/KG	-	410 U	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	ND	NA	NA	420	NA
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Detection Limits shown are PQL

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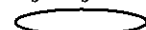
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			HISB-106	ISS-01	ISS-01	ISS-01	ISS-02
Sample ID			HISB-106/67-69	ISS-01 (22-24)	ISS-01 (44-46)	ISS-01 (5524+5524A)	ISS-02 (20-22)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			67.0-69.0	22.0-24.0	44.0-46.0	25.0-70.0	20.0-22.0
Date Sampled			12/18/08	09/15/08	09/16/08	10/13/08	09/19/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	NA	1,170	NA
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	19.5	6.8	20.2	11.1	3.8
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	NA	NA	5.8	NA
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

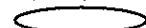
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[MATRIX] * 'SO' AND (LOGDATE) BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'OGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA	NA	NA
Benzene	MG/KG	-	NA	0.01 U	NA	NA	0.006 J
Benzene	UG/KG	-	NA	NA	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

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Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HIS-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Volatile Organic Compounds							
Chloroform	MG/KG	-	NA	NA	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA	NA	NA
Ethylbenzene	MG/KG	-	NA	0.065	NA	NA	0.5 D
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA	NA	NA
Toluene	UG/KG	-	NA	NA	NA	NA	NA
Toluene	MG/KG	-	NA	0.031	NA	NA	0.15
Trichloroethene	MG/KG	-	NA	NA	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	UG/KG	-	NA	NA	NA	NA	NA
Xylene (total)	MG/KG	-	NA	1.36 D	NA	NA	1.66 D
Total BTEX	MG/KG	50	NA	1.456	NA	NA	2.316
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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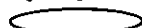
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	UG/KG	-	NA	NA	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	NA	94 D	NA	NA	150 D
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	NA	5	NA	NA	14 D
Acenaphthylene	UG/KG	-	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	NA	42 D	NA	NA	52 D
Anthracene	UG/KG	-	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	NA	23 D	NA	NA	28 D
Benzo(a)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	NA	16 D	NA	NA	17 D
Benzo(a)pyrene	MG/KG	-	NA	10	NA	NA	8.7
Benzo(a)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	NA	7.6	NA	NA	6.2
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	NA	1.9 J	NA	NA	1.6 J
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	NA	3.2 J	NA	NA	2.8 J
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

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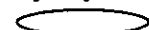
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Butylbenzylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA	NA	NA
Chrysene	UG/KG	-	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	NA	16 D	NA	NA	16 D
Dibenz(a,h)anthracene	MG/KG	-	NA	0.81 J	NA	NA	0.71 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	NA	27 D	NA	NA	32 D
Fluoranthene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	UG/KG	-	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	NA	30 D	NA	NA	42 D
Hexachlorobenzene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	NA	1.9 J	NA	NA	1.7 J
Isophorone	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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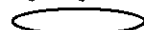
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS-*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Semivolatile Organic Compounds							
Naphthalene	MG/KG	-	NA	77 D	NA	NA	110 D
Naphthalene	UG/KG	-	NA	NA	NA	NA	NA
Nitrobenzene	MG/KG	-	NA	NA	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	NA	83 D	NA	NA	120 D
Phenanthrene	UG/KG	-	NA	NA	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	NA	41 D	NA	NA	48 D
Pyrene	UG/KG	-	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	NA	479.41	NA	NA	650.71
Miscellaneous Parameters							
Alkylate 6	MG/KG	-	NA	NA	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

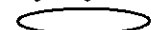
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/26/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-02	ISS-02	ISS-03	ISS-03	ISS-03
Sample ID			ISS-02 (32-34)	ISS-02 (5521+5521A)	ISS-03 (18-20)	ISS-03 (32-34)	ISS-03 (5522+5523)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			32.0-34.0	10.0-35.0	18.0-20.0	32.0-34.0	10.0-50.0
Date Sampled			09/19/08	10/13/08	09/22/08	09/22/08	10/13/08
Parameter	Units	Criteria*					
Miscellaneous Parameters							
Fuel Oil 2	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	1,670	NA	NA	2,840
High Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA	NA	NA
Moisture, Percent	%	-	19.1	4.2	13.6	15.3	7.5
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
pH	S.U.	-	NA	6.8	NA	NA	7.7
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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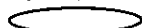
[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS-*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Volatile Organic Compounds					
1,1,1-Trichloroethane	MG/KG	-	NA	NA	NA
1,1,2,2-Tetrachloroethane	MG/KG	-	NA	NA	NA
1,1,2-Trichloroethane	MG/KG	-	NA	NA	NA
1,1-Dichloroethane	MG/KG	-	NA	NA	NA
1,1-Dichloroethene	MG/KG	-	NA	NA	NA
1,2-Dichloroethane	MG/KG	-	NA	NA	NA
1,2-Dichloroethene (total)	MG/KG	-	NA	NA	NA
1,2-Dichloropropane	MG/KG	-	NA	NA	NA
1,3-Dichloropropene (cis)	MG/KG	-	NA	NA	NA
1,3-Dichloropropene (trans)	MG/KG	-	NA	NA	NA
2-Hexanone	MG/KG	-	NA	NA	NA
4-Methyl-2-pentanone	MG/KG	-	NA	NA	NA
Acetone	MG/KG	-	NA	NA	NA
Benzene	MG/KG	-	NA	NA	0.025
Benzene	UG/KG	-	NA	NA	NA
Bromodichloromethane	MG/KG	-	NA	NA	NA
Bromoform	MG/KG	-	NA	NA	NA
Bromomethane	MG/KG	-	NA	NA	NA
Carbon disulfide	MG/KG	-	NA	NA	NA
Carbon tetrachloride	MG/KG	-	NA	NA	NA
Chlorobenzene	MG/KG	-	NA	NA	NA
Chloroethane	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

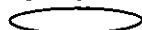
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/25/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Volatile Organic Compounds					
Chloroform	MG/KG	-	NA	NA	NA
Chloromethane	MG/KG	-	NA	NA	NA
Dibromochloromethane	MG/KG	-	NA	NA	NA
Ethylbenzene	UG/KG	-	NA	NA	NA
Ethylbenzene	MG/KG	-	NA	NA	3.2 D
Methyl ethyl ketone (2-Butanone)	MG/KG	-	NA	NA	NA
Methyl tert-butyl ether	MG/KG	-	NA	NA	NA
Methylene chloride	MG/KG	-	NA	NA	NA
Styrene	MG/KG	-	NA	NA	NA
Tetrachloroethene	MG/KG	-	NA	NA	NA
Toluene	MG/KG	-	NA	NA	1 DJ
Toluene	UG/KG	-	NA	NA	NA
Trichloroethene	MG/KG	-	NA	NA	NA
Vinyl chloride	MG/KG	-	NA	NA	NA
Xylene (total)	MG/KG	-	NA	NA	18.8 D
Xylene (total)	UG/KG	-	NA	NA	NA
Total BTEX	MG/KG	50	NA	NA	23.025
Semivolatile Organic Compounds					
1,2,4-Trichlorobenzene	MG/KG	-	NA	NA	NA
1,2-Dichlorobenzene	MG/KG	-	NA	NA	NA
1,3-Dichlorobenzene	MG/KG	-	NA	NA	NA
1,4-Dichlorobenzene	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

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Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
2,2-oxybis(1-Chloropropane)	MG/KG	-	NA	NA	NA
2,4,5-Trichlorophenol	MG/KG	-	NA	NA	NA
2,4,6-Trichlorophenol	MG/KG	-	NA	NA	NA
2,4-Dichlorophenol	MG/KG	-	NA	NA	NA
2,4-Dimethylphenol	MG/KG	-	NA	NA	NA
2,4-Dinitrophenol	MG/KG	-	NA	NA	NA
2,4-Dinitrotoluene	MG/KG	-	NA	NA	NA
2,6-Dinitrotoluene	MG/KG	-	NA	NA	NA
2-Chloronaphthalene	MG/KG	-	NA	NA	NA
2-Chlorophenol	MG/KG	-	NA	NA	NA
2-Methylnaphthalene	MG/KG	-	NA	NA	130 D
2-Methylnaphthalene	UG/KG	-	NA	NA	NA
2-Methylphenol (o-cresol)	MG/KG	-	NA	NA	NA
2-Nitroaniline	MG/KG	-	NA	NA	NA
2-Nitrophenol	MG/KG	-	NA	NA	NA
3,3-Dichlorobenzidine	MG/KG	-	NA	NA	NA
3-Nitroaniline	MG/KG	-	NA	NA	NA
4,6-Dinitro-2-methylphenol	MG/KG	-	NA	NA	NA
4-Bromophenyl-phenylether	MG/KG	-	NA	NA	NA
4-Chloro-3-methylphenol	MG/KG	-	NA	NA	NA
4-Chloroaniline	MG/KG	-	NA	NA	NA
4-Chlorophenyl-phenylether	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

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NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN 805/01/08# AND 803/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
4-Methylphenol (p-cresol)	MG/KG	-	NA	NA	NA
4-Nitroaniline	MG/KG	-	NA	NA	NA
4-Nitrophenol	MG/KG	-	NA	NA	NA
Acenaphthene	UG/KG	-	NA	NA	NA
Acenaphthene	MG/KG	-	NA	NA	6.5
Acenaphthylene	MG/KG	-	NA	NA	52 D
Acenaphthylene	UG/KG	-	NA	NA	NA
Anthracene	MG/KG	-	NA	NA	32 D
Anthracene	UG/KG	-	NA	NA	NA
Benzo(a)anthracene	UG/KG	-	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	NA	NA	21 D
Benzo(a)pyrene	MG/KG	-	NA	NA	11
Benzo(a)pyrene	UG/KG	-	NA	NA	NA
Benzo(b)fluoranthene	UG/KG	-	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	NA	NA	7.4
Benzo(g,h,i)perylene	MG/KG	-	NA	NA	1.9 J
Benzo(g,h,i)perylene	UG/KG	-	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	NA	NA	4.5 J
Benzo(k)fluoranthene	UG/KG	-	NA	NA	NA
bis(2-Chloroethoxy)methane	MG/KG	-	NA	NA	NA
bis(2-Chloroethyl)ether	MG/KG	-	NA	NA	NA
bis(2-Ethylhexyl)phthalate	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UU - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

Detection Limits shown are PQL

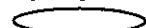
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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/09# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HISB-' OR [LOCID] LIKE 'ISS-')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
Butylbenzylphthalate	MG/KG	-	NA	NA	NA
Carbazole	MG/KG	-	NA	NA	NA
Chrysene	UG/KG	-	NA	NA	NA
Chrysene	MG/KG	-	NA	NA	21 D
Dibenz(a,h)anthracene	MG/KG	-	NA	NA	0.89 J
Dibenz(a,h)anthracene	UG/KG	-	NA	NA	NA
Dibenzofuran	MG/KG	-	NA	NA	NA
Diethylphthalate	MG/KG	-	NA	NA	NA
Dimethylphthalate	MG/KG	-	NA	NA	NA
Di-n-butylphthalate	MG/KG	-	NA	NA	NA
Di-n-octylphthalate	MG/KG	-	NA	NA	NA
Fluoranthene	MG/KG	-	NA	NA	36 D
Fluoranthene	UG/KG	-	NA	NA	NA
Fluorene	MG/KG	-	NA	NA	36 D
Fluorene	UG/KG	-	NA	NA	NA
Hexachlorobenzene	MG/KG	-	NA	NA	NA
Hexachlorobutadiene	MG/KG	-	NA	NA	NA
Hexachlorocyclopentadiene	MG/KG	-	NA	NA	NA
Hexachloroethane	MG/KG	-	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	NA	NA	2 J
Indeno(1,2,3-cd)pyrene	UG/KG	-	NA	NA	NA
Isophorone	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

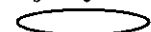
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 [MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/09# AND #09/28/09# AND ([LOCID] LIKE 'DGR-*' OR [LOCID] LIKE 'HISB-*' OR [LOCID] LIKE 'ISS*')

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (5525+5525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Semivolatile Organic Compounds					
Naphthalene	UG/KG	-	NA	NA	NA
Naphthalene	MG/KG	-	NA	NA	140 D
Nitrobenzene	MG/KG	-	NA	NA	NA
N-Nitroso-di-n-propylamine	MG/KG	-	NA	NA	NA
N-Nitrosodiphenylamine	MG/KG	-	NA	NA	NA
Pentachlorophenol	MG/KG	-	NA	NA	NA
Phenanthrene	MG/KG	-	NA	NA	110 D
Phenanthrene	UG/KG	-	NA	NA	NA
Phenol	MG/KG	-	NA	NA	NA
Pyrene	MG/KG	-	NA	NA	49 D
Pyrene	UG/KG	-	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	NA	NA	661.19
Miscellaneous Parameters					
Alkylate 6	MG/KG	-	NA	NA	NA
Cyanide, Total	MG/KG	-	NA	NA	NA
DCL 100	MG/KG	-	NA	NA	NA
DCL 45	MG/KG	-	NA	NA	NA
DF 100	MG/KG	-	NA	NA	NA
Diala A	MG/KG	-	NA	NA	NA
DiChevrol Fluid 100 Cable Oil	MG/KG	-	NA	NA	NA
DiChevrol Fluid 500 Cable Oil	MG/KG	-	NA	NA	NA
Diesel Fuel Oil	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter. JN - The fuel fingerprint pattern is weathered, the fuel ID is considered tentative.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10

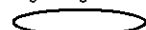
Detection Limits shown are PQL

TABLE G-3
VALIDATED SUBSURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			ISS-04	ISS-04	ISS-04
Sample ID			ISS-04/18-20	ISS-04/32-34	ISS-04 (S525+S525A)
Matrix			Soil	Soil	Soil
Depth Interval (ft)			18.0-20.0	32.0-34.0	20.0-40.0
Date Sampled			10/04/08	10/04/08	10/13/08
Parameter	Units	Criteria*			
Miscellaneous Parameters					
Fuel Oil 2	MG/KG	-	NA	NA	NA
Fuel Oil 4	MG/KG	-	NA	NA	NA
Fuel Oil 6	MG/KG	-	NA	NA	NA
Gasoline	MG/KG	-	NA	NA	NA
Hexane Extractable Material (O&G)	MG/KG	-	NA	NA	2,430
High Viscosity Polybutene	MG/KG	-	NA	NA	NA
HYVOLT I	MG/KG	-	NA	NA	NA
HYVOLT II	MG/KG	-	NA	NA	NA
JP4 (Aviation Fuel)	MG/KG	-	NA	NA	NA
Kerosene	MG/KG	-	NA	NA	NA
Low Viscosity Polybutene	MG/KG	-	NA	NA	NA
Motor Oil	MG/KG	-	NA	NA	NA
Moisture, Percent	%	-	4.4	15.3	8.6
Petroleum Base Transformer Oil	MG/KG	-	NA	NA	NA
pH	S.U.	-	NA	NA	7.0
Silicone Base Transformer Oil	MG/KG	-	NA	NA	NA
Sun 4 Cable Oil	MG/KG	-	NA	NA	NA
Sun 6 Cable Oil	MG/KG	-	NA	NA	NA
Total Petroleum Hydrocarbons	MG/KG	-	NA	NA	NA
Univolt 60 Transformer Oil	MG/KG	-	NA	NA	NA

*Criteria- Source Material Concentration Threshold, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

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Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #09/01/08# AND #09/28/08# AND ([LOCID] LIKE 'DGP-' OR [LOCID] LIKE 'HSB-' OR [LOCID] LIKE 'ISS')

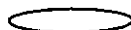
TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID				BSS-01	BSS-02	BSS-03	BSS-04	BSS-05
Sample ID				BSS-01	BSS-02	BSS-03	BSS-04	BSS-05
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Date Sampled				07/12/09	07/12/09	07/12/09	07/12/09	07/12/09
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	-	-	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Acenaphthene	MG/KG	-	100	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Acenaphthylene	MG/KG	-	100	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Anthracene	MG/KG	-	100	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Benzo(a)anthracene	MG/KG	-	1	0.42 U	0.29 J	0.29 J	0.15 J	0.23 J
Benzo(a)pyrene	MG/KG	-	1	0.42 U	0.35 J	0.36 J	0.17 J	0.25 J
Benzo(b)fluoranthene	MG/KG	-	1	0.42 U	0.45	0.5	0.23 J	0.38
Benzo(g,h,i)perylene	MG/KG	-	100	0.42 U	0.21 J	0.12 J	0.1 J	0.13 J
Benzo(k)fluoranthene	MG/KG	-	3.9	0.42 U	0.23 J	0.29 J	0.12 J	0.15 J
Chrysene	MG/KG	-	3.9	0.42 U	0.36 J	0.38	0.19 J	0.31 J
Dibenz(a,h)anthracene	MG/KG	-	0.33	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Fluoranthene	MG/KG	-	100	0.09 J	0.42	0.6	0.3 J	0.52
Fluorene	MG/KG	-	100	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	0.42 U	0.23 J	0.14 J	0.096 J	0.14 J
Naphthalene	MG/KG	-	100	0.42 U	0.41 U	0.37 U	0.38 U	0.38 U
Phenanthrene	MG/KG	-	100	0.42 U	0.12 J	0.2 J	0.11 J	0.23 J
Pyrene	MG/KG	-	100	0.085 J	0.4 J	0.53	0.28 J	0.44
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	0.175	3.06	3.41	1.746	2.78
Metals								
Arsenic	MG/KG	-	16	54.5	8.5	3.2	6.8	10.8
Mercury	MG/KG	-	0.81	0.21 J	0.52 J	0.092 J	0.12 J	0.15 J
Miscellaneous Parameters								
Moisture, Percent	%	-	-	20.5	18.8	10.4	13.3	12.7

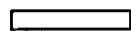
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10.

Detection Limits shown are PQL

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[MATRIX] = 'SO' AND [LOGDATE] BETWEEN #07/10/09# AND #09/21/09# AND ([LOCID] LIKE 'HISS' OR [LOCID] LIKE 'BSS')

TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID				HISS-03	HISS-03-A	HISS-03-B	HISS-03-C	HISS-03-D
Sample ID				HISS-03	HISS-03-A	HISS-03-B	HISS-03-C	HISS-03-D
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Date Sampled				07/10/09	09/21/09	09/21/09	09/21/09	09/21/09
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	-	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	100	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	100	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	100	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	3.9	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	3.9	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.33	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	100	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	100	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	100	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	NA	NA	NA	NA	NA
Metals								
Arsenic	MG/KG	-	16	NA	NA	NA	NA	NA
Mercury	MG/KG	-	0.81	0.90 J	30.1	5.0	6.7	2.9
Miscellaneous Parameters								
Moisture, Percent	%	-	-	16	9.07	8.28	10.6	8.91

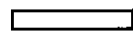
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID				HISS-03-E	HISS-03-F	HISS-03-G	HISS-03-NW	HISS-03-SW
Sample ID				HISS-03-E	HISS-03-F	HISS-03-G	HISS-03-NW	HISS-03-SW
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Date Sampled				09/21/09	09/21/09	09/21/09	07/10/09	07/10/09
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	-	-	NA	NA	NA	NA	NA
Acenaphthene	MG/KG	-	100	NA	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	100	NA	NA	NA	NA	NA
Anthracene	MG/KG	-	100	NA	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	1	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	100	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	3.9	NA	NA	NA	NA	NA
Chrysene	MG/KG	-	3.9	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.33	NA	NA	NA	NA	NA
Fluoranthene	MG/KG	-	100	NA	NA	NA	NA	NA
Fluorene	MG/KG	-	100	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	NA	NA	NA	NA	NA
Naphthalene	MG/KG	-	100	NA	NA	NA	NA	NA
Phenanthrene	MG/KG	-	100	NA	NA	NA	NA	NA
Pyrene	MG/KG	-	100	NA	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	NA	NA	NA	NA	NA
Metals								
Arsenic	MG/KG	-	16	NA	NA	NA	NA	NA
Mercury	MG/KG	-	0.81	2.2	1.5	2.4	1.4 J	4.0 J
Miscellaneous Parameters								
Moisture, Percent	%	-	-	13	8.16	6.38	14.2	15.9

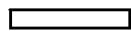
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID				HISS-03-W	HISS-07	HISS-07-NE	HISS-07-NW	HISS-07-SE
Sample ID				HISS-03-W	HISS-07	HISS-07-NE	HISS-07-NW	HISS-07-SE
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Date Sampled				07/10/09	07/10/09	07/10/09	07/10/09	07/10/09
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	-	-	NA	11 D	9.2 D	0.88	25 D
Acenaphthene	MG/KG	-	100	NA	0.14 J	0.27 J	0.36 U	0.72
Acenaphthylene	MG/KG	-	100	NA	3.6	6.1	0.31 J	12 DJ
Anthracene	MG/KG	-	100	NA	1.9	2.7	0.2 J	5.6
Benzo(a)anthracene	MG/KG	-	1	NA	7.9 D	13 D	0.81	30 D
Benzo(a)pyrene	MG/KG	-	1	NA	8.3 D	18 D	0.79	31 D
Benzo(b)fluoranthene	MG/KG	-	1	NA	9.2 D	16 D	0.87	34 D
Benzo(g,h,i)perylene	MG/KG	-	100	NA	4.4 D	7.3 DJ	0.38	14 DJ
Benzo(k)fluoranthene	MG/KG	-	3.9	NA	4.3 DJ	6.7 DJ	0.49 J	11 DJ
Chrysene	MG/KG	-	3.9	NA	10 D	16 D	1.1	41 D
Dibenz(a,h)anthracene	MG/KG	-	0.33	NA	1.3 DJ	2.5 DJ	0.13 J	4.3 DJ
Fluoranthene	MG/KG	-	100	NA	6.2	13 D	1.2	36 D
Fluorene	MG/KG	-	100	NA	0.8	0.8	0.12 J	2.4
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	NA	3.4 DJ	6.5 DJ	0.35 J	12 DJ
Naphthalene	MG/KG	-	100	NA	14 D	12 D	1.1	30 D
Phenanthrene	MG/KG	-	100	NA	8.9 D	4.2	0.85	25 D
Pyrene	MG/KG	-	100	NA	20 D	36 D	2.1	83 D
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	NA	115.34	170.27	11.68	397.02
Metals								
Arsenic	MG/KG	-	16	NA	20.1	14.6	2.6	16.1
Mercury	MG/KG	-	0.81	1.6 J	NA	NA	NA	NA
Miscellaneous Parameters								
Moisture, Percent	%	-	-	18.2	15.1	16.1	7.69	12.7

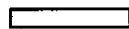
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID				HISS-07-SW	HISS-14	HISS-14-NE	HISS-14-NW	HISS-14-SE
Sample ID				HISS-07-SW	HISS-14	HISS-14-NE	HISS-14-NW	HISS-14-SE
Matrix				Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)				0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Date Sampled				07/10/09	07/11/09	07/11/09	07/11/09	07/11/09
Parameter	Units	Criteria (1)	Criteria (2)					
Semivolatile Organic Compounds								
2-Methylnaphthalene	MG/KG	-	-	160 D	NA	NA	NA	NA
Acenaphthene	MG/KG	-	100	2.6	NA	NA	NA	NA
Acenaphthylene	MG/KG	-	100	24 DJ	NA	NA	NA	NA
Anthracene	MG/KG	-	100	15 DJ	NA	NA	NA	NA
Benzo(a)anthracene	MG/KG	-	1	120 D	NA	NA	NA	NA
Benzo(a)pyrene	MG/KG	-	1	31 DJ	NA	NA	NA	NA
Benzo(b)fluoranthene	MG/KG	-	1	110 D	NA	NA	NA	NA
Benzo(g,h,i)perylene	MG/KG	-	100	55 D	NA	NA	NA	NA
Benzo(k)fluoranthene	MG/KG	-	3.9	36 DJ	NA	NA	NA	NA
Chrysene	MG/KG	-	3.9	160 D	NA	NA	NA	NA
Dibenz(a,h)anthracene	MG/KG	-	0.33	16 DJ	NA	NA	NA	NA
Fluoranthene	MG/KG	-	100	180 D	NA	NA	NA	NA
Fluorene	MG/KG	-	100	5.3	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	43 D	NA	NA	NA	NA
Naphthalene	MG/KG	-	100	160 D	NA	NA	NA	NA
Phenanthrene	MG/KG	-	100	130 D	NA	NA	NA	NA
Pyrene	MG/KG	-	100	380 D	NA	NA	NA	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	1,627.9	NA	NA	NA	NA
Metals								
Arsenic	MG/KG	-	16	13.6	NA	NA	NA	NA
Mercury	MG/KG	-	0.81	NA	0.095 J	0.11 J	0.22 J	0.090 J
Miscellaneous Parameters								
Moisture, Percent	%	-	-	14.8	6.28	7.56	13.9	5.83

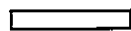
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

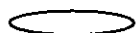
TABLE G-4
VALIDATED SURFACE SOIL SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID		HISS-14-SW		
Sample ID		HISS-14-SW		
Matrix		Soil		
Depth Interval (ft)		0.0-0.5		
Date Sampled		07/11/09		
Parameter	Units	Criteria (1)	Criteria (2)	
Semivolatile Organic Compounds				
2-Methylnaphthalene	MG/KG	-	-	NA
Acenaphthene	MG/KG	-	100	NA
Acenaphthylene	MG/KG	-	100	NA
Anthracene	MG/KG	-	100	NA
Benzo(a)anthracene	MG/KG	-	1	NA
Benzo(a)pyrene	MG/KG	-	1	NA
Benzo(b)fluoranthene	MG/KG	-	1	NA
Benzo(g,h,i)perylene	MG/KG	-	100	NA
Benzo(k)fluoranthene	MG/KG	-	3.9	NA
Chrysene	MG/KG	-	3.9	NA
Dibenz(a,h)anthracene	MG/KG	-	0.33	NA
Fluoranthene	MG/KG	-	100	NA
Fluorene	MG/KG	-	100	NA
Indeno(1,2,3-cd)pyrene	MG/KG	-	0.5	NA
Naphthalene	MG/KG	-	100	NA
Phenanthrene	MG/KG	-	100	NA
Pyrene	MG/KG	-	100	NA
Total Polynuclear Aromatic Hydrocarbons	MG/KG	1000	100	NA
Metals				
Arsenic	MG/KG	-	16	NA
Mercury	MG/KG	-	0.81	0.14 J
Miscellaneous Parameters				
Moisture, Percent	%	-	-	7.66

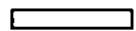
Criteria (1)- Feasibility Study/Remedial Action Plan for the Hempstead Intersection Street Former MGP Site, URS 2008 (i.e., 50 ppm for total BTEX, 1000 ppm for total PAHs).

Criteria (2)- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Restricted Residential.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria (1)



Concentration Exceeds Criteria (2)

U - Not detected above the reported quantitation limit. J - The reported concentration is an estimated value.

UJ - Not detected. The reported quantitation limit is an estimated value. D - Result reported from a secondary dilution analysis.

NA - The sample was not analyzed for this parameter.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

TABLE G-5
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			TB 092408	TB 092508	TB 111408	20081119-TB-1	20081119-TB-2
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			09/24/08	09/25/08	11/14/08	11/19/08	11/19/08
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

R - The data is rejected.

ND - Not detected.

Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WQ' AND ([LOGDATE] BETWEEN #09/24/08# AND #09/25/08# OR [LOGDATE] BETWEEN #11/01/08# AND #11/15/08# OR [LOGDATE] = #02/04/09# OR [LOGDATE] = #02/22/09##) AND [SACODE] <> 'TB' AND [FLDSAMPID] <> 'TRIP BLANK 1/14'

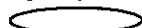
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TABLE G-5
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			20081121-TB-1	20081201-TB-1	20081201-TB-2	20081204-TB-1	20081205-TB-1
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			11/21/08	12/01/08	12/01/08	12/04/08	12/05/08
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

R - The data is rejected.

ND - Not detected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = "WQ" AND ([LOGDATE] BETWEEN #09/24/08# AND #09/25/08# OR [LOGDATE] BETWEEN #11/01/08# AND #01/15/09# OR [LOGDATE] = #02/04/09# OR [LOGDATE] = #6/22/2009#) AND [SACCODE] <> "FB" AND [FLOSAMPID] <> "TRIP BLANK 1/14"

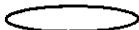
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TABLE G-5
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			20081208-TB-1	20081209-TB-1	20081210-TB-1	20081211-TB-1	20081217-TB-1
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/08/08	12/09/08	12/10/08	12/11/08	12/17/08
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Toluene	UG/L	-	1 U	1 U	1 U	1 U	1 U
Xylene (total)	UG/L	-	1 U	1 U	1 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.



Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

R - The data is rejected.

ND - Not detected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

(MATRIX) = 'WQ' AND ((LOGDATE) BETWEEN #09/24/08# AND #09/25/08# OR (LOGDATE) BETWEEN #11/01/08# AND #01/15/09# OR (LOGDATE) = #02/04/09# OR (LOGDATE) = #02/22/2009#) AND (SACODE) <> 'FB' AND (FLDSAMPID) <> 'TRIP BLANK 1/1/4'

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TABLE G-5
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC	FIELDQC	FIELDQC
Sample ID			20081223-TB-1	20090106-TB-1	20090108-TB-1	TRIP BLANK 1/13	20090114-TB-1
Matrix			Water Quality	Water Quality	Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-	-	-
Date Sampled			12/23/08	01/06/09	01/08/09	01/09/09	01/14/09
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds							
Benzene	UG/L	-	1 U	R	10 U	1 U	10 U
Ethylbenzene	UG/L	-	1 U	R	10 U	1 U	10 U
Toluene	UG/L	-	1 UJ	R	10 U	1 U	10 U
Xylene (total)	UG/L	-	1 U	R	10 U	1 U	10 U
Total BTEX	UG/L	100	ND	ND	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

R - The data is rejected.

ND - Not detected.

Made By_PRF 03/12/09 and 12/17/09_; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WQ' AND ([LOGDATE] BETWEEN #09/24/08# AND #09/25/08# OR [LOGDATE] BETWEEN #11/01/08# AND #01/15/09# OR [LOGDATE] = #02/04/09# OR [LOGDATE] = #5/22/2009#) AND [SACCODE] <> 'FB' AND [FLDSAMPID] <> 'TRIP BLANK 1/14'

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TABLE G-5
VALIDATED FIELD QC SAMPLE ANALYTICAL RESULTS
HEMPSTEAD INTERSECTION STREET FORMER MGP SITE

Location ID			FIELDQC	FIELDQC	FIELDQC
Sample ID			20090115-TB-1	TB 020409	20090623-TB-1
Matrix			Water Quality	Water Quality	Water Quality
Depth Interval (ft)			-	-	-
Date Sampled			01/15/09	02/04/09	06/22/09
Parameter	Units	Criteria*	Trip Blank (1-1)	Trip Blank (1-1)	Trip Blank (1-1)
Volatile Organic Compounds					
Benzene	UG/L	-	10 U	1 U	1 U
Ethylbenzene	UG/L	-	10 U	1 U	1 U
Toluene	UG/L	-	10 U	1 U	1 U
Xylene (total)	UG/L	-	10 U	1 U	1 U
Total BTEX	UG/L	100	ND	ND	ND

*Criteria- Groundwater Plume Delineation/Design Criteria, Pre-Design Investigation Work Plan for In-Situ Solidification for the Hempstead Intersection Street Former MGP Site, Appendix E, Final, URS 2008.

Flags assigned during chemistry validation are shown.

 Concentration Exceeds Criteria

U - Not detected above the reported quantitation limit.

R - The data is rejected.

ND - Not detected.

Made By_PRF 03/12/09 and 12/17/09; Checked By_AMK 03/13/09 and 01/26/10_

Detection Limits shown are PQL

[MATRIX] = 'WQ' AND ([LOGDATE] BETWEEN #09/24/08# AND #09/25/08# OR [LOGDATE] BETWEEN #11/01/08# AND #01/15/09# OR [LOGDATE] = #02/04/09# OR [LOGDATE] = #6/22/2009#) AND [SACCODE] <> 'FB' AND [FLODAMPID] <> 'TRIP BLANK 1/14'

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DEFINITIONS OF USEPA REGION II DATA QUALIFIERS

- U – The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ – The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R – The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- D – The sample results are reported from a separate secondary dilution analysis.
- JN – The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.

ATTACHMENT A

VALIDATED FORM 1'S

GROUNDWATERS

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-209/34-38

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATER

Lab Sample ID:

0813154-001ASample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62268.D

Level: (low/med)

LOW

Date Received:

11/11/08

% Moisture: not dec.

Date Analyzed:

11/21/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	0
71-43-2	Benzene	<u>620</u> 588	<u>ED</u>
108-88-3	Toluene	<u>260</u> 226	<u>ED</u>
100-41-4	Ethylbenzene	89	
1330-20-7	Xylene (total)	<u>740</u> 660	<u>ED</u>

2/13/09
2

KEY-URS042 S31

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-209/34-38DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATERLab Sample ID: 0813154-001ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A62288.D

Level: (low/med)

LOWDate Received: 11/11/08

% Moisture: not dec.

Date Analyzed: 11/21/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	620	D
108-88-3	Toluene	260	D
100-41-4	Ethylbenzene	84	D
1330-20-7	Xylene (total)	740	D

2/13/09

KEY-URS042 S32

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

209/34'-38'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water) WATER

Lab Sample ID: 0813154-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43641.D

Level: (low/med) LOW

Date Received: 11/11/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/13/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/14/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>770</u> 590	<u>ED</u>
91-57-6	2-Methylnaphthalene	190	<u>ED</u>
208-96-8	Acenaphthylene	65	
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	16	
85-01-8	Phenanthrene	13	
120-12-7	Anthracene	2	<u>J</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/13/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

209/34'-38'DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042Matrix: (soil/water) WATERLab Sample ID: 0813154-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43647.DLevel: (low/med) LOWDate Received: 11/11/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/13/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 11/17/08Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	770	D
91-57-6	2-Methylnaphthalene	190	DJ
208-96-8	Acenaphthylene	64	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

2/13/09
3

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-209/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATER

Lab Sample ID:

0813255-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62269.D

Level: (low/med)

LOW

Date Received:

11/13/08

% Moisture: not dec.

Date Analyzed:

11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>4300</u> 1800	B <u>D</u>
108-88-3	Toluene	150	
100-41-4	Ethylbenzene	130	
1330-20-7	Xylene (total)	<u>400</u> 420	B <u>D</u>

2/13/09
a

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-209/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water) WATER

Lab Sample ID: 0813255-001ADL

Sample wt/vol: 5 (g/mL) ML

Lab File ID: A\A62289.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 50.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	4300	D
108-88-3	Toluene	140	D
100-41-4	Ethylbenzene	110	D
1330-20-7	Xylene (total)	400	D

2/13/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

209/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water) WATER

Lab Sample ID: 0813255-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43684.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/14/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/18/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>530</u> 400	<u>ED</u> <u>J</u>
91-57-6	2-Methylnaphthalene	44	
208-96-8	Acenaphthylene	38	
83-32-9	Acenaphthene	3	<u>J</u>
86-73-7	Fluorene	11	
85-01-8	Phenanthrene	18	
120-12-7	Anthracene	1	<u>J</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/13/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

209/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDS No.: KEY-URS042Matrix: (soil/water) WATERLab Sample ID: 0813255-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43688.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/14/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 11/18/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	530	D
91-57-6	2-Methylnaphthalene	36	DJ
208-96-8	Acenaphthylene	34	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	15	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/13/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-209/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATER

Lab Sample ID: 0813255-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62270.D

Level: (low/med)

LOW

Date Received: 11/13/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>2900</u> 1600	PD
108-88-3	Toluene	110	
100-41-4	Ethylbenzene	49	
1330-20-7	Xylene (total)	<u>800</u> 620	PD

2/13/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-209/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATER

Lab Sample ID: 0813255-002ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62290.D

Level: (low/med)

LOW

Date Received: 11/13/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 20.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	2900	D
108-88-3	Toluene	110	D
100-41-4	Ethylbenzene	44	D
1330-20-7	Xylene (total)	800	D

2/13/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

209/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water) WATER

Lab Sample ID: 0813255-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43685.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/14/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/18/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	<u>1100</u> 910	<u>✓</u> D <u>J</u>
91-57-6	2-Methylnaphthalene	<u>97</u> 100	<u>✓</u> D
208-96-8	Acenaphthylene	67	
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	12	
85-01-8	Phenanthrene	13	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/13/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

209/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042Matrix: (soil/water) WATERLab Sample ID: 0813255-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43689.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/14/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/18/08Injection Volume: 2 (μ L)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	1100	D
91-57-6	2-Methylnaphthalene	97	DJ
208-96-8	Acenaphthylene	86	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-209/70-74

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS042
Matrix: (soil/water) WATER Lab Sample ID: 0813289-001A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62304.D
Level: (low/med) LOW Date Received: 11/14/08
% Moisture: not dec. Date Analyzed: 11/22/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	2	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-121

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water)

WATER

Lab Sample ID: 0901376-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62986.D

Level: (low/med)

LOW

Date Received: 01/13/09

% Moisture: not dec.

Date Analyzed: 01/15/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	42	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	3	
1330-20-7	Xylene (total)	9	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12I

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water) WATER

Lab Sample ID: 0901376-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44571.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/14/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/15/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	3	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	37	
83-32-9	Acenaphthene	30	
86-73-7	Fluorene	22	
85-01-8	Phenanthrene	8	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/2/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901376-002

Sample Information...
Type : Groundwater

Origin:

Client ID. : HIMW-121

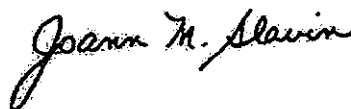
Collected : 1/12/2009 4:35:00 AM
Received : 1/13/2009 3:36:00 PM
Collected By : Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	70.2		4	mg/L	SM2320B	01/16/2009 11:10 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 2/3/2009



Laboratory Manager

VOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-12S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS057

Matrix: (soil/water)

WATERLab Sample ID: 0901376-003ASample wt/vol: 5(g/mL) MLLab File ID: A\A62987.D

Level: (low/med)

LOWDate Received: 01/13/09

% Moisture: not dec.

Date Analyzed: 01/15/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	10	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-12S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water) WATER

Lab Sample ID: 0901376-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44572.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/14/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/15/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901376-003

Sample Information...
Type : Groundwater

Origin:

Client ID. : HIMW-12S

Collected : 1/12/2009 2:55:00 AM
Received : 1/13/2009 3:36:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	38.5		2	mg/L	SM2320B	01/16/2009 11:16 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 2/3/2009

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-131

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS057
Matrix: (soil/water) WATER Lab Sample ID: 0901376-004A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62988.D
Level: (low/med) LOW Date Received: 01/13/09
% Moisture: not dec. Date Analyzed: 01/15/09
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	38	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	7	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13I

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water) WATER

Lab Sample ID: 0901376-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44573.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/14/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/15/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	46	
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	13	
85-01-8	Phenanthrene	13	J
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/2/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901376-004

Sample Information...

Type : Groundwater

Origin:

Client ID. : HIMW-131

Collected : 1/12/2009 12:20:00 PM

Received : 1/13/2009 3:36:00 PM

Collected By Client

Copies To : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	120		5	mg/L	SM2320B	01/16/2009 11:22 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 2/3/2009

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water)

WATER

Lab Sample ID: 0901376-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63033.D

Level: (low/med)

LOW

Date Received: 01/13/09

% Moisture: not dec.

Date Analyzed: 01/17/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-13S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS057

Matrix: (soil/water) WATER

Lab Sample ID: 0901376-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44574.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/14/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901376-005

Sample Information...
Type : Groundwater

Origin:

Client ID. : HIMW-13S

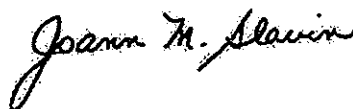
Collected : 1/12/2009 10:20:00 AM
Received : 1/13/2009 3:36:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	20.2		2	mg/L	SM2320B	01/16/2009 11:44 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 2/3/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-201

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS061

Matrix: (soil/water)

WATER

Lab Sample ID: 0902136-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: 09\G0183.D

Level: (low/med)

LOW

Date Received: 02/04/09

% Moisture: not dec.

Date Analyzed: 02/10/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	140	
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	46	
1330-20-7	Xylene (total)	38	

3/4/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-201

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS061Matrix: (soil/water) WATERLab Sample ID: 0902136-001BSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N29094.DLevel: (low/med) LOWDate Received: 02/04/09% Moisture: Decanted: (Y/N) NDate Extracted: 02/05/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 02/06/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPT CONT NC 2/12/09

CAS NO.	COMPOUND	CONCENTRATION UNITS: (μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	11	
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	120	ED
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	20	
85-01-8	Phenanthrene	16	
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/4/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20IDL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS061Matrix: (soil/water) WATERLab Sample ID: 0902136-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N29121.DLevel: (low/med) LOWDate Received: 02/04/09% Moisture: Decanted: (Y/N) NDate Extracted: 02/05/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 02/09/09Injection Volume: 2 (μL)Dilution Factor: 4.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPP ^{NC} CONT 2/12/09

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	11	DJ
91-57-6	2-Methylnaphthalene	40	U
208-96-8	Acenaphthylene	120	D
83-32-9	Acenaphthene	10	DJ
86-73-7	Fluorene	21	DJ
85-01-8	Phenanthrene	16	DJ
120-12-7	Anthracene	40	U
206-44-0	Fluoranthene	40	U
129-00-0	Pyrene	40	U
56-55-3	Benzo (a) anthracene	40	U
218-01-9	Chrysene	40	U
205-99-2	Benzo (b) fluoranthene	40	U
207-08-9	Benzo (k) fluoranthene	40	U
50-32-8	Benzo (a) pyrene	40	U
193-39-5	Indeno (1,2,3-cd) pyrene	40	U
53-70-3	Dibenzo (a,h) anthracene	40	U
191-24-2	Benzo (g,h,i) perylene	40	U

(1) Cannot be separated from Diphenylamine

3/4/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

HIMW-20S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS061

Matrix: (soil/water)

WATERLab Sample ID: 0902136-002ASample wt/vol: 5(g/mL) MLLab File ID: 09\G0184.D

Level: (low/med)

LOWDate Received: 02/04/09

% Moisture: not dec.

Date Analyzed: 02/10/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

3/4/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HIMW-20S

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS061

Matrix: (soil/water) WATER

Lab Sample ID: 0902136-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 9\N29095.D

Level: (low/med) LOW

Date Received: 02/04/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 02/05/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 02/06/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPT CONT NC 2/12/09

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

209/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042Matrix: (soil/water) WATERLab Sample ID: 0813289-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43712.DLevel: (low/med) LOWDate Received: 11/14/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/18/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/19/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	3	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813480-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62292.D

Level: (low/med)

LOW

Date Received: 11/19/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813480-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43752.DLevel: (low/med) LOWDate Received: 11/19/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/21/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.

Wayne, NJ 14203

Attn To : Kevin Connare

Lab No. : 0813480-001

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-100/GW/30-34

Collected : 11/19/2008 9:20:00 AM

Received : 11/19/2008 4:30:00 PM

Collected By Client

Copies To : Original

CC

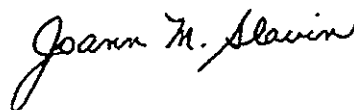
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	112		10	mg/L	SM2320B	11/24/2008 12:19 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	11/20/2008 11:27 AM
Nitrate as N	3.92		10	mg/L	E353.2	12/03/2008 9:22 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	11/20/2008 8:38 AM

Qualifiers: E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/11/2008



Laboratory Manager

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-100/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813480-002ASample wt/vol: 5(g/mL) MLLab File ID: A\A62293.D

Level: (low/med)

LOWDate Received: 11/19/08

% Moisture: not dec.

Date Analyzed: 11/21/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/kg) UG/L	Q
71-43-2	Benzene	1700	E
108-88-3	Toluene	1200	E
100-41-4	Ethylbenzene	550	E
1330-20-7	Xylene (total)	830	E

2/16/08
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813480-002ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62306.D

Level: (low/med)

LOW

Date Received: 11/19/08

% Moisture: not dec.

Date Analyzed: 11/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 100.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	6100	D
108-88-3	Toluene	4100	D
100-41-4	Ethylbenzene	700	D
1330-20-7	Xylene (total)	1100	D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813480-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43753.D

Level: (low/med) LOW

Date Received: 11/19/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/21/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	1300 1000		FD
91-57-6	2-Methylnaphthalene	160		FD
208-96-8	Acenaphthylene	76		
83-32-9	Acenaphthene	8		J
86-73-7	Fluorene	18		
85-01-8	Phenanthrene	14		
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813480-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43768.DLevel: (low/med) LOWDate Received: 11/19/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/24/08Injection Volume: 2 (μ L)Dilution Factor: 20.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μ g/L or μ g/Kg) UG/L Q

CAS NO.	COMPOUND		
91-20-3	Naphthalene	1300	D
91-57-6	2-Methylnaphthalene	160	DJ
208-96-8	Acenaphthylene	110	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

2/16/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813520-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62320.D

Level: (low/med)

LOW

Date Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	160	
108-88-3	Toluene	49	
100-41-4	Ethylbenzene	82	
1330-20-7	Xylene (total)	150	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813520-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43758.DLevel: (low/med) LOWDate Received: 11/20/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/22/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	<u>240</u> 210	<u>ND</u>
91-57-6	2-Methylnaphthalene	55	
208-96-8	Acenaphthylene	21	
83-32-9	Acenaphthene	3	J
86-73-7	Fluorene	8	J
85-01-8	Phenanthrene	5	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-001BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43770.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	240	D
91-57-6	2-Methylnaphthalene	53	D
208-96-8	Acenaphthylene	21	DJ
83-32-9	Acenaphthene	50	U
86-73-7	Fluorene	7	DJ
85-01-8	Phenanthrene	50	U
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813520-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-100/GW/50-54

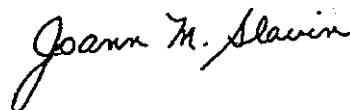
Collected : 11/19/2008 11:35:00 AM
Received : 11/20/2008 4:12:00 PM
Collected By : Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	16.6		2	mg/L	SM2320B	11/24/2008 1:00 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	11/21/2008 10:57 AM
Nitrate as N	0.11		1	mg/L	E353.2	12/03/2008 9:19 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	11/21/2008 8:54 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/11/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813520-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62321.D

Level: (low/med)

LOW

Date Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

(μ g/L or μ g/Kg) UG/L

Q

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	930	E
108-88-3	Toluene	210	E
100-41-4	Ethylbenzene	350	E
1330-20-7	Xylene (total)	500	E

2/16/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/60-64DL

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS044
Matrix: (soil/water) WATER Lab Sample ID: 0813520-002ADL
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62393.D
Level: (low/med) LOW Date Received: 11/20/08
% Moisture: not dec. Date Analyzed: 11/25/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 10.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	630	D
108-88-3	Toluene	170	D
100-41-4	Ethylbenzene	260	D
1330-20-7	Xylene (total)	410	D

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813520-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43759.DLevel: (low/med) LOWDate Received: 11/20/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/22/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μ g/L or μ g/Kg) UG/L Q

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	<u>530 390</u>	<u>ND</u>
91-57-6	2-Methylnaphthalene	36	
208-96-8	Acenaphthylene	23	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	4	J
85-01-8	Phenanthrene	4	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/10/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-002BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43772.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 10.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	530	D
91-57-6	2-Methylnaphthalene	33	DJ
208-96-8	Acenaphthylene	26	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-100/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813569-001ASample wt/vol: 5(g/mL) MLLab File ID: A\A62399.D

Level: (low/med)

LOWDate Received: 11/21/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	490 470	2 D J
108-88-3	Toluene	14	J
100-41-4	Ethylbenzene	3	J
1330-20-7	Xylene (total)	240	J

2/16/09
m

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-100/70-74DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813569-001ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A62417.D

Level: (low/med)

LOWDate Received: 11/21/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	490	D
108-88-3	Toluene	12	D
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	230	D

2/16/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

100/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813569-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43863.D

Level: (low/med) LOW

Date Received: 11/21/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/27/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>1400</u> 900	B <u>DJ</u>
91-57-6	2-Methylnaphthalene	<u>330</u> 250	B <u>D</u>
208-96-8	Acenaphthylene	67	
83-32-9	Acenaphthene	7	J
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/70-74DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813569-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43886.DLevel: (low/med) LOWDate Received: 11/21/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/26/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/01/08Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	1400		D
91-57-6	2-Methylnaphthalene	330		D
208-96-8	Acenaphthylene	95		DJ
83-32-9	Acenaphthene	200		U
86-73-7	Fluorene	200		U
85-01-8	Phenanthrene	200		U
120-12-7	Anthracene	200		U
206-44-0	Fluoranthene	200		U
129-00-0	Pyrene	200		U
56-55-3	Benzo(a)anthracene	200		U
218-01-9	Chrysene	200		U
205-99-2	Benzo(b)fluoranthene	200		U
207-08-9	Benzo(k)fluoranthene	200		U
50-32-8	Benzo(a)pyrene	200		U
193-39-5	Indeno(1,2,3-cd)pyrene	200		U
53-70-3	Dibenzo(a,h)anthracene	200		U
191-24-2	Benzo(g,h,i)perylene	200		U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

20081121-FD-1

(H15B-100/70-74)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813569-003ASample wt/vol: 5(g/mL) MLLab File ID: A\A62400.D

Level: (low/med)

LOWDate Received: 11/21/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>400</u> 178	# D
108-88-3	Toluene	14	
100-41-4	Ethylbenzene	3	
1330-20-7	Xylene (total)	250	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081121-FD-1DL

(HISG-100/70-74)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID:

0813569-003ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A624\8.D

Level: (low/med)

LOW

Date Received:

11/21/08

% Moisture: not dec.

Date Analyzed:

11/26/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
71-43-2	Benzene	400	D
108-88-3	Toluene	10	D
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	190	D

2/6/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081121-FD-1
(115B-100/70-74)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813569-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43865.D

Level: (low/med) LOW

Date Received: 11/21/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/27/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	1300 930	B DJ
91-57-6	2-Methylnaphthalene	300 260	B D
208-96-8	Acenaphthylene	69	
83-32-9	Acenaphthene	7	J
86-73-7	Fluorene	6	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

10
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081121-FD-1DL

(HISB-100/70-74)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813569-003BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43887.D

Level: (low/med) LOW

Date Received: 11/21/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/01/08

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
91-20-3	Naphthalene	1300	D
91-57-6	2-Methylnaphthalene	300	D
208-96-8	Acenaphthylene	87	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-100/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813569-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62411.D

Level: (low/med)

LOW

Date Received: 11/21/08

% Moisture: not dec.

Date Analyzed: 11/26/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	12	J
108-88-3	Toluene	3	J
100-41-4	Ethylbenzene	2	J
1330-20-7	Xylene (total)	5	J

2/16/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

100/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813569-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43864.DLevel: (low/med) LOWDate Received: 11/21/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/26/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 11/27/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	18	J
91-57-6	2-Methylnaphthalene	3	J
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/10/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813480-003ASample wt/vol: 5 (g/mL) MLLab File ID: A\A62295.DLevel: (low/med) LOWDate Received: 11/19/08

% Moisture: not dec.

Date Analyzed: 11/21/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	49	
108-88-3	Toluene	7	
100-41-4	Ethylbenzene	5	
1330-20-7	Xylene (total)	61	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813480-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43754.D

Level: (low/med) LOW

Date Received: 11/19/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/21/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>96</u> 85	85 <u>96</u>
91-57-6	2-Methylnaphthalene	31	
208-96-8	Acenaphthylene	35	
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	8	J
85-01-8	Phenanthrene	11	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	1	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/10/09
2

IC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813480-003BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43769.D

Level: (low/med) LOW

Date Received: 11/19/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 2.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPP

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	96	D
91-57-6	2-Methylnaphthalene	35	D
208-96-8	Acenaphthylene	41	D
83-32-9	Acenaphthene	7	DJ
86-73-7	Fluorene	9	DJ
85-01-8	Phenanthrene	13	DJ
120-12-7	Anthracene	2	DJ
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenzo(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) Cannot be separated from Diphenylamine

2/10/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813480-003

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-101/GW/30-34

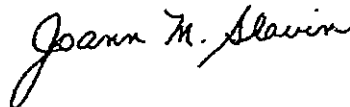
Collected : 11/19/2008 9:50:00 AM
Received : 11/19/2008 4:30:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	31.8		4	mg/L	SM2320B	11/24/2008 12:43 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	11/20/2008 11:28 AM
Nitrate as N	0.32		1	mg/L	E353.2	12/03/2008 9:23 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	11/20/2008 8:40 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/11/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081119-FD-1

(115B-101/30-34)

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS044
Matrix: (soil/water) WATER Lab Sample ID: 0813480-004A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62305.D
Level: (low/med) LOW Date Received: 11/19/08
% Moisture: not dec. Date Analyzed: 11/22/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) UG/L	Q
71-43-2	Benzene	46	
108-88-3	Toluene	5	
100-41-4	Ethylbenzene	4	
1330-20-7	Xylene (total)	58	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

20081119-FD-1

(HISB-101/30-34)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813480-004BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43757.DLevel: (low/med) LOWDate Received: 11/19/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/21/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	62	
91-57-6	2-Methylnaphthalene	24	
208-96-8	Acenaphthylene	27	
83-32-9	Acenaphthene	4	J
86-73-7	Fluorene	6	J
85-01-8	Phenanthrene	8	J
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.

Wayne, NJ 14203

Attn To : Kevin Connare

Lab No. : 0813480-004

Sample Information...

Type : Groundwater

Origin:

Client ID. : 20081119-FD-1

Collected : 11/19/2008 9:50:00 AM

Received : 11/19/2008 4:30:00 PM

Collected By Client

Copies To : Original

CC

(H15B-101/30-34)

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	24.2		2	mg/L	SM2320B	11/24/2008 12:53 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	11/20/2008 11:32 AM
Nitrate as N	0.22		1	mg/L	E353.2	12/03/2008 9:24 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	11/20/2008 8:42 AM

Qualifiers: E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/11/2008

Joann M. Slawin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-101/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-003A

Sample wt/vol: 5 (g/mL) ML

Lab File ID: A\A62394.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/25/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(µg/L or µg/Kg)	UG/L	
71-43-2	Benzene		1900	E
106-88-3	Toluene		1200	E
100-41-4	Ethylbenzene		720	E
1330-20-7	Xylene (total)		1400	E

2/16/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813520-003ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A62414.D

Level: (low/med)

LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 50.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	7400	D
108-88-3	Toluene	3400	D
100-41-4	Ethylbenzene	1000	D
1330-20-7	Xylene (total)	2300	D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43760.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/22/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	340 2300	ED
91-57-6	2-Methylnaphthalene	620 610	ED
208-96-8	Acenaphthylene	250 130	EDJ
83-32-9	Acenaphthene	12	
86-73-7	Fluorene	32	
85-01-8	Phenanthrene	37	
120-12-7	Anthracene	5	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/16/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-003BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43773.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 50.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPP

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	3400	D
91-57-6	2-Methylnaphthalene	620	D
208-96-8	Acenaphthylene	250	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813520-004ASample wt/vol: 5(g/mL) MLLab File ID: A\A62395.D

Level: (low/med)

LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/25/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1300	E
108-88-3	Toluene	280	E
100-41-4	Ethylbenzene	250	E
1330-20-7	Xylene (total)	780	E

2/16/09
2/2

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID:

0813520-004ADLSample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62415.D

Level: (low/med)

LOW

Date Received:

11/20/08

% Moisture: not dec.

Date Analyzed:

11/26/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

20.00

Soil Extract Volume:

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	2300	D
108-88-3	Toluene	340	D
100-41-4	Ethylbenzene	300	D
1330-20-7	Xylene (total)	1100	D

IC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43761.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/22/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	280 2200	E-D
91-57-6	2-Methylnaphthalene	140 190	E-D
208-96-8	Acenaphthylene	210 140	E-D
83-32-9	Acenaphthene	15	
86-73-7	Fluorene	39	
85-01-8	Phenanthrene	34	
120-12-7	Anthracene	6	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-004BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43774.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 50.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	2800	D
91-57-6	2-Methylnaphthalene	140	DJ
208-96-8	Acenaphthylene	210	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

2/10/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813520-004

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-101/GW/50-54

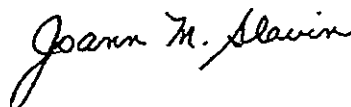
Collected : 11/19/2008 1:30:00 PM
Received : 11/20/2008 4:12:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	143		10	mg/L	SM2320B	11/24/2008 1:05 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	11/21/2008 10:59 AM
Nitrate as N	0.29		1	mg/L	E353.2	12/03/2008 9:20 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	11/21/2008 8:56 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/11/2008



Laboratory Manager

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813520-005ASample wt/vol: 5(g/mL) MLLab File ID: A\A62396.D

Level: (low/med)

LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg)	UG/L	Q
71-43-2	Benzene	1200	910	0
108-88-3	Toluene		94	
100-41-4	Ethylbenzene		71	
1330-20-7	Xylene (total)	630	520	0

2/16/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISE-101/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813520-005ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A62416.D

Level: (low/med)

LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1200	D
108-88-3	Toluene	98	D
100-41-4	Ethylbenzene	73	D
1330-20-7	Xylene (total)	630	D

2/16/09
✓

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43762.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/22/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	<u>1900</u>	<u>1300</u>	<u>✓ D</u>
91-57-6	2-Methylnaphthalene		18	
208-96-8	Acenaphthylene	<u>120</u>	<u>91</u>	<u>✓ DJ</u>
83-32-9	Acenaphthene		9	J
86-73-7	Fluorene		18	
85-01-8	Phenanthrene		9	J
120-12-7	Anthracene		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenzo(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

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EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

101/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 08Q3520-005BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C43775.DLevel: (low/med) LOWDate Received: 11/20/08% Moisture: Decanted: (Y/N) NDate Extracted: 11/21/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 11/24/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	1900	D
91-57-6	2-Methylnaphthalene	500	U
208-96-8	Acenaphthylene	120	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-101/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water)

WATER

Lab Sample ID: 0813520-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62412.D

Level: (low/med)

LOW

Date Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/26/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	
108-88-3	Toluene	3	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-006B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43767.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/24/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	4	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-101/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044Matrix: (soil/water) WATERLab Sample ID: 0813520-007ASample wt/vol: 5 (g/mL) MLLab File ID: A\A62413.DLevel: (low/med) LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/26/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

101/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813520-007B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C43764.D

Level: (low/med) LOW

Date Received: 11/20/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 11/21/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/22/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	2	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813812-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62470.D

Level: (low/med)

LOW

Date Received: 12/01/08

% Moisture: not dec.

Date Analyzed: 12/02/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	27	
108-88-3	Toluene	73	
100-41-4	Ethylbenzene	500 410	EDJ
1330-20-7	Xylene (total)	1200 920	EDJ

2/17/09
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1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-102/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813812-001ADLSample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62514.D

Level: (low/med)

LOW

Date Received:

12/01/08

% Moisture: not dec.

Date Analyzed:

12/04/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	28	D
108-88-3	Toluene	80	D
100-41-4	Ethylbenzene	500	D
1330-20-7	Xylene (total)	1200	D

2/17/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813812-001BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28365.DLevel: (low/med) LOWDate Received: 12/01/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/03/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L Q

91-20-3	Naphthalene	2200 1200	ED
91-57-6	2-Methylnaphthalene	380 400	ED
208-96-8	Acenaphthylene	46	
83-32-9	Acenaphthene	28	
86-73-7	Fluorene	24	
85-01-8	Phenanthrene	23	
120-12-7	Anthracene	5	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/12/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813812-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28384.DLevel: (low/med) LOWDate Received: 12/01/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/04/08Injection Volume: 2 (μ L)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	2200	D
91-57-6	2-Methylnaphthalene	380	DJ
208-96-8	Acenaphthylene	53	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

2/17/09
e

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.

Wayne, NJ 14203

Attn To : Kevin Connare

Lab No. : 0813812-001

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-102/GW/30-34

Collected : 12/1/2008 11:00:00 AM

Received : 12/1/2008 4:30:00 PM

Collected By Client

Copies To : Original

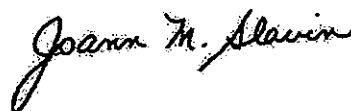
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	97.5		10	mg/L	SM2320B	12/10/2008 12:36 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/02/2008 5:34 PM
Nitrate as N	0.12		1	mg/L	E353.2	12/04/2008 3:39 PM
Ortho Phosphate	0.08		1	mg/L	SM4500-P E	12/02/2008 11:46 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813812-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62465.D

Level: (low/med)

LOW

Date Received: 12/01/08

% Moisture: not dec.

Date Analyzed: 12/02/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	39	J
108-88-3	Toluene	16	J
100-41-4	Ethylbenzene	440 340	2 DJ
1330-20-7	Xylene (total)	340 270	2 DJ

2/17/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/40-44DL

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813812-002ADL
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62515.D
Level: (low/med) LOW Date Received: 12/01/08
% Moisture: not dec. Date Analyzed: 12/04/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 5.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

		CONCENTRATION UNITS:		
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q	
71-43-2	Benzene	42	D	
108-88-3	Toluene	18	D	
100-41-4	Ethylbenzene	440	D	
1330-20-7	Xylene (total)	340	D	

2/12/09
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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813812-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28368.D

Level: (low/med) LOW

Date Received: 12/01/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/03/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	700 390		PD
91-57-6	2-Methylnaphthalene	140 120		PD
208-96-8	Acenaphthylene	33		
83-32-9	Acenaphthene	110 88		PD
86-73-7	Fluorene	53		
85-01-8	Phenanthrene	64		
120-12-7	Anthracene	13		
206-44-0	Fluoranthene	3		J
129-00-0	Pyrene	3		J
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

2/17/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813812-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28385.DLevel: (low/med) LOWDate Received: 12/01/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/04/08Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L Q

91-20-3	Naphthalene	700	D
91-57-6	2-Methylnaphthalene	140	DJ
208-96-8	Acenaphthylene	36	DJ
83-32-9	Acenaphthene	110	DJ
86-73-7	Fluorene	60	DJ
85-01-8	Phenanthrene	78	DJ
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

2/17/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/50-54

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047

Matrix: (soil/water) WATER Lab Sample ID: 0813856-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62519.D

Level: (low/med) LOW Date Received: 12/02/08

% Moisture: not dec. Date Analyzed: 12/04/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	3	
1330-20-7	Xylene (total)	220	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28372.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>2000</u> 1200	B <u>D</u>
91-57-6	2-Methylnaphthalene	<u>470</u> 480	B <u>DJ</u>
208-96-8	Acenaphthylene	<u>190</u> 150	B <u>DJ</u>
83-32-9	Acenaphthene	17	
86-73-7	Fluorene	41	
85-01-8	Phenanthrene	13	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813856-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28387.DLevel: (low/med) LOWDate Received: 12/02/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/04/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	2000		D
91-57-6	2-Methylnaphthalene	470		DJ
208-96-8	Acenaphthylene	190		DJ
83-32-9	Acenaphthene	500		U
86-73-7	Fluorene	500		U
85-01-8	Phenanthrene	500		U
120-12-7	Anthracene	500		U
206-44-0	Fluoranthene	500		U
129-00-0	Pyrene	500		U
56-55-3	Benzo(a)anthracene	500		U
218-01-9	Chrysene	500		U
205-99-2	Benzo(b)fluoranthene	500		U
207-08-9	Benzo(k)fluoranthene	500		U
50-32-8	Benzo(a)pyrene	500		U
193-39-5	Indeno(1,2,3-cd)pyrene	500		U
53-70-3	Dibenzo(a,h)anthracene	500		U
191-24-2	Benzo(g,h,i)perylene	500		U

(1) Cannot be separated from Diphenylamine

2/17/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813856-001

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-102/GW/50-54

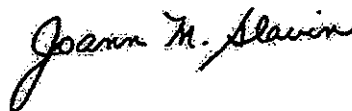
Collected : 12/1/2008 1:45:00 PM
Received : 12/2/2008 3:20:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	49.8		4	mg/L	SM2320B	12/10/2008 12:57 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/02/2008 5:44 PM
Nitrate as N	0.54		1	mg/L	E353.2	12/04/2008 3:42 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/03/2008 8:04 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/60-64

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813856-002A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62520.D
Level: (low/med) LOW Date Received: 12/02/08
% Moisture: not dec. Date Analyzed: 12/04/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28373.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	5	<u>75</u>
91-57-6	2-Methylnaphthalene	3	<u>75</u>
208-96-8	Acenaphthylene	2	<u>5</u>
83-32-9	Acenaphthene	10	<u>U</u>
86-73-7	Fluorene	10	<u>U</u>
85-01-8	Phenanthrene	10	<u>U</u>
120-12-7	Anthracene	10	<u>U</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/18/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/70-74

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813856-003A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62521.D
Level: (low/med) LOW Date Received: 12/02/08
% Moisture: not dec. Date Analyzed: 12/05/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	0
108-88-3	Toluene	1	0
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	1	0

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28374.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	4		J
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813976-003

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-105/GW/50-54

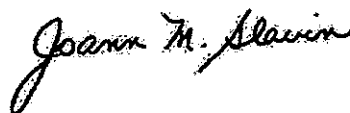
Collected : 12/4/2008 10:45:00 AM
Received : 12/4/2008 4:00:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	61.0		5	mg/L	SM2320B	12/10/2008 4:16 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/05/2008 1:17 PM
Nitrate as N	0.10		1	mg/L	E353.2	12/08/2008 3:41 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/05/2008 9:30 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/10/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102/80-84

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813856-004A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62525.D
Level: (low/med) LOW Date Received: 12/02/08
% Moisture: not dec. Date Analyzed: 12/05/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	2	
108-88-3	Toluene	18	
100-41-4	Ethylbenzene	22	
1330-20-7	Xylene (total)	34	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813856-004BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28406.DLevel: (low/med) LOWDate Received: 12/02/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/05/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/05/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L Q

91-20-3	Naphthalene	<u>100</u> 96	<u>ED</u>
91-57-6	2-Methylnaphthalene	16	
208-96-8	Acenaphthylene	6	J
83-32-9	Acenaphthene	3	J
86-73-7	Fluorene	2	J
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/17/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

102/GW/80-84DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813856-004BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28407.DLevel: (low/med) LOWDate Received: 12/02/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/05/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/05/08Injection Volume: 2 (μL)Dilution Factor: 2.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

91-20-3	Naphthalene	100	D
91-57-6	2-Methylnaphthalene	16	DJ
208-96-8	Acenaphthylene	6	DJ
83-32-9	Acenaphthene	3	DJ
86-73-7	Fluorene	20	U
85-01-8	Phenanthrene	2	DJ
120-12-7	Anthracene	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenzo(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) Cannot be separated from Diphenylamine

2/17/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-102-

2/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID: 0901220-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62933.D

Level: (low/med)

LOW

Date Received: 01/08/09

% Moisture: not dec.

Date Analyzed: 01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	12	
108-88-3	Toluene	21	<u>5</u>
100-41-4	Ethylbenzene	190	
1330-20-7	Xylene (total)	200	

2/26/09
ms

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB102-2/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water) WATER

Lab Sample ID: 0901220-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 9\N28771.D

Level: (low/med) LOW

Date Received: 01/08/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/09/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/09/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	670	440	ND
91-57-6	2-Methylnaphthalene	120	140	ND
208-96-8	Acenaphthylene		20	
83-32-9	Acenaphthene		25	
86-73-7	Fluorene		11	
85-01-8	Phenanthrene		11	
120-12-7	Anthracene		2	J
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenzo(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

(1) Cannot be separated from Diphenylamine

2/26/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901220-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28777.DLevel: (low/med) LOWDate Received: 01/08/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/13/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

91-20-3	Naphthalene	670	D
91-57-6	2-Methylnaphthalene	120	D
208-96-8	Acenaphthylene	21	DJ
83-32-9	Acenaphthene	28	DJ
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	12	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/20/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H158-102-

2/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID:

0901220-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62934.D

Level: (low/med)

LOW

Date Received:

01/08/09

% Moisture: not dec.

Date Analyzed:

01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	23	
108-88-3	Toluene	11	<u>J</u>
100-41-4	Ethylbenzene	<u>250</u> 200	<u>ED</u>
1330-20-7	Xylene (total)	180	

2/20/09
2

KEY-URS055 S32

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID: 0901220-002ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62948.D

Level: (low/med)

LOW

Date Received: 01/08/09

% Moisture: not dec.

Date Analyzed: 01/13/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 2.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	19	D
108-88-3	Toluene	9	D
100-41-4	Ethylbenzene	250	D
1330-20-7	Xylene (total)	150	D

2/20/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB102-2/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water) WATER

Lab Sample ID: 0901220-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 9\N28772.D

Level: (low/med) LOW

Date Received: 01/08/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/09/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/09/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	<u>150</u> 120	<u>R</u> D
91-57-6	2-Methylnaphthalene	11	
208-96-8	Acenaphthylene	57	
83-32-9	Acenaphthene	20	
86-73-7	Fluorene	17	
85-01-8	Phenanthrene	17	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901220-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28778.DLevel: (low/med) LOWDate Received: 01/08/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/13/09Injection Volume: 2 (μ L)Dilution Factor: 4.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	150	D
91-57-6	2-Methylnaphthalene	12	DJ
208-96-8	Acenaphthylene	66	D
83-32-9	Acenaphthene	22	DJ
86-73-7	Fluorene	19	DJ
85-01-8	Phenanthrene	18	DJ
120-12-7	Anthracene	40	U
206-44-0	Fluoranthene	40	U
129-00-0	Pyrene	40	U
56-55-3	Benzo(a)anthracene	40	U
218-01-9	Chrysene	40	U
205-99-2	Benzo(b)fluoranthene	40	U
207-08-9	Benzo(k)fluoranthene	40	U
50-32-8	Benzo(a)pyrene	40	U
193-39-5	Indeno(1,2,3-cd)pyrene	40	U
53-70-3	Dibenzo(a,h)anthracene	40	U
191-24-2	Benzo(g,h,i)perylene	40	U

(1) Cannot be separated from Diphenylamine

2/26/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-102-

2/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID:

0901220-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62935.D

Level: (low/med)

LOW

Date Received:

01/08/09

% Moisture: not dec.

Date Analyzed:

01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	
71-43-2	Benzene	5	5
108-88-3	Toluene	4	5
100-41-4	Ethylbenzene	110	
1330-20-7	Xylene (total)	230	

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901220-003BSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28773.DLevel: (low/med) LOWDate Received: 01/08/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/09/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μ g/L or μ g/Kg) UG/L Q

91-20-3	Naphthalene	360 230	80
91-57-6	2-Methylnaphthalene	30	
208-96-8	Acenaphthylene	170 130	20
83-32-9	Acenaphthene	23	
86-73-7	Fluorene	35	
85-01-8	Phenanthrene	26	
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901220-003BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28779.DLevel: (low/med) LOWDate Received: 01/08/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/13/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	360	D
91-57-6	2-Methylnaphthalene	33	DJ
208-96-8	Acenaphthylene	170	D
83-32-9	Acenaphthene	27	DJ
86-73-7	Fluorene	39	DJ
85-01-8	Phenanthrene	29	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/26/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H158-102-

2/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID: 0901190-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62928.D

Level: (low/med)

LOW

Date Received: 01/07/09

% Moisture: not dec.

Date Analyzed: 01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	15	J
108-88-3	Toluene	10	U R
100-41-4	Ethylbenzene	4	J
1330-20-7	Xylene (total)	49	+

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901190-001BSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28768.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/09/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	320 280	SD
91-57-6	2-Methylnaphthalene	75	
208-96-8	Acenaphthylene	28	
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	9	J
85-01-8	Phenanthrene	10	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/26/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901190-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28776.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/13/09Injection Volume: 2 (μ L)Dilution Factor: 5.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION/UNITS:

CAS NO.

COMPOUND

(μg/L or μg/kg) UG/L

Q

91-20-3	Naphthalene	320	D
91-57-6	2-Methylnaphthalene	88	D
208-96-8	Acenaphthylene	31	DJ
83-32-9	Acenaphthene	10	DJ
86-73-7	Fluorene	9	DJ
85-01-8	Phenanthrene	12	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-102 -

2/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID:

0901190-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62929.D

Level: (low/med)

LOW

Date Received:

01/07/09

% Moisture: not dec.

Date Analyzed:

01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>10</u>	<u>U R</u>
108-88-3	Toluene	<u>10</u>	<u>U R</u>
100-41-4	Ethylbenzene	<u>2</u>	<u>J</u>
1330-20-7	Xylene (total)	<u>3</u>	<u>J</u>

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901190-002BSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28769.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/09/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	5		J
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-102-

2/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID: 0901190-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62930.D

Level: (low/med)

LOW

Date Received: 01/07/09

% Moisture: not dec.

Date Analyzed: 01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	10	U R
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

2/26/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB102-2/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055Matrix: (soil/water) WATERLab Sample ID: 0901190-003BSample wt/vol: 1000 (g/mL) MLLab File ID: 9\N28770.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/09/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	1	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813812-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62517.D

Level: (low/med)

LOW

Date Received: 12/01/08

% Moisture: not dec.

Date Analyzed: 12/04/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

103/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813812-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28369.D

Level: (low/med) LOW

Date Received: 12/01/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/03/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Kevin Connare

Lab No. : 0813812-003

Client ID. : HISB-103/GW/30-34

Sample Information...

Type : Groundwater

Origin:

Collected : 12/1/2008 9:40:00 AM

Received : 12/1/2008 4:30:00 PM

Collected By Client

Copies To : Original

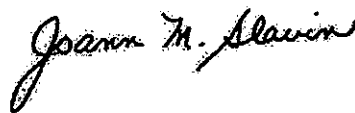
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	34.6		1	mg/L	SM2320B	12/10/2008 12:43 PM
Nitrite as N	0.66		1	mg/L	E353.2	12/02/2008 5:38 PM
Nitrate as N	23.6		100	mg/L	E353.2	12/04/2008 4:01 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/02/2008 11:48 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/40-44

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813812-004A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62467.D
Level: (low/med) LOW Date Received: 12/01/08
% Moisture: not dec. Date Analyzed: 12/02/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	2	J
108-88-3	Toluene	1	U R
100-41-4	Ethylbenzene	2	J
1330-20-7	Xylene (total)	1	U R

2/17/09
e

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

103/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813812-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28370.D

Level: (low/med) LOW

Date Received: 12/01/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	1	J
85-01-8	Phenanthrene	5	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813812-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62468.D

Level: (low/med)

LOW

Date Received: 12/01/08

% Moisture: not dec.

Date Analyzed: 12/02/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	3	
108-88-3	Toluene	8	
100-41-4	Ethylbenzene	1	
1330-20-7	Xylene (total)	72	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

103/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813812-005BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28371.DLevel: (low/med) LOWDate Received: 12/01/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/04/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>150</u> 110	<u>F</u> J
91-57-6	2-Methylnaphthalene	7	J
208-96-8	Acenaphthylene	9	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	3	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/17/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

103/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813812-005BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28386.DLevel: (low/med) LOWDate Received: 12/01/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/03/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/04/08Injection Volume: 2 (μL)Dilution Factor: 4.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	150	D
91-57-6	2-Methylnaphthalene	7	DJ
208-96-8	Acenaphthylene	10	DJ
83-32-9	Acenaphthene	40	U
86-73-7	Fluorene	40	U
85-01-8	Phenanthrene	40	U
120-12-7	Anthracene	40	U
206-44-0	Fluoranthene	40	U
129-00-0	Pyrene	40	U
56-55-3	Benzo(a)anthracene	40	U
218-01-9	Chrysene	40	U
205-99-2	Benzo(b)fluoranthene	40	U
207-08-9	Benzo(k)fluoranthene	40	U
50-32-8	Benzo(a)pyrene	40	U
193-39-5	Indeno(1,2,3-cd)pyrene	40	U
53-70-3	Dibenzo(a,h)anthracene	40	U
191-24-2	Benzo(g,h,i)perylene	40	U

(1) Cannot be separated from Diphenylamine

2/17/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813812-005

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-103/GW/50-54

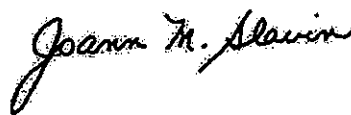
Collected : 12/1/2008 11:40:00 AM
Received : 12/1/2008 4:30:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	58.2		5	mg/L	SM2320B	12/10/2008 12:50 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/02/2008 5:39 PM
Nitrate as N	0.19		1	mg/L	E353.2	12/04/2008 3:41 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/02/2008 11:50 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813856-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62522.D

Level: (low/med)

LOW

Date Received:

12/02/08

% Moisture: not dec.

Date Analyzed:

12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

103/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28376.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813976-005

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-105/GW/70-74

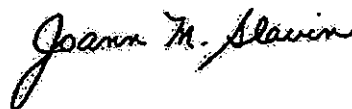
Collected : 12/4/2008 1:45:00 PM
Received : 12/4/2008 4:00:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	90.2		5	mg/L	SM2320B	12/10/2008 4:24 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/05/2008 1:19 PM
Nitrate as N	0.13		1	mg/L	E353.2	12/08/2008 3:42 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/05/2008 9:32 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/10/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813856-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62523.D

Level: (low/med)

LOW

Date Received: 12/02/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

103/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-006B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28377.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		U
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-103/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813856-007A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62524.D

Level: (low/med)

LOW

Date Received: 12/02/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	5	
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

103/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813856-007B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28378.D

Level: (low/med) LOW

Date Received: 12/02/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/03/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	1	✓ J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	1	✓ J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	1	✓ J
129-00-0	Pyrene	2	✓ J
56-55-3	Benzo(a)anthracene	1	✓ J
218-01-9	Chrysene	2	✓ J
205-99-2	Benzo(b)fluoranthene	1	✓ J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

103/GW/80-84RE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813856-007BRESample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28543.DLevel: (low/med) LOWDate Received: 12/02/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/17/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/17/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	10	U	U
91-57-6	2-Methylnaphthalene	10	U	U
208-96-8	Acenaphthylene	10	U	U
83-32-9	Acenaphthene	10	U	U
86-73-7	Fluorene	10	U	U
85-01-8	Phenanthrene	10	U	U
120-12-7	Anthracene	10	U	U
206-44-0	Fluoranthene	10	U	U
129-00-0	Pyrene	10	U	U
56-55-3	Benzo(a)anthracene	10	U	U
218-01-9	Chrysene	10	U	U
205-99-2	Benzo(b)fluoranthene	10	U	U
207-08-9	Benzo(k)fluoranthene	10	U	U
50-32-8	Benzo(a)pyrene	10	U	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	U
53-70-3	Dibenzo(a,h)anthracene	10	U	U
191-24-2	Benzo(g,h,i)perylene	10	U	U

(1) Cannot be separated from Diphenylamine

8 days past
H.T.2/17/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-104/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030

Matrix: (soil/water)

WATERLab Sample ID: 0811400-001ASample wt/vol: 5(g/mL) MLLab File ID: A\A61234.D

Level: (low/med)

LOWDate Received: 09/24/08

% Moisture: not dec.

Date Analyzed: 09/29/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-104/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030Matrix: (soil/water) WATERLab Sample ID: 0811400-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C42916.DLevel: (low/med) LOWDate Received: 09/24/08% Moisture: Decanted: (Y/N) NDate Extracted: 09/25/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 09/26/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	10	U	
91-57-6	2-Methylnaphthalene	10	U	
208-96-8	Acenaphthylene	10	U	
83-32-9	Acenaphthene	10	U	
86-73-7	Fluorene	10	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0811400-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-104/30-34

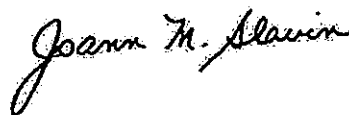
Collected : 9/24/2008 12:00:00 PM
Received : 9/24/2008 3:20:00 PM
Collected By : Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	63.7		2	mg/L	SM2320B	10/02/2008 12:02 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	09/25/2008 8:55 AM
Nitrate as N	4.84		5	mg/L	E353.2	09/26/2008 4:22 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	09/25/2008 10:34 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/2/2008



Laboratory Manager

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-104/45-49

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030

Matrix: (soil/water)

WATERLab Sample ID: 0811462-001ASample wt/vol: 5(g/mL) MLLab File ID: A\A61236.D

Level: (low/med)

LOWDate Received: 09/25/08

% Moisture: not dec.

Date Analyzed: 09/29/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-104/45-49

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030Matrix: (soil/water) WATERLab Sample ID: 0811462-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C42924.DLevel: (low/med) LOWDate Received: 09/25/08% Moisture: Decanted: (Y/N) NDate Extracted: 09/26/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 09/29/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene : A	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-104/55-59

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030

Matrix: (soil/water)

WATER

Lab Sample ID:

0811462-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A61237.D

Level: (low/med)

LOW

Date Received:

09/25/08

% Moisture: not dec.

Date Analyzed:

09/29/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-104/55-59

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030Matrix: (soil/water) WATERLab Sample ID: 0811462-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C42925.DLevel: (low/med) LOWDate Received: 09/25/08% Moisture: Decanted: (Y/N) NDate Extracted: 09/26/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 09/29/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0811462-002

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-104/55-59

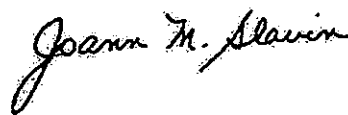
Collected : 9/25/2008 1:15:00 PM
Received : 9/25/2008 2:55:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	15.9		2	mg/L	SM2320B	10/02/2008 12:10 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	09/26/2008 11:15 AM
Nitrate as N	3.66		5	mg/L	E353.2	09/26/2008 4:24 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	09/26/2008 7:42 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/2/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813976-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62535.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U <u>2</u>
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U <u>1</u>

2/17/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813976-001BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28421.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/07/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/08/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U ⁵
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/15/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813976-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62536.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U *
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

3/18/09
~

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813976-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28422.D

Level: (low/med) LOW

Date Received: 12/04/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/07/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/08/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>410</u> 240	E <u>D</u>
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	44	
83-32-9	Acenaphthene	18	
86-73-7	Fluorene	17	
85-01-8	Phenanthrene	22	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	1	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U <u>J</u>
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/17/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.:

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813976-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28439.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/07/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/09/08Injection Volume: 2 (μ L)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	110	D
91-57-6	2-Methylnaphthalene	100	U
208-96-8	Acenaphthylene	53	DJ
83-32-9	Acenaphthene	22	DJ
86-73-7	Fluorene	20	DJ
85-01-8	Phenanthrene	27	DJ
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/17/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813976-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62537.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	6	J
108-88-3	Toluene	33	
100-41-4	Ethylbenzene	160	
1330-20-7	Xylene (total)	270	↓

2/17/09
a

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813976-003BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28423.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/07/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/08/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/18/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-105/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813976-004ASample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62538.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/05/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume _____

(µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	3	J
108-88-3	Toluene	230	J D J
100-41-4	Ethylbenzene	190	J
1330-20-7	Xylene (total)	620 520	J D J

2/17/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813976-004ADLSample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62589.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/10/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	230	D
100-41-4	Ethylbenzene	190	D
1330-20-7	Xylene (total)	620	D

21769
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813976-004BSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28424.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/07/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/08/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	<u>2400</u> 1400	B-D
91-57-6	2-Methylnaphthalene	<u>430</u> 450	B-D
208-96-8	Acenaphthylene	<u>180</u> 130	B-D
83-32-9	Acenaphthene	13	
86-73-7	Fluorene	25	
85-01-8	Phenanthrene	8	J
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/17/09
2

KEY-URS047 S85

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Matrix: (soil/water) WATERLab Sample ID: 0813976-004BDLSample wt/vol: 1000 (g/mL) MLLab File ID: 8\N28440.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/07/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/09/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L Q

CAS NO.	COMPOUND		
91-20-3	Naphthalene	2400	D
91-57-6	2-Methylnaphthalene	430	DJ
208-96-8	Acenaphthylene	180	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

2/17/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813976-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62539.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume _____

(µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	4	5
108-88-3	Toluene	4	1
100-41-4	Ethylbenzene	12	1
1330-20-7	Xylene (total)	40	1

2/17/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water) WATER

Lab Sample ID: 0813976-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: 8\N28425.D

Level: (low/med) LOW

Date Received: 12/04/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/07/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/08/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	43	3
91-57-6	2-Methylnaphthalene	3	3
208-96-8	Acenaphthylene	12	
83-32-9	Acenaphthene	1	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/18/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814022-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62581.D

Level: (low/med)

LOW

Date Received:

12/05/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	7.0	
108-88-3	Toluene	2.6	
100-41-4	Ethylbenzene	99	
1330-20-7	Xylene (total)	170	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814022-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44017.DLevel: (low/med) LOWDate Received: 12/05/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/09/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	350 290	E D
91-57-6	2-Methylnaphthalene	77 80	A D5
208-96-8	Acenaphthylene	91 80	A D5
83-32-9	Acenaphthene	9	J
86-73-7	Fluorene	13	
85-01-8	Phenanthrene	6	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/26/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/80-84DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814022-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44033.DLevel: (low/med) LOWDate Received: 12/05/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/09/08Injection Volume: 2 (μ L)Dilution Factor: 10.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	380	D
91-57-6	2-Methylnaphthalene	77	DJ
208-96-8	Acenaphthylene	91	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	14	DJ
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/20/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814022-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62582.D

Level: (low/med) LOW

Date Received: 12/05/08

% Moisture: not dec.

Date Analyzed: 12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	5.7	
108-88-3	Toluene	9.9	
100-41-4	Ethylbenzene	8.6	
1330-20-7	Xylene (total)	24	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

105/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814022-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44018.DLevel: (low/med) LOWDate Received: 12/05/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/09/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>91</u> 84	ND
91-57-6	2-Methylnaphthalene	5	J
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/20/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105/GW/90-94DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814022-002BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44034.DLevel: (low/med) LOWDate Received: 12/05/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/09/08Injection Volume: 2 (μ L)Dilution Factor: 2.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	91	D
91-57-6	2-Methylnaphthalene	5	DJ
208-96-8	Acenaphthylene	3	DJ
83-32-9	Acenaphthene	20	U
86-73-7	Fluorene	20	U
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenzo(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) Cannot be separated from Diphenylamine

2/20/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-105-

2/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATERLab Sample ID: 0814495-001ASample wt/vol: 5(g/mL) MLLab File ID: A\A62765.D

Level: (low/med)

LOWDate Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/22/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U R
108-88-3	Toluene	5	J
100-41-4	Ethylbenzene	3	I
1330-20-7	Xylene (total)	7	I

2/24/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H15B-105

2/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814495-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44278.DLevel: (low/med) LOWDate Received: 12/18/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/23/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/29/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	18	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-105

2/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814495-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62766.D

Level: (low/med)

LOW

Date Received:

12/18/08

% Moisture: not dec.

Date Analyzed:

12/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U R
108-88-3	Toluene	2	J
100-41-4	Ethylbenzene	4	
1330-20-7	Xylene (total)	8	J

2/24/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

11513-105-

2/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814495-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44279.DLevel: (low/med) LOWDate Received: 12/18/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/23/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/29/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	30	J
91-57-6	2-Methylnaphthalene	3	J
208-96-8	Acenaphthylene	2	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
e

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

H15B-105-

2/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS051

Matrix: (soil/water)

WATERLab Sample ID: 0814495-003ASample wt/vol: 5(g/mL) MLLab File ID: A\A62767.D

Level: (low/med)

LOWDate Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/22/08GC Column: ZB-524ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	9	5
108-88-3	Toluene	18	1
100-41-4	Ethylbenzene	70	1
1330-20-7	Xylene (total)	150	1

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

415B-105-

2/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44280.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/29/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	<u>800</u> 500	<u>J</u>
91-57-6	2-Methylnaphthalene	55	
208-96-8	Acenaphthylene	39	
83-32-9	Acenaphthene	11	
86-73-7	Fluorene	4	<u>J</u>
85-01-8	Phenanthrene	2	<u>J</u>
120-12-7	Anthracene	1	<u>J</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U J</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/24/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-105-

2/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814495-003BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44294.DLevel: (low/med) LOWDate Received: 12/18/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/23/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/29/08Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	800	DJ
91-57-6	2-Methylnaphthalene	56	DJ
208-96-8	Acenaphthylene	49	DJ
83-32-9	Acenaphthene	200	U
86-73-7	Fluorene	200	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

2/24/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-105-

2/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814495-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62768.D

Level: (low/med)

LOW

Date Received:

12/18/08

% Moisture: not dec.

Date Analyzed:

12/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	2	J
108-88-3	Toluene	88	I
100-41-4	Ethylbenzene	130	I
1330-20-7	Xylene (total)	340 220	EDJ

2/24/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-004ADL

Sample wt/vol: 5 (g/mL) ML

Lab File ID: A\A62788.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/23/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	5	U
108-88-3	Toluene	85	D
100-41-4	Ethylbenzene	130	D
1330-20-7	Xylene (total)	340	D <u>3</u>

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

415B-105

2/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44281.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/29/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	2300	1900	E OJ
91-57-6	2-Methylnaphthalene	390	460	E OJ
208-96-8	Acenaphthylene	180	120	E OJ
83-32-9	Acenaphthene		33	
86-73-7	Fluorene		30	
85-01-8	Phenanthrene		6	J
120-12-7	Anthracene		2	J
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
205-99-2	Benzo(b)fluoranthene		10	U J
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenzo(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

(1) Cannot be separated from Diphenylamine

2/24/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H15B-105-

2/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814495-004BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44295.DLevel: (low/med) LOWDate Received: 12/18/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/23/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/29/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPP

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

91-20-3	Naphthalene	2300	D
91-57-6	2-Methylnaphthalene	390	DJ
208-96-8	Acenaphthylene	180	DJ
83-32-9	Acenaphthene	500	U
86-73-7	Fluorene	500	U
85-01-8	Phenanthrene	500	U
120-12-7	Anthracene	500	U
206-44-0	Fluoranthene	500	U
129-00-0	Pyrene	500	U
56-55-3	Benzo(a)anthracene	500	U
218-01-9	Chrysene	500	U
205-99-2	Benzo(b)fluoranthene	500	U
207-08-9	Benzo(k)fluoranthene	500	U
50-32-8	Benzo(a)pyrene	500	U
193-39-5	Indeno(1,2,3-cd)pyrene	500	U
53-70-3	Dibenzo(a,h)anthracene	500	U
191-24-2	Benzo(g,h,i)perylene	500	U

(1) Cannot be separated from Diphenylamine

2/24/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

H1513-105-

2/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814495-005ASample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62769.D

Level: (low/med)

LOW

Date Received:

12/18/08

% Moisture: not dec.

Date Analyzed:

12/22/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	3	J
108-88-3	Toluene	3	I
100-41-4	Ethylbenzene	15	I
1330-20-7	Xylene (total)	38	I

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

105-2/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44282.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/29/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	18	<input checked="" type="checkbox"/>
91-57-6	2-Methylnaphthalene	2	<input checked="" type="checkbox"/>
208-96-8	Acenaphthylene	8	<input checked="" type="checkbox"/>
83-32-9	Acenaphthene	3	<input checked="" type="checkbox"/>
86-73-7	Fluorene	1	<input checked="" type="checkbox"/>
85-01-8	Phenanthrene	2	<input checked="" type="checkbox"/>
120-12-7	Anthracene	10	U <input checked="" type="checkbox"/>
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2/GW/70-74RE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44354.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/31/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/02/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	22	
91-57-6	2-Methylnaphthalene	6	J
208-96-8	Acenaphthylene	15	
83-32-9	Acenaphthene	14	
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	7	J
120-12-7	Anthracene	7	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-105- 2/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID: 0814495-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62770.D

Level: (low/med)

LOW

Date Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	3	J
108-88-3	Toluene	2	J
100-41-4	Ethylbenzene	2	J
1330-20-7	Xylene (total)	7	J

2/24/09
✓

IC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

4158-105-2/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-006B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44283.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/29/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	52	J
91-57-6	2-Methylnaphthalene	8	J
208-96-8	Acenaphthylene	6	J
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	1	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11513-105-

2/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814495-007A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62771.D

Level: (low/med)

LOW

Date Received:

12/18/08

% Moisture: not dec.

Date Analyzed:

12/22/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	11	J
108-88-3	Toluene	2	J
100-41-4	Ethylbenzene	1	UR
1330-20-7	Xylene (total)	11	J

2/24/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

H15B-105-

2/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814495-007BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44284.DLevel: (low/med) LOWDate Received: 12/18/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/23/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/29/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	190 150	EDJ
91-57-6	2-Methylnaphthalene	29	
208-96-8	Acenaphthylene	2	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U J
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/05

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB -

105-2/GW/90-94DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-007BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44298.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/30/08

Injection Volume: 2 (μL)

Dilution Factor: 5.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	190	D
91-57-6	2-Methylnaphthalene	32	DJ
208-96-8	Acenaphthylene	50	U
83-32-9	Acenaphthene	50	U
86-73-7	Fluorene	50	U
85-01-8	Phenanthrene	50	U
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

2/24/92

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

H15B-105-

2/GW/100-104

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS051

Matrix: (soil/water)

WATERLab Sample ID: 0814495-008ASample wt/vol: 5(g/mL) MLLab File ID: A\A62772.D

Level: (low/med)

LOWDate Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/22/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U R
108-88-3	Toluene	1	J
100-41-4	Ethylbenzene	1	U R
1330-20-7	Xylene (total)	1	U R

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

1415B-105

2/GW/100-104

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814495-008B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44285.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/23/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/29/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U <i>J</i>
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U <i>J</i>
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1B

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATERLab Sample ID: 0813977-001ASample wt/vol: 5(g/mL) MLLab File ID: A\A62540.D

Level: (low/med)

LOWDate Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(µg/L or µg/Kg) UG/L

Q

71-43-2	Benzene	46	
108-88-3	Toluene	19	
100-41-4	Ethylbenzene	3.0	
1330-20-7	Xylene (total)	350	260 <u>RD</u>

2/18/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0813977-001ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62585.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 2.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	41	D
108-88-3	Toluene	18	D
100-41-4	Ethylbenzene	2.7	D
1330-20-7	Xylene (total)	350	D

2/18/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0813977-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44043.D

Level: (low/med) LOW

Date Received: 12/04/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/08/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/10/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>510</u> 360	<u>ED</u>
91-57-6	2-Methylnaphthalene	32	
208-96-8	Acenaphthylene	27	
83-32-9	Acenaphthene	11	
86-73-7	Fluorene	14	
85-01-8	Phenanthrene	8	<u>J</u>
120-12-7	Anthracene	10	<u>U</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/20/09
a

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

106/GW/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-001BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44083.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	510	D
91-57-6	2-Methylnaphthalene	31	DJ
208-96-8	Acenaphthylene	32	DJ
83-32-9	Acenaphthene	12	DJ
86-73-7	Fluorene	15	DJ
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

2/20/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0813977-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62541.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(μ g/L or μ g/Kg)	UG/L	
71-43-2	Benzene	540	560	BD
108-88-3	Toluene		1.8	
100-41-4	Ethylbenzene	480	390	BD
1330-20-7	Xylene (total)		90	

2/22/09
2

KEY-URS048 S44

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0813977-002ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62586.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: 118 (mm)

Dilution Factor:

10.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	590	D
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	480	D
1330-20-7	Xylene (total)	76	D

2/20/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44044.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/10/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>270</u> 220	<u>ND</u>
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	48	
83-32-9	Acenaphthene	20	
86-73-7	Fluorene	18	
85-01-8	Phenanthrene	22	
120-12-7	Anthracene	2	J
206-44-0	Fluoranthene	1	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/20/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/40-44DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: Q813977-002BDLSample wt/vol: 1000(g/mL) MLLab File ID: A\C44084.D

Level: (low/med)

LOWDate Received: 12/04/08

% Moisture:

Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/11/08Injection Volume: 2 (μ L)Dilution Factor: 5.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

91-20-3	Naphthalene	270	D
91-57-6	2-Methylnaphthalene	50	U
208-96-8	Acenaphthylene	53	D
83-32-9	Acenaphthene	23	DJ
86-73-7	Fluorene	19	DJ
85-01-8	Phenanthrene	24	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

2/20/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS048

Matrix: (soil/water)

WATERLab Sample ID: 0813977-003ASample wt/vol: 5(g/mL) MLLab File ID: A\A62542.D

Level: (low/med)

LOWDate Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>660</u> 650	E D J
108-88-3	Toluene	160	J
100-41-4	Ethylbenzene	40	J
1330-20-7	Xylene (total)	<u>940</u> 790	E D J

2/18/09
✓

KEY-URS048 S48

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0813977-003ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62587.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

10.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	660	D
108-88-3	Toluene	150	D
100-41-4	Ethylbenzene	36	D
1330-20-7	Xylene (total)	940	D

2/15/09
2

KEY-URS048 S49

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44045.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/10/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	2000 1400	20	ED
91-57-6	2-Methylnaphthalene	310 330	3	ED
208-96-8	Acenaphthylene	120 100	1	ED
83-32-9	Acenaphthene		40	
86-73-7	Fluorene		25	
85-01-8	Phenanthrene		18	
120-12-7	Anthracene		10	U
206-44-0	Fluoranthene		10	U
129-00-0	Pyrene		10	U
56-55-3	Benzo(a)anthracene		10	U
218-01-9	Chrysene		10	U
205-99-2	Benzo(b)fluoranthene		10	U
207-08-9	Benzo(k)fluoranthene		10	U
50-32-8	Benzo(a)pyrene		10	U
193-39-5	Indeno(1,2,3-cd)pyrene		10	U
53-70-3	Dibenzo(a,h)anthracene		10	U
191-24-2	Benzo(g,h,i)perylene		10	U

(1) Cannot be separated from Diphenylamine

2/20/08
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

106/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-003BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44085.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	2000		D
91-57-6	2-Methylnaphthalene	310		DJ
208-96-8	Acenaphthylene	120		DJ
83-32-9	Acenaphthene	500		U
86-73-7	Fluorene	500		U
85-01-8	Phenanthrene	500		U
120-12-7	Anthracene	500		U
206-44-0	Fluoranthene	500		U
129-00-0	Pyrene	500		U
56-55-3	Benzo(a)anthracene	500		U
218-01-9	Chrysene	500		U
205-99-2	Benzo(b)fluoranthene	500		U
207-08-9	Benzo(k)fluoranthene	500		U
50-32-8	Benzo(a)pyrene	500		U
193-39-5	Indeno(1,2,3-cd)pyrene	500		U
53-70-3	Dibenzo(a,h)anthracene	500		U
191-24-2	Benzo(g,h,i)perylene	500		U

(1) Cannot be separated from Diphenylamine

2/20/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813977-003

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-106/GW/50-54

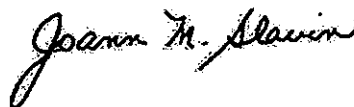
Collected : 12/4/2008 10:45:00 AM
Received : 12/4/2008 4:00:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	50.6		4	mg/L	SM2320B	12/16/2008 3:31 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/05/2008 1:20 PM
Nitrate as N	< 0.10		1	mg/L	E353.2	12/08/2008 3:43 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/05/2008 9:34 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0813977-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62543.D

Level: (low/med)

LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/05/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(µg/L or µg/Kg)	UG/L	
71-43-2	Benzene	480	470	BD J
108-88-3	Toluene		38	J
100-41-4	Ethylbenzene		6.6	J
1330-20-7	Xylene (total)		290	J

2/18/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATERLab Sample ID: 0813977-004ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A62588.DLevel: (low/med) LOWDate Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/10/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
71-43-2	Benzene	480	D
108-88-3	Toluene	37	D
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	320	D

2/15/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0813977-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44046.D

Level: (low/med) LOW

Date Received: 12/04/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/08/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/10/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>530</u> 410	<u>B1</u>
91-57-6	2-Methylnaphthalene	4	J
208-96-8	Acenaphthylene	23	
83-32-9	Acenaphthene	8	J
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

2/20/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

106/GW/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-004BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44154.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (µL)Date Analyzed: 12/17/08Injection Volume: 2 (µL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	530	D
91-57-6	2-Methylnaphthalene	100	U
208-96-8	Acenaphthylene	26	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0813977-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62578.D

Level: (low/med) LOW

Date Received: 12/04/08

% Moisture: not dec.

Date Analyzed: 12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	30	
108-88-3	Toluene	3.7	
100-41-4	Ethylbenzene	7.3	
1330-20-7	Xylene (total)	27	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0813977-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44047.DLevel: (low/med) LOWDate Received: 12/04/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/10/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	45	
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	3	J
83-32-9	Acenaphthene	1	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0813977-005

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-106/GW/70-74

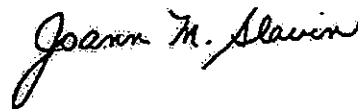
Collected : 12/4/2008 1:35:00 PM
Received : 12/4/2008 4:00:00 PM
Collected By : Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	23.6		1	mg/L	SM2320B	12/16/2008 3:39 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/05/2008 1:23 PM
Nitrate as N	0.13		1	mg/L	E353.2	12/08/2008 3:44 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/05/2008 9:36 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814022-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62583.D

Level: (low/med)

LOW

Date Received: 12/05/08

% Moisture: not dec.

Date Analyzed: 12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	16	
108-88-3	Toluene	2.6	
100-41-4	Ethylbenzene	4.5	
1330-20-7	Xylene (total)	15	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814022-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44019.DLevel: (low/med) LOWDate Received: 12/05/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/08/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/09/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	27	
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS048

Matrix: (soil/water)

WATERLab Sample ID: 0814022-004ASample wt/vol: 5(g/mL) MLLab File ID: A\A62584.D

Level: (low/med)

LOWDate Received: 12/05/08

% Moisture: not dec.

Date Analyzed: 12/10/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	56	
108-88-3	Toluene	8.7	
100-41-4	Ethylbenzene	11	
1330-20-7	Xylene (total)	48	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

106/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0814022-004B

Sample wt/vol: 800 (g/mL) ML

Lab File ID: A\C44020.D

Level: (low/med) LOW

Date Received: 12/05/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/08/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/09/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	80	
91-57-6	2-Methylnaphthalene	6	J
208-96-8	Acenaphthylene	5	J
83-32-9	Acenaphthene	3	J
86-73-7	Fluorene	2	J
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
56-55-3	Benzo(a)anthracene	12	U
218-01-9	Chrysene	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenzo(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814068-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62610.D

Level: (low/med)

LOW

Date Received: 12/08/08

% Moisture: not dec.

Date Analyzed: 12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0814068-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44070.D

Level: (low/med) LOW

Date Received: 12/08/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/10/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/11/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814068-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62611.D

Level: (low/med)

LOW

Date Received:

12/08/08

% Moisture: not dec.

Date Analyzed:

12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	6.6	
108-88-3	Toluene	1.9	
100-41-4	Ethylbenzene	170	
1330-20-7	Xylene (total)	38	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0814068-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44071.D

Level: (low/med) LOW

Date Received: 12/08/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/10/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/11/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	11	
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	7	J
83-32-9	Acenaphthene	12	
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	11	
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814068-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62612.D

Level: (low/med)

LOW

Date Received:

12/08/08

% Moisture: not dec.

Date Analyzed:

12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	17	
108-88-3	Toluene	14	
100-41-4	Ethylbenzene	<u>340</u> 280	<u>B.D</u>
1330-20-7	Xylene (total)	180	

2/20/09
a

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814068-004ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62636.D

Level: (low/med)

LOW

Date Received: 12/08/08

% Moisture: not dec.

Date Analyzed: 12/12/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	15	D
108-88-3	Toluene	13	D
100-41-4	Ethylbenzene	340	D
1330-20-7	Xylene (total)	200	D

2/20/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0814068-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44072.D

Level: (low/med) LOW

Date Received: 12/08/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/10/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/11/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	70	
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	34	
83-32-9	Acenaphthene	65	
86-73-7	Fluorene	37	
85-01-8	Phenanthrene	49	
120-12-7	Anthracene	8	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814068-004

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-107/GW/50-54

Collected : 12/8/2008 1:30:00 PM

Received : 12/8/2008 4:20:00 PM

Collected By : Client

Copies To : Original

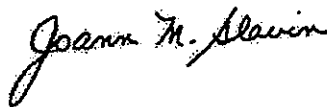
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	73.8		5	mg/L	SM2320B	12/16/2008 3:55 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/09/2008 12:17 PM
Nitrate as N	0.11		1	mg/L	E353.2	12/18/2008 1:56 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/10/2008 8:36 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081208-FD-1

(H153-107/60/50-54)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814068-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62609.D

Level: (low/med)

LOW

Date Received: 12/08/08

% Moisture: not dec.

Date Analyzed: 12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	17	
108-88-3	Toluene	13	
100-41-4	Ethylbenzene	330 320	ED
1330-20-7	Xylene (total)	190	

2/20/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081208-FD-1DL

(HISB-107/GW/SD-54)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814068-001ADL

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62635.D

Level: (low/med)

LOW

Date Received:

12/08/08

% Moisture: not dec.

Date Analyzed:

12/12/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	15	D
108-88-3	Toluene	12	D
100-41-4	Ethylbenzene	330	D
1330-20-7	Xylene (total)	190	D

2/20/09
2

KEY-URS048 S72

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

20081208-FD-1

(HISB-107/GW/50-54)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814068-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44069.DLevel: (low/med) LOWDate Received: 12/08/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/11/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	68	
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	33	
83-32-9	Acenaphthene	60	
86-73-7	Fluorene	35	
85-01-8	Phenanthrene	42	
120-12-7	Anthracene	7	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814068-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : 20081208-FD-1

Collected : 12/8/2008 1:30:00 PM
Received : 12/8/2008 4:20:00 PM
Collected By : Client
Copies To : Original
CC

(H15B-107/GW/SD-54)

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	76.2		4	mg/L	SM2320B	12/16/2008 3:47 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/09/2008 12:16 PM
Nitrate as N	0.11		1	mg/L	E353.2	12/18/2008 1:52 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/10/2008 8:34 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814068-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62615.D

Level: (low/med)

LOW

Date Received: 12/08/08

% Moisture: not dec.

Date Analyzed: 12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	3.7	
108-88-3	Toluene	2.6	
100-41-4	Ethylbenzene	8.3	
1330-20-7	Xylene (total)	14	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water) WATER

Lab Sample ID: 0814068-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44075.D

Level: (low/med) LOW

Date Received: 12/08/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/10/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/11/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/kg) UG/L	Q
91-20-3	Naphthalene	4	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	19	
83-32-9	Acenaphthene	24	
86-73-7	Fluorene	14	
85-01-8	Phenanthrene	7	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814135-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62594.D

Level: (low/med)

LOW

Date Received:

12/09/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

107/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814135-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44076.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/11/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814135-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-107/GW/70-74

Collected : 12/9/2008 9:30:00 AM
Received : 12/9/2008 3:57:00 PM
Collected By : Client
Copies To : Original
CC

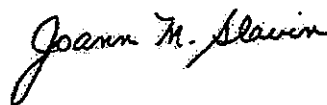
<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	24.3		1	mg/L	SM2320B	12/16/2008 4:11 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/10/2008 2:51 PM
Nitrate as N	0.17		1	mg/L	E353.2	12/18/2008 1:58 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/10/2008 8:40 AM

Qualifiers: E - Value above quantitation range

D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/23/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814135-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62595.D

Level: (low/med)

LOW

Date Received:

12/09/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

107/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814135-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44077.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/11/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

107/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814135-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62596.D

Level: (low/med)

LOW

Date Received:

12/09/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1.6	
108-88-3	Toluene	2.4	
100-41-4	Ethylbenzene	11	
1330-20-7	Xylene (total)	9.3	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

107/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048Matrix: (soil/water) WATERLab Sample ID: 0814135-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44078.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	8	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1B
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-108/
GW/30-34

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814133-001A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62616.D
Level: (low/med) LOW Date Received: 12/09/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814133-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44079.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/11/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H2M -108/
GW/40-44

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814133-002A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62617.D
Level: (low/med) LOW Date Received: 12/09/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814133-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44080.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-108/
GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID: 0814133-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62618.D

Level: (low/med)

LOW

Date Received: 12/09/08

% Moisture: not dec.

Date Analyzed: 12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814133-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44081.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814133-003

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-108/GW/50-54

Collected : 12/9/2008 11:40:00 AM

Received : 12/9/2008 3:57:00 PM

Collected By Client

Copies To : Original

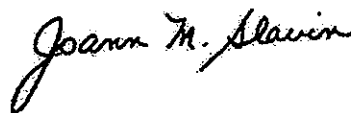
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	11.8		1	mg/L	SM2320B	12/16/2008 4:03 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/10/2008 2:50 PM
Nitrate as N	3.28		10	mg/L	E353.2	12/18/2008 1:57 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/10/2008 8:38 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/7/2009



Laboratory Manager

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H15B-108/
GW/60-64Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATERLab Sample ID: 0814133-004ASample wt/vol: 5(g/mL) MLLab File ID: A\A62619.D

Level: (low/med)

LOWDate Received: 12/09/08

% Moisture: not dec.

Date Analyzed: 12/11/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814133-004BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44082.DLevel: (low/med) LOWDate Received: 12/09/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/10/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/11/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-108/
GW/70-74Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID:

0814190-001A

Sample wt/vol:

5(g/mL) ML

Lab File ID:

A\A62620.D

Level: (low/med)

LOW

Date Received:

12/10/08

% Moisture: not dec.

Date Analyzed:

12/11/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	3.7	
100-41-4	Ethylbenzene	1.4	
1330-20-7	Xylene (total)	7.0	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814190-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44136.DLevel: (low/med) LOWDate Received: 12/10/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/15/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/16/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	1	✓
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814190-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-108/GW/70-74

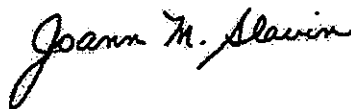
Collected : 12/10/2008 9:50:00 AM
Received : 12/10/2008 4:05:00 PM
Collected By Client
Copies To : Original
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Alkalinity, Total (As CaCO ₃)	24.4		1	mg/L	SM2320B	12/16/2008 4:19 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/11/2008 2:00 PM
Nitrate as N	2.82		5	mg/L	E353.2	12/18/2008 1:59 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/12/2008 7:14 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/7/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H150-108/
GW/80-84

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814190-002A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62621.D
Level: (low/med) LOW Date Received: 12/10/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (pL) Soil Aliquot Volume _____ (pL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	7.5	
100-41-4	Ethylbenzene	2.5	
1330-20-7	Xylene (total)	10	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

108/GW/8C-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814190-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44137.DLevel: (low/med) LOWDate Received: 12/10/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/16/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	1	✓ 5
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H156-108/
GW/90-94

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814190-003A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62622.D
Level: (low/med) LOW Date Received: 12/10/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U R
108-88-3	Toluene	10	J
100-41-4	Ethylbenzene	2.7	J
1330-20-7	Xylene (total)	13	J

2/23/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

108/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814190-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44138.D

Level: (low/med) LOW

Date Received: 12/10/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/15/08

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 12/16/08

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/L	Q
91-20-3	Naphthalene	1	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

108/GW/90-94RE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814190-003BRE

Sample wt/vol: 800 (g/mL) ML

Lab File ID: A\C44190.D

Level: (low/med) LOW

Date Received: 12/10/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/18/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/18/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	1	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/20/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-109/
GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID:

0814190-004A

Sample wt/vol:

5

(g/mL) ML

Lab File ID:

A\A62623.D

Level: (low/med)

LOW

Date Received:

12/10/08

% Moisture: not dec.

Date Analyzed:

12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U <u>2</u>
108-88-3	Toluene	1	U <u>1</u>
100-41-4	Ethylbenzene	1	U <u>1</u>
1330-20-7	Xylene (total)	1	U <u>1</u>

2/23/09
2

KEY-URS050 S51

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

109/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814190-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44139.D

Level: (low/med) LOW

Date Received: 12/10/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/16/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-109/
GW/40-44

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814190-005A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62624.D
Level: (low/med) LOW Date Received: 12/10/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U <u>R</u>
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

2/23/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

109/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814190-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44155.DLevel: (low/med) LOWDate Received: 12/10/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/15/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 12/17/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
91-20-3	Naphthalene	10	<u>U</u>
91-57-6	2-Methylnaphthalene	10	<u>U</u>
208-96-8	Acenaphthylene	10	<u>U</u>
83-32-9	Acenaphthene	10	<u>U</u>
86-73-7	Fluorene	10	<u>U</u>
85-01-8	Phenanthrene	10	<u>U</u>
120-12-7	Anthracene	10	<u>U</u>
206-44-0	Fluoranthene	10	<u>U</u>
129-00-0	Pyrene	10	<u>U</u>
56-55-3	Benzo(a)anthracene	10	<u>U</u>
218-01-9	Chrysene	10	<u>U</u>
205-99-2	Benzo(b)fluoranthene	10	<u>U</u>
207-08-9	Benzo(k)fluoranthene	10	<u>U</u>
50-32-8	Benzo(a)pyrene	10	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	10	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	10	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	10	<u>U</u>

(1) Cannot be separated from Diphenylamine

2/24/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

HISB-109/
GW/50-54

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050

Matrix: (soil/water) WATER Lab Sample ID: 0814190-006A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62625.D

Level: (low/med) LOW Date Received: 12/10/08

% Moisture: not dec. Date Analyzed: 12/11/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	3.9	
100-41-4	Ethylbenzene	1.0	
1330-20-7	Xylene (total)	2.6	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

109/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 19478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814190-006B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44144.D

Level: (low/med) LOW

Date Received: 12/10/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/16/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	10		<u>105</u>
91-57-6	2-Methylnaphthalene	10		U
208-96-8	Acenaphthylene	10		U
83-32-9	Acenaphthene	10		U
86-73-7	Fluorene	10		U
85-01-8	Phenanthrene	10		U
120-12-7	Anthracene	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

2/24/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814190-006

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-109/GW/50-54

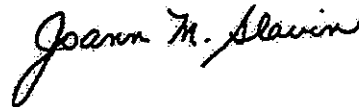
Collected : 12/10/2008 1:30:00 PM
Received : 12/10/2008 4:05:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	28.1		1	mg/L	SM2320B	12/16/2008 4:27 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/11/2008 2:01 PM
Nitrate as N	2.46		5	mg/L	E353.2	12/18/2008 2:00 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/12/2008 7:16 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/7/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

#156-109/
GW/60-64

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814190-007A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62626.D
Level: (low/med) LOW Date Received: 12/10/08
% Moisture: not dec. Date Analyzed: 12/11/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	7.9	
100-41-4	Ethylbenzene	2.2	
1330-20-7	Xylene (total)	9.3	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

109/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814190-007BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44145.DLevel: (low/med) LOWDate Received: 12/10/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/16/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H156-109/
GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID: 0814254-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62651.D

Level: (low/med)

LOW

Date Received: 12/11/08

% Moisture: not dec.

Date Analyzed: 12/12/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	12	
100-41-4	Ethylbenzene	3.0	
1330-20-7	Xylene (total)	13	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

109/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050Matrix: (soil/water) WATERLab Sample ID: 0814254-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44147.DLevel: (low/med) LOWDate Received: 12/11/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/16/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U <i>J</i>
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814254-001

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-109/GW/70-74

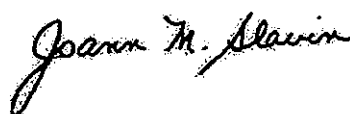
Collected : 12/11/2008 9:15:00 AM
Received : 12/11/2008 3:58:00 PM
Collected By : Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO3)	31.0		1	mg/L	SM2320B	12/16/2008 4:35 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/11/2008 7:09 PM
Nitrate as N	2.21		5	mg/L	E353.2	12/18/2008 2:02 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/12/2008 7:18 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/7/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H156-1091
GW/80-84

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050
Matrix: (soil/water) WATER Lab Sample ID: 0814254-002A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62652.D
Level: (low/med) LOW Date Received: 12/11/08
% Moisture: not dec. Date Analyzed: 12/12/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U X
108-88-3	Toluene	11	X
100-41-4	Ethylbenzene	3.6	
1330-20-7	Xylene (total)	16	

2/23/09
2

KEY-URS050 S63

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

109/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814254-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44148.D

Level: (low/med) LOW

Date Received: 12/11/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/16/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	2	15
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

H153-109/
GW/90-94

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS050

Matrix: (soil/water) WATER Lab Sample ID: 0814254-003A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62653.D

Level: (low/med) LOW Date Received: 12/11/08

% Moisture: not dec. Date Analyzed: 12/12/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (pL) Soil Aliquot Volume _____ (pL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U <u>R</u>
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U <u>✓</u>

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

109/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water) WATER

Lab Sample ID: 0814254-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44149.D

Level: (low/med) LOW

Date Received: 12/11/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/16/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62829.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

114/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814642-002ESample wt/vol: 1000 (g/mL) MLLab File ID: A\C44315.DLevel: (low/med) LOWDate Received: 12/23/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/26/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/31/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/40-44

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS051
Matrix: (soil/water) WATER Lab Sample ID: 0814642-003A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62830.D
Level: (low/med) LOW Date Received: 12/23/08
% Moisture: not dec. Date Analyzed: 12/30/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814642-003B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44316.D

Level: (low/med) LOW

Date Received: 12/23/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/31/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

KEY-URS051 S53

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62831.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814642-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44317.D

Level: (low/med) LOW

Date Received: 12/23/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/31/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

2/24/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814642-004

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-114/GW/50-54

Collected : 12/23/2008 10:45:00 AM
Received : 12/23/2008 4:06:00 PM
Collected By MD99
Copies To : Original
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Alkalinity, Total (As CaCO ₃)	70.0		5	mg/L	SM2320B	01/06/2009 8:31 AM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/23/2008 5:34 PM
Nitrate as N	3.66		5	mg/L	E353.2	01/07/2009 1:15 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/23/2008 5:21 PM

2/25/09

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/13/2009

Joann M. Slavine

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DUP-1 12232008
(H15B-114/GW/SD-S4)

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS051

Matrix: (soil/water) WATER Lab Sample ID: 0814642-001A

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62828.D

Level: (low/med) LOW Date Received: 12/23/08

% Moisture: not dec. Date Analyzed: 12/30/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DUP-1 12 23 2008
(HISB-114/00/SD-54)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814642-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44314.DLevel: (low/med) LOWDate Received: 12/23/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/26/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 12/31/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

2/24/09

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U 5
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Kevin Connare

Lab No. : 0814642-001

Sample Information...

Type : Groundwater

Origin:

Client ID. : DUP-1 12232008

Collected : 12/23/2008
Received : 12/23/2008 4:06:00 PM
Collected By MD99
Copies To : Original
CC

(H15B-114/6W/50-S4)

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Alkalinity, Total (As CaCO3)	75.0	5	✓	mg/L	SM2320B	01/06/2009 8:24 AM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/23/2008 5:33 PM
Nitrate as N	3.11		5	mg/L	E353.2	01/07/2009 1:14 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/23/2008 5:20 PM

2/25/09
a

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/13/2009

Joann M. Slawin

Laboratory Manager

VOLATILE ORGANICS ANALYSIS DATA SHEET

114/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-005ASample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62832.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814642-005B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44318.D

Level: (low/med) LOW

Date Received: 12/23/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/31/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62833.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814642-006B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44319.D

Level: (low/med) LOW

Date Received: 12/23/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 12/31/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U 5
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0814642-006

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-114/GW/70-74

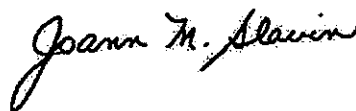
Collected : 12/23/2008 9:05:00 AM
Received : 12/23/2008 4:06:00 PM
Collected By MD99
Copies To : Original
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Alkalinity, Total (As CaCO ₃)	34.1		2	mg/L	SM2320B	01/06/2009 2:04 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	12/23/2008 5:38 PM
Nitrate as N	0.70		1	mg/L	E353.2	01/08/2009 9:39 AM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	12/23/2008 5:22 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/13/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-007A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62836.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

114/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Matrix: (soil/water) WATERLab Sample ID: 0814642-007BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44345.DLevel: (low/med) LOWDate Received: 12/23/08% Moisture: Decanted: (Y/N) NDate Extracted: 12/26/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U <i>J</i>
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID:

0814642-008A

Sample wt/vol:

5

(g/mL) ML

Lab File ID:

A\A62837.D

Level: (low/med)

LOW

Date Received:

12/23/08

% Moisture: not dec.

Date Analyzed:

12/30/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

IC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

114/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water) WATER

Lab Sample ID: 0814642-008B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44346.D

Level: (low/med) LOW

Date Received: 12/23/08

% Moisture: Decanted: (Y/N) N

Date Extracted: 12/26/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/02/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	10	U J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID:

0901466-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A63084.D

Level: (low/med)

LOW

Date Received:

01/15/09

% Moisture: not dec.

Date Analyzed:

01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	10	U R
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

3/26/9
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058Matrix: (soil/water) WATERLab Sample ID: 0901466-001BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44606.DLevel: (low/med) LOWDate Received: 01/15/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/16/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/19/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	1	J
85-01-8	Phenanthrene	5	J
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	3	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901466-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63095.D

Level: (low/med)

LOW

Date Received: 01/15/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	6	J
108-88-3	Toluene	10	U R
100-41-4	Ethylbenzene	1	J
1330-20-7	Xylene (total)	2	J

3/2/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water) WATER

Lab Sample ID: 0901466-002B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44607.D

Level: (low/med) LOW

Date Received: 01/15/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/16/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/19/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	2	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	2	J
85-01-8	Phenanthrene	6	J 5
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63079.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	<u>210</u> 240	<u>EXJ</u>
108-88-3	Toluene	2	
100-41-4	Ethylbenzene	3	
1330-20-7	Xylene (total)	73	

3/2/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/50-54DL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS058

Matrix: (soil/water) WATER Lab Sample ID: 0901445-001ADL

Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63118.D

Level: (low/med) LOW Date Received: 01/14/09

% Moisture: not dec. Date Analyzed: 01/21/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 2.00

Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	210	D
108-88-3	Toluene	2	D
100-41-4	Ethylbenzene	2	D
1330-20-7	Xylene (total)	72	D

3/26/9
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

11S/GW/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water) WATER

Lab Sample ID: 0901445-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44596.D

Level: (low/med) LOW

Date Received: 01/14/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	<u>150</u> 150	ND
91-57-6	2-Methylnaphthalene	4	J
208-96-8	Acenaphthylene	57	
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	8	J
85-01-8	Phenanthrene	27	J
120-12-7	Anthracene	4	J
206-44-0	Fluoranthene	2	J
129-00-0	Pyrene	3	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/50-54DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water) WATER

Lab Sample ID: 0901445-001BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44627.D

Level: (low/med) LOW

Date Received: 01/14/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/20/09

Injection Volume: 2 (μL)

Dilution Factor: 5.00

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	150	D
91-57-6	2-Methylnaphthalene	50	U
208-96-8	Acenaphthylene	62	D
83-32-9	Acenaphthene	10	DJ
86-73-7	Fluorene	8	DJ
85-01-8	Phenanthrene	27	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

3/3/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901445-001

Sample Information...
Type : Groundwater

Origin:

Client ID. : HISB-115/GW/50-54

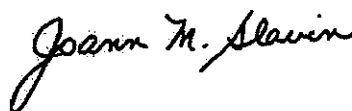
Collected : 1/14/2009 2:15:00 PM
Received : 1/14/2009 4:05:00 PM
Collected By JH99
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	138		5	mg/L	SM2320B	01/16/2009 11:51 AM
Nitrite as N	< 0.10		1	mg/L	E353.2	01/15/2009 3:59 PM
Nitrate as N	0.46		1	mg/L	E353.2	01/15/2009 12:03 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	01/16/2009 8:15 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/20/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63080.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	38	J
108-88-3	Toluene	1	J
100-41-4	Ethylbenzene	63	J
1330-20-7	Xylene (total)	23	J

3/2/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

115/GW/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058Matrix: (soil/water) WATERLab Sample ID: 0901445-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44597.DLevel: (low/med) LOWDate Received: 01/14/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/16/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	16	
91-57-6	2-Methylnaphthalene	4	J
208-96-8	Acenaphthylene	49	
83-32-9	Acenaphthene	8	J
86-73-7	Fluorene	14	
85-01-8	Phenanthrene	30	J
120-12-7	Anthracene	5	J
206-44-0	Fluoranthene	3	J
129-00-0	Pyrene	4	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63081.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(µg/L or µg/Kg)	<u>UG/L</u>	
71-43-2	Benzene	510	470	BD J
108-88-3	Toluene		11	J
100-41-4	Ethylbenzene	510	460	BD J
1330-20-7	Xylene (total)		380	J

3/2/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/70-74DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATERLab Sample ID: 0901445-003ADLSample wt/vol: 5(g/mL) MLLab File ID: A\A63119.D

Level: (low/med)

LOWDate Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/21/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/L

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	510	D
108-88-3	Toluene	10	D
100-41-4	Ethylbenzene	510	D
1330-20-7	Xylene (total)	410	D

3/02/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

115/GW/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058Matrix: (soil/water) WATERLab Sample ID: 0901445-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44598.DLevel: (low/med) LOWDate Received: 01/14/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/16/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/L	Q
91-20-3	Naphthalene	920 80		AD
91-57-6	2-Methylnaphthalene	46		
208-96-8	Acenaphthylene	130 33		ADJ
83-32-9	Acenaphthene	10		
86-73-7	Fluorene	25		
85-01-8	Phenanthrene	20		J
120-12-7	Anthracene	2		J
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
56-55-3	Benzo(a)anthracene	10		U
218-01-9	Chrysene	10		U
205-99-2	Benzo(b)fluoranthene	10		U
207-08-9	Benzo(k)fluoranthene	10		U
50-32-8	Benzo(a)pyrene	10		U
193-39-5	Indeno(1,2,3-cd)pyrene	10		U
53-70-3	Dibenzo(a,h)anthracene	10		U
191-24-2	Benzo(g,h,i)perylene	10		U

(1) Cannot be separated from Diphenylamine

3/3/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

115/GW/70-74DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058Matrix: (soil/water) WATERLab Sample ID: 0901445-003BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44628.DLevel: (low/med) LOWDate Received: 01/14/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/20/09Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	920	D
91-57-6	2-Methylnaphthalene	53	DJ
208-96-8	Acenaphthylene	130	DJ
83-32-9	Acenaphthene	200	U
85-73-7	Fluorene	31	DJ
85-01-8	Phenanthrene	26	DJ
120-12-7	Anthracene	200	U
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
56-55-3	Benzo(a)anthracene	200	U
218-01-9	Chrysene	200	U
205-99-2	Benzo(b)fluoranthene	200	U
207-08-9	Benzo(k)fluoranthene	200	U
50-32-8	Benzo(a)pyrene	200	U
193-39-5	Indeno(1,2,3-cd)pyrene	200	U
53-70-3	Dibenzo(a,h)anthracene	200	U
191-24-2	Benzo(g,h,i)perylene	200	U

(1) Cannot be separated from Diphenylamine

3/3/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Kevin Connare

Lab No. : 0901445-003

Sample Information...

Type : Groundwater

Origin:

Client ID. : HISB-115/GW/70-74

Collected : 1/14/2009 1:15:00 PM

Received : 1/14/2009 4:05:00 PM

Collected By JH99

Copies To : Original

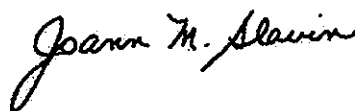
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Alkalinity, Total (As CaCO ₃)	112		5	mg/L	SM2320B	01/16/2009 12:15 PM
Nitrite as N	< 0.10		1	mg/L	E353.2	01/15/2009 4:00 PM
Nitrate as N	0.28		1	mg/L	E353.2	01/15/2009 12:05 PM
Ortho Phosphate	< 0.05		1	mg/L	SM4500-P E	01/16/2009 8:16 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 1/20/2009



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63082.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	20	J
108-88-3	Toluene	1	J
100-41-4	Ethylbenzene	89	J
1330-20-7	Xylene (total)	13	J

3/26/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water) WATER

Lab Sample ID: 0901445-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C44599.D

Level: (low/med) LOW

Date Received: 01/14/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	2	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	62	
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	15	
85-01-8	Phenanthrene	9	15
120-12-7	Anthracene	1	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63083.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	23	J
108-88-3	Toluene	3	J
100-41-4	Ethylbenzene	14	J
1330-20-7	Xylene (total)	16	J

3/26/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

115/GW/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058Matrix: (soil/water) WATERLab Sample ID: 0901445-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C44603.DLevel: (low/med) LOWDate Received: 01/14/09% Moisture: Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/19/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	14	
91-57-6	2-Methylnaphthalene	4	J
208-96-8	Acenaphthylene	22	
83-32-9	Acenaphthene	6	J
86-73-7	Fluorene	5	J
85-01-8	Phenanthrene	10	J
120-12-7	Anthracene	3	J
206-44-0	Fluoranthene	1	J
129-00-0	Pyrene	2	J
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

3/3/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-001A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65375.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

116/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water) WATER

Lab Sample ID: 0907176-001B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C47621.D

Level: (low/med) LOW

Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 06/26/09

Concentrated Extract Volume: 1000 (µL)

Date Analyzed: 07/01/09

Injection Volume: 2 (µL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	1	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65376.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/40-44

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-002BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47622.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/01/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	2	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	1	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65377.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

116/50-54

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-003BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47623.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/01/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	2	J
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	4	J
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a,h) anthracene	10	U
191-24-2	Benzo (g,h,i) perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65378.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(pg/L or pg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	20	
1330-20-7	Xylene (total)	77	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090623-FD-1

(116/60-64)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-009A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65396.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/26/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (total)	82	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

116/60-64

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water) WATER

Lab Sample ID: 0907176-004B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C47624.D

Level: (low/med) LOW

Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 06/26/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/01/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	79	
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	110 100	80
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	10	
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

7/2/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

116/60-64DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water) WATER

Lab Sample ID: 0907176-004BDL

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C47741.D

Level: (low/med) LOW

Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 06/26/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/07/09

Injection Volume: 2 (μL)

Dilution Factor: 2.00

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	89	D
91-57-6	2-Methylnaphthalene	20	U
208-96-8	Acenaphthylene	110	D
83-32-9	Acenaphthene	10	DJ
86-73-7	Fluorene	10	DJ
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenzo(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) Cannot be separated from Diphenylamine

7/20/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

20090623-FD-1

(116/60-64)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-009BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47631.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/02/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
91-20-3	Naphthalene	91 84	R.D
91-57-6	2-Methylnaphthalene	2	J
208-96-8	Acenaphthylene	110 100	R.D
83-32-9	Acenaphthene	10	
86-73-7	Fluorene	10	
85-01-8	Phenanthrene	1	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

7/20/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090623-FD-1DL

(116/60-64)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-009BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47745.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/07/09Injection Volume: 2 (μL)Dilution Factor: 2.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	91	D
91-57-6	2-Methylnaphthalene	20	U
208-96-8	Acenaphthylene	110	D
83-32-9	Acenaphthene	10	DJ
86-73-7	Fluorene	10	DJ
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene	20	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenzo(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65379.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(pg/L or pg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	2	
1330-20-7	Xylene (total)	4	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/70-74

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-005BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47625.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/01/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	12	
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	25	
83-32-9	Acenaphthene	4	J
86-73-7	Fluorene	2	J
85-01-8	Phenanthrene	5	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATER

Lab Sample ID: 0907176-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A65380.D

Level: (low/med)

LOW

Date Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	7	
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	28	
1330-20-7	Xylene (total)	56	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/80-84

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-006BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47626.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>180</u> 150	ND
91-57-6	2-Methylnaphthalene	26	
208-96-8	Acenaphthylene	120	ND
83-32-9	Acenaphthene	15	
86-73-7	Fluorene	19	
85-01-8	Phenanthrene	9	J
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

7/20/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/80-84DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-006BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47742.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/07/09Injection Volume: 2 (μL)Dilution Factor: 5.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L Q

91-20-3	Naphthalene	180	D
91-57-6	2-Methylnaphthalene	26	DJ
208-96-8	Acenaphthylene	120	D
83-32-9	Acenaphthene	14	DJ
86-73-7	Fluorene	19	DJ
85-01-8	Phenanthrene	9	DJ
120-12-7	Anthracene	50	U
206-44-0	Fluoranthene	50	U
129-00-0	Pyrene	50	U
56-55-3	Benzo(a)anthracene	50	U
218-01-9	Chrysene	50	U
205-99-2	Benzo(b)fluoranthene	50	U
207-08-9	Benzo(k)fluoranthene	50	U
50-32-8	Benzo(a)pyrene	50	U
193-39-5	Indeno(1,2,3-cd)pyrene	50	U
53-70-3	Dibenzo(a,h)anthracene	50	U
191-24-2	Benzo(g,h,i)perylene	50	U

(1) Cannot be separated from Diphenylamine

7/20/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water)

WATERLab Sample ID: 0907176-007ASample wt/vol: 5(g/mL) MLLab File ID: A\A65381.D

Level: (low/med)

LOWDate Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	10	
108-88-3	Toluene	6	
100-41-4	Ethylbenzene	2	
1330-20-7	Xylene (total)	82	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

116/90-94

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063

Matrix: (soil/water) WATER

Lab Sample ID: 0907176-007B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A\C47627.D

Level: (low/med) LOW

Date Received: 06/24/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 06/26/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/02/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>540</u>	<u>ND</u>
91-57-6	2-Methylnaphthalene	5	J
208-96-8	Acenaphthylene	31	
83-32-9	Acenaphthene	7	J
86-73-7	Fluorene	4	J
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) Cannot be separated from Diphenylamine

7/20/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/90-94DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-007BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47743.DLevel: (low/med) LOWDate Received: 06/24/09

% Moisture:

Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/07/09Injection Volume: 2 (μ L)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: _____Extraction: (Type) SEPP

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg)	UG/L	Q
91-20-3	Naphthalene	540		D
91-57-6	2-Methylnaphthalene	100		U
208-96-8	Acenaphthylene	29		DJ
83-32-9	Acenaphthene	100		U
86-73-7	Fluorene	100		U
85-01-8	Phenanthrene	100		U
120-12-7	Anthracene	100		U
206-44-0	Fluoranthene	100		U
129-00-0	Pyrene	100		U
56-55-3	Benzo (a) anthracene	100		U
218-01-9	Chrysene	100		U
205-99-2	Benzo (b) fluoranthene	100		U
207-08-9	Benzo (k) fluoranthene	100		U
50-32-8	Benzo (a) pyrene	100		U
193-39-5	Indeno (1,2,3-cd) pyrene	100		U
53-70-3	Dibenzo (a, h) anthracene	100		U
191-24-2	Benzo (g, h, i) perylene	100		U

(1) Cannot be separated from Diphenylamine

H2063

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-116/100-104

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS063

Matrix: (soil/water)

WATERLab Sample ID: 0907176-008ASample wt/vol: 5(g/mL) MLLab File ID: A\A65384.D

Level: (low/med)

LOWDate Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	29	
108-88-3	Toluene	47	
100-41-4	Ethylbenzene	5	
1330-20-7	Xylene (total)	210	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/100-104

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-008BSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47630.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/02/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
91-20-3	Naphthalene	<u>780 550</u>	<u>20</u>
91-57-6	2-Methylnaphthalene	13	
208-96-8	Acenaphthylene	41	
83-32-9	Acenaphthene	2	J
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo (a) anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo (b) fluoranthene	10	U
207-08-9	Benzo (k) fluoranthene	10	U
50-32-8	Benzo (a) pyrene	10	U
193-39-5	Indeno (1,2,3-cd) pyrene	10	U
53-70-3	Dibenzo (a, h) anthracene	10	U
191-24-2	Benzo (g, h, i) perylene	10	U

(1) Cannot be separated from Diphenylamine

7/20/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

116/100-104DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS063Matrix: (soil/water) WATERLab Sample ID: 0907176-008BDLSample wt/vol: 1000 (g/mL) MLLab File ID: A\C47744.DLevel: (low/med) LOWDate Received: 06/24/09% Moisture: Decanted: (Y/N) NDate Extracted: 06/26/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/07/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) SEPF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
91-20-3	Naphthalene	780	D
91-57-6	2-Methylnaphthalene	100	U
208-96-8	Acenaphthylene	39	DJ
83-32-9	Acenaphthene	100	U
86-73-7	Fluorene	100	U
85-01-8	Phenanthrene	100	U
120-12-7	Anthracene	100	U
206-44-0	Fluoranthene	100	U
129-00-0	Pyrene	100	U
56-55-3	Benzo(a)anthracene	100	U
218-01-9	Chrysene	100	U
205-99-2	Benzo(b)fluoranthene	100	U
207-08-9	Benzo(k)fluoranthene	100	U
50-32-8	Benzo(a)pyrene	100	U
193-39-5	Indeno(1,2,3-cd)pyrene	100	U
53-70-3	Dibenzo(a,h)anthracene	100	U
191-24-2	Benzo(g,h,i)perylene	100	U

(1) Cannot be separated from Diphenylamine

7/26/09

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB 092408

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030

Matrix: (soil/water)

WATERLab Sample ID: 0811400-002ASample wt/vol: 5(g/mL) MLLab File ID: A\A61235.D

Level: (low/med)

LOWDate Received: 09/24/08

% Moisture: not dec.

Date Analyzed: 09/29/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB 092508

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS030

Matrix: (soil/water)

WATER

Lab Sample ID: 0811462-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A61238.D

Level: (low/med)

LOW

Date Received: 09/25/08

% Moisture: not dec.

Date Analyzed: 09/29/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB 111408

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS042

Matrix: (soil/water)

WATER

Lab Sample ID: 0813289-002A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62282.D

Level: (low/med)

LOW

Date Received: 11/14/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081119-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS044

Matrix: (soil/water) WATER

Lab Sample ID: 0813480-005A

Sample wt/vol: 5 (g/mL) ML

Lab File ID: A\A62283.D

Level: (low/med) LOW

Date Received: 11/19/08

% Moisture: not dec.

Date Analyzed: 11/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

20081119-TB-2

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813520-008ASample wt/vol: 5(g/mL) MLLab File ID: A\A62385.D

Level: (low/med)

LOWDate Received: 11/20/08

% Moisture: not dec.

Date Analyzed: 11/25/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/L	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

20081121-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS044

Matrix: (soil/water)

WATERLab Sample ID: 0813569-004ASample wt/vol: 5(g/mL) MLLab File ID: A\A62386.D

Level: (low/med)

LOWDate Received: 11/21/08

% Moisture: not dec.

Date Analyzed: 11/25/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081201-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID: 0813812-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62469.D

Level: (low/med)

LOW

Date Received: 12/01/08

% Moisture: not dec.

Date Analyzed: 12/02/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081201-TB-2

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Matrix: (soil/water) WATER Lab Sample ID: 0813856-008A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A62516.D
Level: (low/med) LOW Date Received: 12/02/08
% Moisture: not dec. Date Analyzed: 12/04/08
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:			
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081204-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

Matrix: (soil/water)

WATER

Lab Sample ID:

0813976-006ASample wt/vol: 5(g/mL) ML

Lab File ID:

A\A62534.D

Level: (low/med)

LOW

Date Received:

12/04/08

% Moisture: not dec.

Date Analyzed:

12/05/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/L

Q

71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081205-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID: 0814022-005A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62580.D

Level: (low/med)

LOW

Date Received: 12/05/08

% Moisture: not dec.

Date Analyzed: 12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081208-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814068-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62607.D

Level: (low/med)

LOW

Date Received:

12/08/08

% Moisture: not dec.

Date Analyzed:

12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081209-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS048

Matrix: (soil/water)

WATER

Lab Sample ID:

0814135-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID:

A\A62593.D

Level: (low/med)

LOW

Date Received:

12/09/08

% Moisture: not dec.

Date Analyzed:

12/10/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081210-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID: 0814190-008A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62608.D

Level: (low/med)

LOW

Date Received: 12/10/08

% Moisture: not dec.

Date Analyzed: 12/11/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081211-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS050

Matrix: (soil/water)

WATER

Lab Sample ID: 0814254-004A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62650.D

Level: (low/med)

LOW

Date Received: 12/11/08

% Moisture: not dec.

Date Analyzed: 12/12/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

20081217-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS051

Matrix: (soil/water)

WATERLab Sample ID: 0814495-009ASample wt/vol: 5(g/mL) MLLab File ID: A\A62773.D

Level: (low/med)

LOWDate Received: 12/18/08

% Moisture: not dec.

Date Analyzed: 12/22/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20081223-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS051

Matrix: (soil/water)

WATER

Lab Sample ID: 0814642-009A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A62844.D

Level: (low/med)

LOW

Date Received: 12/23/08

% Moisture: not dec.

Date Analyzed: 12/31/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U <u>J</u>
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

2/24/08
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090106-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water)

WATER

Lab Sample ID:

0901190-004A

Sample wt/vol:

5

(g/mL) ML

Lab File ID:

A\A62932.D

Level: (low/med)

LOW

Date Received:

01/07/09

% Moisture: not dec.

Date Analyzed:

01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	10	U R
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U ↓

2/26/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090108-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS055

Matrix: (soil/water) WATER

Lab Sample ID: 0901220-004A

Sample wt/vol: 5 (g/mL) ML

Lab File ID: A\A62936.D

Level: (low/med) LOW

Date Received: 01/08/09

% Moisture: not dec.

Date Analyzed: 01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	<u>10</u>	<u>U</u>
108-88-3	Toluene	<u>10</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>10</u>	<u>U</u>
1330-20-7	Xylene (total)	<u>10</u>	<u>U</u>

2/26/09
a

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK 1/13

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS057
Matrix: (soil/water) WATER Lab Sample ID: 0901376-007A
Sample wt/vol: 5 (g/mL) ML Lab File ID: A\A63042.D
Level: (low/med) LOW Date Received: 01/13/09
% Moisture: not dec. Date Analyzed: 01/17/09
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/L</u>	<u>Q</u>
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090114-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901445-006A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63069.D

Level: (low/med)

LOW

Date Received: 01/14/09

% Moisture: not dec.

Date Analyzed: 01/19/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	10	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

3/31/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090115-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS058

Matrix: (soil/water)

WATER

Lab Sample ID: 0901466-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: A\A63094.D

Level: (low/med)

LOW

Date Received: 01/15/09

% Moisture: not dec.

Date Analyzed: 01/20/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	10	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

3/3/09 ✓

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TB 020409

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS061

Matrix: (soil/water)

WATER

Lab Sample ID: 0902136-003A

Sample wt/vol: 5

(g/mL) ML

Lab File ID: 09\G0182.D

Level: (low/med)

LOW

Date Received: 02/04/09

% Moisture: not dec.

Date Analyzed: 02/10/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	10	U
108-88-3	Toluene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U

3/4/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

20090623-TB-1

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS063

Matrix: (soil/water)

WATERLab Sample ID: 0907176-010ASample wt/vol: 5(g/mL) MLLab File ID: A\A65374.D

Level: (low/med)

LOWDate Received: 06/24/09

% Moisture: not dec.

Date Analyzed: 06/25/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/L</u>	Q
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U

SUBSURFACE AND SURFACE SOILS

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSS-01

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water) SOIL

Lab Sample ID: 0907839-001A

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N32593.D

Level: (low/med) LOW

Date Received: 07/13/09

% Moisture: 20.5 Decanted: (Y/N) N

Date Extracted: 07/14/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 07/23/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEH

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	420	U
91-57-6	2-Methylnaphthalene	420	U
208-96-8	Acenaphthylene	420	U
83-32-9	Acenaphthene	420	U
86-73-7	Fluorene	420	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
206-44-0	Fluoranthene	90	J
129-00-0	Pyrene	85	J
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

BSS-01

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-001Level (low/med): LOWDate Received: 7/13/2009% Solids: 79.5Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	54.5		<u>1</u>	P
7439-97-6	Mercury	0.21		<u>15</u>	CV

Color Before: BROWN

Clarity Before: _____

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts: _____

8/21/09

Comments:

Date Reported 8/3/2009

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BSS-02

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907839-002ASample wt/vol: 15 (g/mL) GLab File ID: 9\N32594.DLevel: (low/med) LOWDate Received: 07/13/09% Moisture: 18.8 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	410	U
91-57-6	2-Methylnaphthalene	410	U
208-96-8	Acenaphthylene	410	U
83-32-9	Acenaphthene	410	U
86-73-7	Fluorene	410	U
85-01-8	Phenanthrene	120	J
120-12-7	Anthracene	410	U
206-44-0	Fluoranthene	420	
129-00-0	Pyrene	400	J
56-55-3	Benzo (a) anthracene	290	J
218-01-9	Chrysene	360	J
205-99-2	Benzo (b) fluoranthene	450	
207-08-9	Benzo (k) fluoranthene	230	J
50-32-8	Benzo (a) pyrene	350	J
193-39-5	Indeno (1,2,3-cd) pyrene	230	J
53-70-3	Dibenzo (a,h) anthracene	410	U
191-24-2	Benzo (g,h,i) perylene	210	J

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

BSS-02

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-002Level (low/med): LOWDate Received: 7/13/2009% Solids: 81.2Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	8.5		/	P
7439-97-6	Mercury	0.52		/	CV

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts: _____

8/21/09
2

Comments:

Date Reported 8/3/2009

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSS-03

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water) SOIL

Lab Sample ID: 0907839-003A

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N32649.D

Level: (low/med) LOW

Date Received: 07/13/09

% Moisture: 10.4 Decanted: (Y/N) N

Date Extracted: 07/14/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 07/24/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	200	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	600	
129-00-0	Pyrene	530	
56-55-3	Benzo (a) anthracene	290	J
218-01-9	Chrysene	380	
205-99-2	Benzo (b) fluoranthene	500	
207-08-9	Benzo (k) fluoranthene	290	J
50-32-8	Benzo (a) pyrene	360	J
193-39-5	Indeno (1,2,3-cd) pyrene	140	J
53-70-3	Dibenzo (a,h) anthracene	370	U
191-24-2	Benzo (g,h,i) perylene	120	J

(1) Cannot be separated from Diphenylamine

8/12/09

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

BSS-03

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-003Level (low/med): LOWDate Received: 7/13/2009% Solids: 89.6Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	3.2		✓	P
7439-97-6	Mercury	0.092		✓	CV

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts:

8/2/09
2

Comments:

Date Reported 8/3/2009

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BSS-04

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water) SOIL

Lab Sample ID: 0907839-004A

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N32596.D

Level: (low/med) LOW

Date Received: 07/13/09

% Moisture: 13.3 Decanted: (Y/N) N

Date Extracted: 07/14/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 07/23/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	380	U
91-57-6	2-Methylnaphthalene	380	U
208-96-8	Acenaphthylene	380	U
83-32-9	Acenaphthene	380	U
86-73-7	Fluorene	380	U
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	380	U
206-44-0	Fluoranthene	300	J
129-00-0	Pyrene	280	J
56-55-3	Benzo(a)anthracene	150	J
218-01-9	Chrysene	190	J
205-99-2	Benzo(b)fluoranthene	230	J
207-08-9	Benzo(k)fluoranthene	120	J
50-32-8	Benzo(a)pyrene	170	J
193-39-5	Indeno(1,2,3-cd)pyrene	96	J
53-70-3	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	100	J

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

BSS-04

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-004Level (low/med): LOWDate Received: 7/13/2009% Solids: 86.7Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	6.8		/	P
7439-97-6	Mercury	0.12		/	CV

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

CLEAR

Artifacts:

8/16/09

Comments:

Date Reported 8/3/2009

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

BSS-05

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907839-005ASample wt/vol: 15 (g/mL) GLab File ID: 9\N32595.DLevel: (low/med) LOWDate Received: 07/13/09% Moisture: 12.7 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	380		U
91-57-6	2-Methylnaphthalene	380		U
208-96-8	Acenaphthylene	380		U
83-32-9	Acenaphthene	380		U
86-73-7	Fluorene	380		U
85-01-8	Phenanthrene	230		J
120-12-7	Anthracene	380		U
206-44-0	Fluoranthene	520		
129-00-0	Pyrene	440		
56-55-3	Benzo(a)anthracene	230		J
218-01-9	Chrysene	310		J
205-99-2	Benzo(b)fluoranthene	380		
207-08-9	Benzo(k)fluoranthene	150		J
50-32-8	Benzo(a)pyrene	250		J
193-39-5	Indeno(1,2,3-cd)pyrene	140		J
53-70-3	Dibenzo(a,h)anthracene	380		U
191-24-2	Benzo(g,h,i)perylene	130		J

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

BSS-05

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-005Level (low/med): LOWDate Received: 7/13/2009% Solids: 87.3Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	10.8		/	P
7439-97-6	Mercury	0.15		/J	CV

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts: _____

8/21/09

Comments:

Date Reported 8/3/2009

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-203/35'-39'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water)

SOIL

Lab Sample ID: 0812649-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A61799.D

Level: (low/med)

LOW

Date Received: 10/28/08

% Moisture: not dec.

13.4

Date Analyzed: 11/04/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg)	UG/KG	Q
74-87-3	Chloromethane	12	6	U
75-01-4	Vinyl chloride	1	6	U
74-83-9	Bromomethane	1	6	UJ
75-00-3	Chloroethane	1	6	U
75-35-4	1,1-Dichloroethene	1	6	U
540-59-0	1,2-Dichloroethene (total)	1	6	U
67-64-1	Acetone	7	6	J
75-15-0	Carbon disulfide	12	6	U
75-09-2	Methylene chloride	12	6	UJ
1634-04-4	Methyl tert-butyl ether	1	6	U
75-34-3	1,1-Dichloroethane	1	6	U
78-93-3	2-Butanone	1	6	UJ
67-66-3	Chloroform	1	6	U
71-55-6	1,1,1-Trichloroethane	1	6	U
56-23-5	Carbon tetrachloride	1	6	U
71-43-2	Benzene	1	6	U
107-06-2	1,2-Dichloroethane	1	6	U
79-01-6	Trichloroethene	1	6	U
78-87-5	1,2-Dichloropropane	1	6	U
75-27-4	Bromodichloromethane	1	6	U
10061-01-5	cis-1,3-Dichloropropene	1	6	U
108-10-1	4-Methyl-2-pentanone	1	6	U
108-88-3	Toluene	4	6	J
10061-02-6	trans-1,3-Dichloropropene	12	6	U
79-00-5	1,1,2-Trichloroethane	1	6	U
127-18-4	Tetrachloroethene	1	6	U
591-78-6	2-Hexanone	1	6	UJ
124-48-1	Dibromochloromethane	1	6	U
108-90-7	Chlorobenzene	1	6	U
100-41-4	Ethylbenzene	1	6	U
1330-20-7	Xylene (total)	6	6	J
100-42-5	Styrene	4	6	J
75-25-2	Bromoform	12	6	U
79-34-5	1,1,2,2-Tetrachloroethane	12	6	U

11/27/09
ML

KEY-URS037 S25

1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DGP-203/36'-39'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water)

SOIL

Lab Sample ID: 0812649-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A61799.D

Level: (low/med) LOW

Date Received: 10/28/08

% Moisture: not dec. 13.4

Date Analyzed: 11/04/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume:

(µl)

Soil Aliquot Volume: 0 (µL)

CONCENTRATION UNITS:

Number TICs found:

6

(µg/L or µg/Kg)

UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	c3-subst_benzene (15.67)	15.67	9	J
2.	unknown	16.25	12	J
3.	c3-subst_benzene (16.88)	16.88	37	J
4.	c4-subst_benzene (18.62)	18.62	17	J
5.	c4-subst_benzene (18.82)	18.82	21	J
6. 000090-12-0	Naphthalene, 1-methyl-	22.36	24	JN

IC
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

203/35'-39'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water) SOIL

Lab Sample ID: 0812649-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43434.D

Level: (low/med) LOW

Date Received: 10/28/08

% Moisture: 13.4 Decanted: (Y/N) N

Date Extracted: 10/31/08

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 11/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	Bis(2-chloroethyl)ether	380	U J
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U J
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U J
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U J
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U J
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U J
111-91-1	bis(2-Chloroethoxy)methane	380	U J
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	390	
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	180	J
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	960	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	960	U J
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	960	U J
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	960	U J
100-02-7	4-Nitrophenol	960	U J
132-64-9	Dibenzofuran	380	U

1/27/09

KEY-URS037 S27

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

203/35'-39'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037Matrix: (soil/water) SOILLab Sample ID: 0812649-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C43434.DLevel: (low/med) LOWDate Received: 10/28/08% Moisture: 13.4 Decanted: (Y/N) NDate Extracted: 10/31/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 11/04/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	960	U	
534-52-1	4,6-Dinitro-2-methylphenol	960	U	
86-30-6	N-Nitrosodiphenylamine	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	960	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-butyl phthalate	380	U	
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butyl benzyl phthalate	380	U	
91-94-1	3,3'-Dichlorobenzidine	380	U	
56-55-3	Benzo(a)anthracene	380	U	
218-01-9	Chrysene	380	U	
117-81-7	bis(2-Ethylhexyl)phthalate	380 380	U	1/27/09
117-84-0	Di-n-octyl phthalate	380	U	
205-99-2	Benzo(b)fluoranthene	380	U	
207-08-9	Benzo(k)fluoranthene	380	U	
50-32-8	Benzo(a)pyrene	380	U	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	
53-70-3	Dibenzo(a,h)anthracene	380	U	
191-24-2	Benzo(g,h,i)perylene	380	U	

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

203/35'-39'

Lab Name: H2M LABS. INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037
 Matrix: (soil/water) SOIL Lab Sample ID: 0812649-001B
 Sample wt/vol: 15 (g/mL) G Lab File ID: AIC43434.D
 Level: (low/med) LOW Date Received: 10/28/08
 % Moisture: 13.4 Decanted: (Y/N) N Date Extracted: 10/31/08
 Concentrated Extract Volume: 500 (μl) Date Analyzed: 11/04/08
 Injection Volume: 2 (μl) Dilution Factor: 1.00
 GPC Cleanup: (Y/N) Y pH: 7.0 Extraction: (Type) PFEX

CONCENTRATION UNITS:

Number TICs found: 10 (μg/L or μg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1. 000123-42-2	2-Pentanone, 4-hydroxy-4-methyl	3.89	1300	JNA
2. 	substituted alcohol (3.95)	3.95	320	JB
3. 	substituted alcohol (4)	4.00	280	JB
4. 	substituted alcohol (4.03)	4.03	260	JB
5. 	substituted alcohol (4.2)	4.20	330	JB
6. 	substituted alcohol (5.31)	5.31	200	J
7. 000098-86-2	Acetophenone	5.73	160	JN
8. 	substituted ketone	14.36	170	J
9. 000301-02-0	9-Octadecenamide, (Z)-	15.22	2100	JN
10. 	(DEL) Alkane: Branched (15.29)	15.29	150	J
11. 	(DEL) Alkane: Branched (15.93)	15.93	330	J
12. 	unknown amide	16.31	340	J

1/27/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : **0812649-001**

Sample Information...

Type : Soil

Origin:

Client ID. : DGP-203/35'-39'

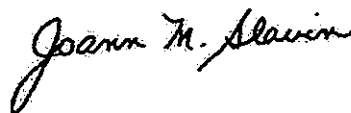
Collected : 10/28/2008 12:30:00 PM
Received : 10/28/2008 3:58:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	13.4		1	wt%	D2216	11/02/2008 12:45 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/25/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-205/27-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOIL

Lab Sample ID: 0901511-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: V\F39865.D

Level: (low/med)

LOW

Date Received: 01/19/09

% Moisture: not dec.

19.2

Date Analyzed: 01/20/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	15000	E
108-88-3	Toluene	15000	E
100-41-4	Ethylbenzene	5600	E
1330-20-7	Xylene (total)	37000	E

2/27/09
2

KEY-URS056 S41

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-205/27-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-001ASample wt/vol: 4(g/mL) GLab File ID: A\A63212.D

Level: (low/med)

MEDDate Received: 01/19/09

% Moisture: not dec.

19.2Date Analyzed: 01/28/09GC Column: ZE-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume:

10000 (μL)Soil Aliquot Volume 100 (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	42000	D
108-88-3	Toluene	120000	D
100-41-4	Ethylbenzene	34000	D
1330-20-7	Xylene (total)	310000	D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-205/27-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9W28871.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 19.2 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	940000		E
91-57-6	2-Methylnaphthalene	1000000		E
208-96-8	Acenaphthylene	140000		E
83-32-9	Acenaphthene	31000		E
86-73-7	Fluorene	170000		E
85-01-8	Phenanthrene	880000		E
120-12-7	Anthracene	140000		E
206-44-0	Fluoranthene	200000		E
129-00-0	Pyrene	330000		E
56-55-3	Benzo(a)anthracene	130000		E
218-01-9	Chrysene	56000		E
205-99-2	Benzo(b)fluoranthene	50000		E
207-08-9	Benzo(k)fluoranthene	23000		E
50-32-8	Benzo(a)pyrene	64000		E
193-39-5	Indeno(1,2,3-cd)pyrene	14000		E
53-70-3	Dibenzo(a,h)anthracene	5600		E
191-24-2	Benzo(g,h,i)perylene	15000		E

(1) Cannot be separated from Diphenylamine

2/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-205/27-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N28879.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 19.2 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/21/09Injection Volume: 2 (μL)Dilution Factor: 100.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	1200000	D
91-57-6	2-Methylnaphthalene	860000	D
208-96-8	Acenaphthylene	390000	D
83-32-9	Acenaphthene	62000	DJ
86-73-7	Fluorene	250000	D
85-01-8	Phenanthrene	800000	D
120-12-7	Anthracene	230000	D
206-44-0	Fluoranthene	250000	D
129-00-0	Pyrene	320000	D
56-55-3	Benzo(a)anthracene	120000	D
218-01-9	Chrysene	120000	D
205-99-2	Benzo(b)fluoranthene	52000	DJ
207-08-9	Benzo(k)fluoranthene	21000	D/J
50-32-8	Benzo(a)pyrene	78000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	21000	DJ
53-70-3	Dibenzo(a,h)anthracene	5600 82000	DJ
191-24-2	Benzo(g,h,i)perylene	25000	DJ

(1) Cannot be separated from Diphenylamine

2/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP206/25-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID: 0813254-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A62109.D

Level: (low/med)

LOW

Date Received: 11/13/08

% Moisture: not dec.

15.6

Date Analyzed: 11/17/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	<u>2860</u>	U
108-88-3	Toluene	340	
100-41-4	Ethylbenzene	900	
1330-20-7	Xylene (total)	<u>21000 4700</u>	<u>E-1</u>

2/16/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP206/25-28DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS043

Matrix: (soil/water)

SOILLab Sample ID: 0813254-001ADLSample wt/vol: 4(g/mL) GLab File ID: A\A62373.D

Level: (low/med)

MEDDate Received: 11/13/08

% Moisture: not dec.

15.6Date Analyzed: 11/25/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

10000 (µL)Soil Aliquot Volume 100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	740	U
108-88-3	Toluene	500	DJ
100-41-4	Ethylbenzene	2400	D
1330-20-7	Xylene (total)	21000	D

210669
2

KEY-URS043 S16

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP206/25-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water) SOIL

Lab Sample ID: 0813254-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28312.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: 15.6 Decanted: (Y/N) N

Date Extracted: 11/24/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/25/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	270000	E
91-57-6	2-Methylnaphthalene	410000	E
208-96-8	Acenaphthylene	120000	E
83-32-9	Acenaphthene	30000	E
86-73-7	Fluorene	130000	E
85-01-8	Phenanthrene	300000	E
120-12-7	Anthracene	74000	E
206-44-0	Fluoranthene	80000	E
129-00-0	Pyrene	120000	E
56-55-3	Benzo(a)anthracene	63000	E
218-01-9	Chrysene	39000	E
205-99-2	Benzo(b)fluoranthene	32000	J
207-08-9	Benzo(k)fluoranthene	12000	J
50-32-8	Benzo(a)pyrene	39000	E
193-39-5	Indeno(1,2,3-cd)pyrene	8200	J
53-70-3	Dibenzo(a,h)anthracene	3500	J
191-24-2	Benzo(g,h,i)perylene	7600	J

(1) Cannot be separated from Diphenylamine

2/6/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP206/25-28DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water) SOIL

Lab Sample ID: 0813254-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28322.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: 15.6 Decanted: (Y/N) N

Date Extracted: 11/24/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/26/08

Injection Volume: 2 (μL)

Dilution Factor: 250.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	560000	D
91-57-6	2-Methylnaphthalene	650000	D
208-96-8	Acenaphthylene	270000	D
83-32-9	Acenaphthene	53000	DJ
86-73-7	Fluorene	200000	D
85-01-8	Phenanthrene	590000	D
120-12-7	Anthracene	170000	DJ
206-44-0	Fluoranthene	170000	DJ
129-00-0	Pyrene	240000	D
56-55-3	Benzo(a)anthracene	95000	DJ
218-01-9	Chrysene	94000	DJ
205-99-2	Benzo(b)fluoranthene	200000	U
207-08-9	Benzo(k)fluoranthene	200000	U
50-32-8	Benzo(a)pyrene	55000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	200000	U
53-70-3	Dibenzo(a,h)anthracene	200000	U
191-24-2	Benzo(g,h,i)perylene	200000	U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-207/25-29

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-002ASample wt/vol: 5 (g/mL) GLab File ID: V\F40144.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: not dec. 16.8Date Analyzed: 02/07/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	630	
108-88-3	Toluene	42000	E
100-41-4	Ethylbenzene	40000	E
1330-20-7	Xylene (total)	89000	E

2/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-207/25-29DL

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS056

Matrix: (soil/water) SOIL Lab Sample ID: 0901511-002A

Sample wt/vol: 4 (g/mL) G Lab File ID: A\A63213.D

Level: (low/med) MED Date Received: 01/19/09

% Moisture: not dec. 16.8 Date Analyzed: 01/28/09

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 4.00

Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CONCENTRATION UNITS:			
		(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
CAS NO.	COMPOUND		
71-43-2	Benzene	1000	DJ
108-88-3	Toluene	47000	D
100-41-4	Ethylbenzene	25000	D
1330-20-7	Xylene (total)	240000	D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-207/25-29

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-002BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28872.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 16.8 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/21/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	890000	E
91-57-6	2-Methylnaphthalene	1100000	E
208-96-8	Acenaphthylene	100000	E
83-32-9	Acenaphthene	21000	E
86-73-7	Fluorene	120000	E
85-01-8	Phenanthrene	750000	E
120-12-7	Anthracene	89000	E
206-44-0	Fluoranthene	250000	E
129-00-0	Pyrene	330000	E
56-55-3	Benzo(a)anthracene	140000	E
218-01-9	Chrysene	53000	E
205-99-2	Benzo(b)fluoranthene	35000	E
207-08-9	Benzo(k)fluoranthene	11000	J
50-32-8	Benzo(a)pyrene	44000	E
193-39-5	Indeno(1,2,3-cd)pyrene	8400	J
53-70-3	Dibenzo(a,h)anthracene	4200	J
191-24-2	Benzo(g,h,i)perylene	8300	J

(1) Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-207/25-29DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-002BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28880.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 16.8 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 100.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	1200000	D
91-57-6	2-Methylnaphthalene	960000	D
208-96-8	Acenaphthylene	400000	D
83-32-9	Acenaphthene	75000	DJ
86-73-7	Fluorene	270000	D
85-01-8	Phenanthrene	780000	D
120-12-7	Anthracene	230000	D
206-44-0	Fluoranthene	200000	D
129-00-0	Pyrene	280000	D
56-55-3	Benzo(a)anthracene	120000	D
218-01-9	Chrysene	120000	D
205-99-2	Benzo(b)fluoranthene	42000	DJ
207-08-9	Benzo(k)fluoranthene	79000	U
50-32-8	Benzo(a)pyrene	66000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	79000	U
53-70-3	Dibenzo(a,h)anthracene	79000	U
191-24-2	Benzo(g,h,i)perylene	17000	DJ

(1) Cannot be separated from Diphenylamine

2/27/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP208/28.5-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID: 0813254-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A62110.D

Level: (low/med)

LOW

Date Received: 11/13/08

% Moisture: not dec.

16.7

Date Analyzed: 11/17/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	<u>30 60</u>	U
108-88-3	Toluene	<u>30 60</u>	U
100-41-4	Ethylbenzene	65	
1330-20-7	Xylene (total)	230	<u>5</u>

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP208/28.5-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water) SOIL

Lab Sample ID: 0813254-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28313.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: 16.7 Decanted: (Y/N) N

Date Extracted: 11/24/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/26/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	4400	
91-57-6	2-Methylnaphthalene	95000	E
208-96-8	Acenaphthylene	52000	E
83-32-9	Acenaphthene	17000	E
86-73-7	Fluorene	54000	E
85-01-8	Phenanthrene	170000	E
120-12-7	Anthracene	56000	E
206-44-0	Fluoranthene	47000	E
129-00-0	Pyrene	83000	E
56-55-3	Benzo(a)anthracene	40000	E
218-01-9	Chrysene	30000	E
205-99-2	Benzo(b)fluoranthene	16000	E
207-08-9	Benzo(k)fluoranthene	6600	J
50-32-8	Benzo(a)pyrene	19000	E
193-39-5	Indeno(1,2,3-cd)pyrene	3000	J
53-70-3	Dibenzo(a,h)anthracene	1800	J
191-24-2	Benzo(g,h,i)perylene	2900	J

(1) Cannot be separated from Diphenylamine

2/16/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP208/28.5-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water) SOIL

Lab Sample ID: 0813254-002BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28323.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: 16.7 Decanted: (Y/N) N

Date Extracted: 11/24/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/26/08

Injection Volume: 2 (μL)

Dilution Factor: 40.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	32000	U
91-57-6	2-Methylnaphthalene	150000	D
208-96-8	Acenaphthylene	78000	D
83-32-9	Acenaphthene	23000	DJ
86-73-7	Fluorene	82000	D
85-01-8	Phenanthrene	230000	D
120-12-7	Anthracene	77000	D
206-44-0	Fluoranthene	69000	D
129-00-0	Pyrene	98000	D
56-55-3	Benzo(a)anthracene	41000	D
218-01-9	Chrysene	46000	D
205-99-2	Benzo(b)fluoranthene	17000	DJ
207-08-9	Benzo(k)fluoranthene	32000	U
50-32-8	Benzo(a)pyrene	24000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	32000	U
53-70-3	Dibenzo(a,h)anthracene	32000	U
191-24-2	Benzo(g,h,i)perylene	32000	U

(1) Cannot be separated from Diphenylamine

2/10/05

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-211 28'-30'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812510-001A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

A\A61626.D

Level: (low/med)

LOW

Date Received:

10/23/08

% Moisture: not dec.

13.3

Date Analyzed:

10/24/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	4	J
108-88-3	Toluene	48	
100-41-4	Ethylbenzene	36	
1330-20-7	Xylene (total)	110	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

211 28'-30'

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035Matrix: (soil/water) SOILLab Sample ID: 0812510-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C43441.DLevel: (low/med) LOWDate Received: 10/23/08% Moisture: 13.3 Decanted: (Y/N) NDate Extracted: 10/31/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 11/04/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	3800	U
91-57-6	2-Methylnaphthalene	3200	J
208-96-8	Acenaphthylene	27000	
83-32-9	Acenaphthene	9200	
86-73-7	Fluorene	31000	
85-01-8	Phenanthrene	51000	
120-12-7	Anthracene	26000	
206-44-0	Fluoranthene	31000	
129-00-0	Pyrene	45000	
56-55-3	Benzo(a)anthracene	23000	
218-01-9	Chrysene	23000	
205-99-2	Benzo(b)fluoranthene	8400	
207-08-9	Benzo(k)fluoranthene	3400	J
50-32-8	Benzo(a)pyrene	9900	
193-39-5	Indeno(1,2,3-cd)pyrene	1800	J
53-70-3	Dibenzo(a,h)anthracene	960	J
191-24-2	Benzo(g,h,i)perylene	1700	J

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-217/20-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035

Matrix: (soil/water)

SOILLab Sample ID: 0812291-001ASample wt/vol: 5(g/mL) GLab File ID: A\A61560.D

Level: (low/med)

LOWDate Received: 10/17/08

% Moisture: not dec.

4.72Date Analyzed: 10/21/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	5	J
108-88-3	Toluene	61	
100-41-4	Ethylbenzene	17000 1700	E D
1330-20-7	Xylene (total)	20000 2700	E D

1/26/04
r

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-217/20-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035

Matrix: (soil/water)

SOIL

Lab Sample ID: 0812291-001ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID: A\A61604.D

Level: (low/med)

MED

Date Received: 10/17/08

% Moisture: not dec.

4.72

Date Analyzed: 10/23/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 2.00

Soil Extract Volume:

10000 (μL)

Soil Aliquot Volume 100 (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	1300	U
108-88-3	Toluene	1300	U
100-41-4	Ethylbenzene	17000	D
1330-20-7	Xylene (total)	20000	D

1/26/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

217/20-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035Matrix: (soil/water) SOILLab Sample ID: 0812291-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C43343.DLevel: (low/med) LOWDate Received: 10/17/08% Moisture: 4.72 Decanted: (Y/N) NDate Extracted: 10/21/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 10/24/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	96000 84000	B D
91-57-6	2-Methylnaphthalene	88000 80000	B D
208-96-8	Acenaphthylene	3000	J
83-32-9	Acenaphthene	21000	
86-73-7	Fluorene	17000	
85-01-8	Phenanthrene	50000	
120-12-7	Anthracene	16000	
206-44-0	Fluoranthene	15000	
129-00-0	Pyrene	21000	
56-55-3	Benzo(a)anthracene	9700	
218-01-9	Chrysene	8500	
205-99-2	Benzo(b)fluoranthene	3500	
207-08-9	Benzo(k)fluoranthene	2300	J
50-32-8	Benzo(a)pyrene	5300	
193-39-5	Indeno(1,2,3-cd)pyrene	1100	J
53-70-3	Dibenzo(a,h)anthracene	3500	U
191-24-2	Benzo(g,h,i)perylene	1000	J

(1) Cannot be separated from Diphenylamine

11/26/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

217/20-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035Matrix: (soil/water) SOILLab Sample ID: 0812291-001BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43347.DLevel: (low/med) LOWDate Received: 10/17/08% Moisture: 4.72 Decanted: (Y/N) NDate Extracted: 10/21/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 10/24/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	96000	D
91-57-6	2-Methylnaphthalene	88000	D
208-96-8	Acenaphthylene	17000	U
83-32-9	Acenaphthene	21000	D
86-73-7	Fluorene	18000	D
85-01-8	Phenanthrene	54000	D
120-12-7	Anthracene	15000	DJ
206-44-0	Fluoranthene	15000	DJ
129-00-0	Pyrene	20000	D
56-55-3	Benzo(a)anthracene	8800	DJ
218-01-9	Chrysene	8400	DJ
205-99-2	Benzo(b)fluoranthene	17000	U
207-08-9	Benzo(k)fluoranthene	17000	U
50-32-8	Benzo(a)pyrene	5000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	17000	U
53-70-3	Dibenzo(a,h)anthracene	17000	U
191-24-2	Benzo(g,h,i)perylene	17000	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-217/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812291-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID:

A\A61561.D

Level: (low/med)

LOW

Date Received:

10/17/08

% Moisture: not dec.

13.1

Date Analyzed:

10/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

_____ (μL)

Soil Aliquot Volume

_____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	<u>8 12</u>	U
108-88-3	Toluene	15	
100-41-4	Ethylbenzene	1100	<u>ED</u>
1330-20-7	Xylene (total)	1700	<u>ED</u>

1/26/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-217/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035

Matrix: (soil/water)

SOILLab Sample ID: 0812291-002ADLSample wt/vol: 5(g/mL) GLab File ID: A\A61620.D

Level: (low/med)

LOWDate Received: 10/17/08

% Moisture: not dec.

13.1Date Analyzed: 10/24/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	29	U
108-88-3	Toluene	29	U
100-41-4	Ethylbenzene	1100	D
1330-20-7	Xylene (total)	1700	D

1/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

217/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035Matrix: (soil/water) SOILLab Sample ID: 0812291-002BSample wt/vol: 15 (g/mL) GLab File ID: A\C43344.DLevel: (low/med) LOWDate Received: 10/17/08% Moisture: 13.1 Decanted: (Y/N) NDate Extracted: 10/21/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 10/24/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	72000 63000	FD
91-57-6	2-Methylnaphthalene	88000 79000	FD
208-96-8	Acenaphthylene	5200	
83-32-9	Acenaphthene	38000	
86-73-7	Fluorene	31000	
85-01-8	Phenanthrene	12000 100000	FD
120-12-7	Anthracene	29000	
206-44-0	Fluoranthene	38000	
129-00-0	Pyrene	47000	
56-55-3	Benzo(a)anthracene	25000	
218-01-9	Chrysene	22000	
205-99-2	Benzo(b)fluoranthene	10000	
207-08-9	Benzo(k)fluoranthene	4700	J
50-32-8	Benzo(a)pyrene	13000	
193-39-5	Indeno(1,2,3-cd)pyrene	3200	J
53-70-3	Dibenzo(a,h)anthracene	1400	J
191-24-2	Benzo(g,h,i)perylene	2700	J

(1) Cannot be separated from Diphenylamine

11/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

217/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS035Matrix: (soil/water) SOILLab Sample ID: 0812291-002BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43348.DLevel: (low/med) LOWDate Received: 10/17/08% Moisture: 13.1 Decanted: (Y/N) NDate Extracted: 10/21/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 10/24/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	72000		D
91-57-6	2-Methylnaphthalene	88000		D
208-96-8	Acenaphthylene	5300		DJ
83-32-9	Acenaphthene	42000		D
86-73-7	Fluorene	35000		D
85-01-8	Phenanthrene	120000		D
120-12-7	Anthracene	31000		D
206-44-0	Fluoranthene	43000		D
129-00-0	Pyrene	54000		D
56-55-3	Benzo(a)anthracene	24000		D
218-01-9	Chrysene	22000		D
205-99-2	Benzo(b)fluoranthene	9200		DJ
207-08-9	Benzo(k)fluoranthene	19000		U
50-32-8	Benzo(a)pyrene	14000		DJ
193-39-5	Indeno(1,2,3-cd)pyrene	19000		U
53-70-3	Dibenzo(a,h)anthracene	19000		U
191-24-2	Benzo(g,h,i)perylene	19000		U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-234/23-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813071-001ASample wt/vol: 5(g/mL) G

Lab File ID:

A\A61925.D

Level: (low/med)

LOW

Date Received:

11/07/08

% Moisture: not dec.

16.5

Date Analyzed:

11/10/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	8.12	U
108-88-3	Toluene	8.1	U
100-41-4	Ethylbenzene	31	
1330-20-7	Xylene (total)	54	

1/27/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

234/23-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037Matrix: (soil/water) SOILLab Sample ID: 0813071-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C43649.DLevel: (low/med) LOWDate Received: 11/07/08% Moisture: 16.5 Decanted: (Y/N) NDate Extracted: 11/11/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 11/17/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	76000	E
91-57-6	2-Methylnaphthalene	350000	E
208-96-8	Acenaphthylene	140000	E
83-32-9	Acenaphthene	30000	
86-73-7	Fluorene	110000	E
85-01-8	Phenanthrene	360000	E
120-12-7	Anthracene	100000	E
206-44-0	Fluoranthene	89000	E
129-00-0	Pyrene	140000	E
56-55-3	Benzo(a)anthracene	49000	
218-01-9	Chrysene	42000	
205-99-2	Benzo(b)fluoranthene	22000	
207-08-9	Benzo(k)fluoranthene	9900	J
50-32-8	Benzo(a)pyrene	39000	
193-39-5	Indeno(1,2,3-cd)pyrene	7700	
53-70-3	Dibenzo(a,h)anthracene	3000	J
191-24-2	Benzo(g,h,i)perylene	8600	

(1) Cannot be separated from Diphenylamine

11/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

234/23-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water) SOIL

Lab Sample ID: 0813071-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43650.D

Level: (low/med) LOW

Date Received: 11/07/08

% Moisture: 16.5 Decanted: (Y/N) N

Date Extracted: 11/11/08

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 11/17/08

Injection Volume: 2 (μL)

Dilution Factor: 100.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	100000	D
91-57-6	2-Methylnaphthalene	500000	D
208-96-8	Acenaphthylene	200000	D
83-32-9	Acenaphthene	36000	DJ
86-73-7	Fluorene	150000	D
85-01-8	Phenanthrene	460000	D
120-12-7	Anthracene	120000	D
206-44-0	Fluoranthene	110000	D
129-00-0	Pyrene	180000	D
56-55-3	Benzo(a)anthracene	60000	D
218-01-9	Chrysene	48000	D
205-99-2	Benzo(b)fluoranthene	21000	DJ
207-08-9	Benzo(k)fluoranthene	14000	DJ
50-32-8	Benzo(a)pyrene	43000	D
193-39-5	Indeno(1,2,3-cd)pyrene	11000	DJ
53-70-3	Dibenzo(a,h)anthracene	40000	U
194-24-2	Benzo(g,h,i)perylene	12000	DJ

11/28/09
2

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0813071-001

Sample Information...
Type : Soil

Origin:

Client ID. : DGP-234/23-25

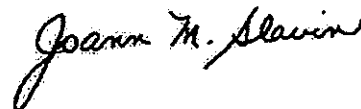
Collected : 11/6/2008 9:30:00 AM
Received : 11/7/2008 4:20:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	16.5		1	wt%	D2216	11/10/2008 4:32 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/18/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : **0813071-002**

Sample Information...

Type : Soil

Origin:

Client ID. : DGP-234/38-39

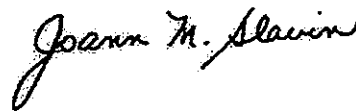
Collected : 11/6/2008 10:30:00 AM
Received : 11/7/2008 4:20:00 PM
Collected By Client
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Cyanide	< 0.61		1	mg/Kg-dry	SW9014	11/11/2008 1:19 PM
Percent Moisture	17.5		1	wt%	D2216	11/10/2008 4:28 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/18/2008



Laboratory Manager

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-251/10-13

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-001A

Sample wt/vol:

5(g/mL) g

Lab File ID:

V\F39635.D

Level: (low/med)

LOW

Date Received:

12/30/08

% Moisture: not dec.

6.3

Date Analyzed:

01/08/09GC Column: DB-624ID: 0.18 (mm)

Dilution Factor:

10.00

Soil Extract Volume:

(μL)

Soil Aliquot Volume

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	15	J
108-88-3	Toluene	79	J
100-41-4	Ethylbenzene	57000 16000	ED
1330-20-7	Xylene (total)	35000 11000	ED

2/25/09

KEY-URS053 S15

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/10-13

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-001ASample wt/vol: 4(g/mL) G

Lab File ID:

A\A62921.D

Level: (low/med)

MED

Date Received:

12/30/08

% Moisture: not dec.

6.3

Date Analyzed:

01/12/09GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

4.00

Soil Extract Volume:

10000 (μL)

Soil Aliquot Volume

100 (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	2700 <u>5300</u>	U
108-88-3	Toluene	2700 ↓	U
100-41-4	Ethylbenzene	57000	D
1330-20-7	Xylene (total)	35000	D

2/25/09

KEY-URS053 S16

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/10-13

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053Matrix: (soil/water) SOILLab Sample ID: 0814756-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28750.DLevel: (low/med) LOWDate Received: 12/30/08% Moisture: 6.3 Decanted: (Y/N) NDate Extracted: 01/06/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/07/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	300000	E
91-57-6	2-Methylnaphthalene	560000	E
208-96-8	Acenaphthylene	32000	E
83-32-9	Acenaphthene	110000	E
86-73-7	Fluorene	160000	E
85-01-8	Phenanthrene	5200000	E
120-12-7	Anthracene	620000	E
206-44-0	Fluoranthene	1100000	E
129-00-0	Pyrene	650000	E
56-55-3	Benzo(a)anthracene	280000	E
218-01-9	Chrysene	100000	E
205-99-2	Benzo(b)fluoranthene	46000	E
207-08-9	Benzo(k)fluoranthene	13000	E
50-32-8	Benzo(a)pyrene	54000	E
193-39-5	Indeno(1,2,3-cd)pyrene	16000	E
53-70-3	Dibenzo(a,h)anthracene	7600	J
191-24-2	Benzo(g,h,i)perylene	16000	E

(1) Cannot be separated from Diphenylamine

2/26/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/10-13DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water) SOIL

Lab Sample ID: 0814756-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28759.D

Level: (low/med) LOW

Date Received: 12/30/08

% Moisture: 6.3 Decanted: (Y/N) N

Date Extracted: 01/06/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/09/09

Injection Volume: 2 (μL)

Dilution Factor: 100.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	500000	D
91-57-6	2-Methylnaphthalene	830000	D
208-96-8	Acenaphthylene	41000	DJ
83-32-9	Acenaphthene	210000	D
86-73-7	Fluorene	290000	D
85-01-8	Phenanthrene	1000000	D
120-12-7	Anthracene	190000	D
206-44-0	Fluoranthene	280000	D
129-00-0	Pyrene	410000	D
56-55-3	Benzo(a)anthracene	170000	D
218-01-9	Chrysene	190000	D
205-99-2	Benzo(b)fluoranthene	62000	DJ
207-08-9	Benzo(k)fluoranthene	32000	DJ
50-32-8	Benzo(a)pyrene	100000	D
193-39-5	Indeno(1,2,3-cd)pyrene	23000	DJ
53-70-3	Dibenzo(a,h)anthracene	70000	D
191-24-2	Benzo(g,h,i)perylene	29000	DJ

(1) Cannot be separated from Diphenylamine

2/26/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/20-22

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID: 0814756-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID: V\F39636.D

Level: (low/med)

LOW

Date Received: 12/30/08

% Moisture: not dec.

6.6

Date Analyzed: 01/09/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	13	J
108-88-3	Toluene	26	J
100-41-4	Ethylbenzene	8500 10000	E D
1330-20-7	Xylene (total)	5900 14000	E D

2/26/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/20-22

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID: 0814756-002A

Sample wt/vol: 4

(g/mL) G

Lab File ID: A\A62922.D

Level: (low/med)

MED

Date Received: 12/30/08

% Moisture: not dec.

6.6

Date Analyzed: 01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 2.00

Soil Extract Volume: _____

10000 (μL)

Soil Aliquot Volume 100 (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	4300 2600	U
108-88-3	Toluene	1300 2600	U
100-41-4	Ethylbenzene	8500	D
1330-20-7	Xylene (total)	5900	D

2/26/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/20-22

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water) SOIL

Lab Sample ID: 0814756-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28751.D

Level: (low/med) LOW

Date Received: 12/30/08

% Moisture: 6.6 Decanted: (Y/N) N

Date Extracted: 01/06/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/07/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	9700		
91-57-6	2-Methylnaphthalene	21000 15000		B-D
208-96-8	Acenaphthylene	2500		
83-32-9	Acenaphthene	5000		
86-73-7	Fluorene	5900		
85-01-8	Phenanthrene	24000 21000		B-D
120-12-7	Anthracene	5800		
206-44-0	Fluoranthene	5600		
129-00-0	Pyrene	9500		J
56-55-3	Benzo(a)anthracene	4600		
218-01-9	Chrysene	4600		
205-99-2	Benzo(b)fluoranthene	2900		
207-08-9	Benzo(k)fluoranthene	1100		
50-32-8	Benzo(a)pyrene	3700		
193-39-5	Indeno(1,2,3-cd)pyrene	780		
53-70-3	Dibenzo(a,h)anthracene	360		
191-24-2	Benzo(g,h,i)perylene	840		J

(1) Cannot be separated from Diphenylamine

2/26/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-251/20-22DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053Matrix: (soil/water) SOILLab Sample ID: 0814756-002BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N28760.DLevel: (low/med) LOWDate Received: 12/30/08% Moisture: 6.6 Decanted: (Y/N) NDate Extracted: 01/06/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/09/09Injection Volume: 2 (μL)Dilution Factor: 4.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFE

CONCENTRATION UNITS:

(μg/L or μg/kg) UG/KG Q

CAS NO.	COMPOUND		
91-20-3	Naphthalene	11000	D
91-57-6	2-Methylnaphthalene	21000	D
208-96-8	Acenaphthylene	2500	DJ
83-32-9	Acenaphthene	5600	D
86-73-7	Fluorene	6300	D
85-01-8	Phenanthrene	24000	D
120-12-7	Anthracene	5900	D
206-44-0	Fluoranthene	6700	D
129-00-0	Pyrene	9500	D
56-55-3	Benzo(a)anthracene	4600	D
218-01-9	Chrysene	5600	D
205-99-2	Benzo(b)fluoranthene	2700	DJ
207-08-9	Benzo(k)fluoranthene	840	DJ
50-32-8	Benzo(a)pyrene	3800	D
193-39-5	Indeno(1,2,3-cd)pyrene	1200	DJ
53-70-3	Dibenzo(a,h)anthracene	2800	U
191-24-2	Benzo(g,h,i)perylene	1500	DJ

(1) Cannot be separated from Diphenylamine

2/26/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/25-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-003A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

V\F39637.D

Level: (low/med)

LOW

Date Received:

12/30/08

% Moisture: not dec.

18.1

Date Analyzed:

01/09/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor:

10.00

Soil Extract Volume:

_____ (μL)

Soil Aliquot Volume

_____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	<u>1120</u>	U
108-88-3	Toluene	33	<u>✓</u> 5
100-41-4	Ethylbenzene	11000 19000	✓ 0
1330-20-7	Xylene (total)	11000 26000	✓ 0

2/25/09
2

KEY-URS053 S23

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-251/25-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-003A

Sample wt/vol: 4

(g/mL) G

Lab File ID:

A\A62923.D

Level: (low/med)

MED

Date Received:

12/30/08

% Moisture: not dec.

18.1

Date Analyzed:

01/12/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

2.00

Soil Extract Volume:

10000 (μL)

Soil Aliquot Volume

100 (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	1500 <u>3100</u>	U
108-88-3	Toluene	1500 <u>3100</u>	U
100-41-4	Ethylbenzene	11000	D
1330-20-7	Xylene (total)	11000	D

2/26/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-251/25-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053Matrix: (soil/water) SOILLab Sample ID: 0814756-003BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28749.DLevel: (low/med) LOWDate Received: 12/30/08% Moisture: 18.1 Decanted: (Y/N) NDate Extracted: 01/06/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 01/07/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	100	J
91-57-6	2-Methylnaphthalene	130	J
208-96-8	Acenaphthylene	210	J
83-32-9	Acenaphthene	860	
86-73-7	Fluorene	980	
85-01-8	Phenanthrene	3800	
120-12-7	Anthracene	1500	
206-44-0	Fluoranthene	2600	
129-00-0	Pyrene	3400	
56-55-3	Benzo(a)anthracene	1600	
218-01-9	Chrysene	1500	
205-99-2	Benzo(b)fluoranthene	640	
207-08-9	Benzo(k)fluoranthene	340	15
50-32-8	Benzo(a)pyrene	890	
193-39-5	Indeno(1,2,3-cd)pyrene	260	J
53-70-3	Dibenzo(a,h)anthracene	97	J
191-24-2	Benzo(g,h,i)perylene	280	J

(1) Cannot be separated from Diphenylamine

2/26/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-253/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS032

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812019-002A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

A\A61429.D

Level: (low/med)

LOW

Date Received:

10/10/08

% Moisture: not dec.

9.4

Date Analyzed:

10/13/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

_____ (pL)

Soil Aliquot Volume

_____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	8 12	U
108-88-3	Toluene	19	J
100-41-4	Ethylbenzene	3	J
1330-20-7	Xylene (total)	30	J

1/22/09
m

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

253/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS032Matrix: (soil/water) SOILLab Sample ID: 0812019-002DSample wt/vol: 15 (g/mL) GLab File ID: A\C43308.DLevel: (low/med) LOWDate Received: 10/10/08% Moisture: 9.4 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/21/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	10000	J
91-57-6	2-Methylnaphthalene	89000	E
208-96-8	Acenaphthylene	59000	E
83-32-9	Acenaphthene	23000	E
86-73-7	Fluorene	88000	E
85-01-8	Phenanthrene	230000	E
120-12-7	Anthracene	48000	E
206-44-0	Fluoranthene	65000	E
129-00-0	Pyrene	73000	E
56-55-3	Benzo(a)anthracene	53000	E
218-01-9	Chrysene	27000	E
205-99-2	Benzo(b)fluoranthene	26000	E
207-08-9	Benzo(k)fluoranthene	9300	J
50-32-8	Benzo(a)pyrene	33000	E
193-39-5	Indeno(1,2,3-cd)pyrene	4900	J
53-70-3	Dibenzo(a,h)anthracene	2400	J
191-24-2	Benzo(g,h,i)perylene	4800	J

(1) Cannot be separated from Diphenylamine

1/22/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

253/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS032Matrix: (soil/water) SOILLab Sample ID: 0812019-G02DDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43317.DLevel: (low/med) LOWDate Received: 10/10/08% Moisture: 9.4 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/22/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	10000	DJ
91-57-6	2-Methylnaphthalene	210000	D
208-96-8	Acenaphthylene	91000	D
83-32-9	Acenaphthene	19000	DJ
86-73-7	Fluorene	140000	D
85-01-8	Phenanthrene	440000	D
120-12-7	Anthracene	110000	D
206-44-0	Fluoranthene	120000	D
129-00-0	Pyrene	180000	D
56-55-3	Benzo(a)anthracene	67000	D
218-01-9	Chrysene	58000	D
205-99-2	Benzo(b)fluoranthene	22000	DJ
207-08-9	Benzo(k)fluoranthene	9900	D/J
50-32-8	Benzo(a)pyrene	37000	D
193-39-5	Indeno(1,2,3-cd)pyrene	9700	DJ
53-70-3	Dibenzo(a,h)anthracene	36000	U
191-24-2	Benzo(g,h,i)perylene	12000	DJ

(1) Cannot be separated from Diphenylamine

11/22/09

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Michael Akerbergs

Lab No. : 0812019-002

Sample Information...

Type : Soil

Origin:

Client ID. : DGP-253/30-35

Collected : 10/9/2008 2:30:00 PM

Received : 10/10/2008 2:00:00 PM

Collected By Client

Copies To : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	9.4		1	wt%	D2216	10/13/2008 11:26 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/5/2008

Joann M. Slavine

Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0813522-001

Sample Information...

Type : Soil

Origin:

Client ID. : DGP-257/45-50

Collected : 11/20/2008 9:50:00 AM

Received : 11/20/2008 4:12:00 PM

Collected By Client

Copies To : Original

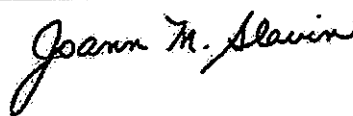
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Cyanide	< 0.56		1	mg/Kg-dry	SW9014	11/25/2008 1:23 PM
Percent Moisture	10.1		1	wt%	D2216	11/24/2008 12:06 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 12/10/2008



Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP261/33-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID: 0813254-003A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A62111.D

Level: (low/med)

LOW

Date Received: 11/13/08

% Moisture: not dec.

13.7

Date Analyzed: 11/17/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____ (pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	6400	<u>2.5</u>
108-88-3	Toluene	19000	E
100-41-4	Ethylbenzene	13000	E
1330-20-7	Xylene (total)	28000	E

2/13/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP261/33-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813254-003ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID:

A\A62374.D

Level: (low/med)

MED

Date Received:

11/13/08

% Moisture: not dec.

13.7

Date Analyzed:

11/25/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

50.00

Soil Extract Volume:

10000 (µL)

Soil Aliquot Volume

100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	26000	U
108-88-3	Toluene	250000	D
100-41-4	Ethylbenzene	68000	D
1330-20-7	Xylene (total)	380000	D

2/13/09
2

KEY-URS043 S23

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP261/33-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Matrix: (soil/water) SOILLab Sample ID: 0813254-003BSample wt/vol: 15 (g/mL) GLab File ID: 8\N28314.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: 13.7 Decanted: (Y/N) NDate Extracted: 11/24/08Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 11/26/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/KG	Q
91-20-3	Naphthalene	720000	E
91-57-6	2-Methylnaphthalene	770000	E
208-96-8	Acenaphthylene	140000	E
83-32-9	Acenaphthene	38000	E
86-73-7	Fluorene	120000	E
85-01-8	Phenanthrene	480000	E
120-12-7	Anthracene	89000	E
206-44-0	Fluoranthene	140000	E
129-00-0	Pyrene	190000	E
56-55-3	Benzo(a)anthracene	120000	E
218-01-9	Chrysene	75000	E
205-99-2	Benzo(b)fluoranthene	31000	J
207-08-9	Benzo(k)fluoranthene	15000	J
50-32-8	Benzo(a)pyrene	44000	E
193-39-5	Indeno(1,2,3-cd)pyrene	9400	J
53-70-3	Dibenzo(a,h)anthracene	5100	
191-24-2	Benzo(g,h,i)perylene	4000	↓

(1) Cannot be separated from Diphenylamine

2/16/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP261/33-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water) SOIL

Lab Sample ID: 0813254-003BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28324.D

Level: (low/med) LOW

Date Received: 11/13/08

% Moisture: 13.7 Decanted: (Y/N) N

Date Extracted: 11/24/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 11/26/08

Injection Volume: 2 (μL)

Dilution Factor: 500.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	2100000	D
91-57-6	2-Methylnaphthalene	1700000	D
208-96-8	Acenaphthylene	650000	D
83-32-9	Acenaphthene	140000	DJ
86-73-7	Fluorene	460000	D
85-01-8	Phenanthrene	1200000	D
120-12-7	Anthracene	380000	D
206-44-0	Fluoranthene	310000	DJ
129-00-0	Pyrene	460000	D
56-55-3	Benzo(a)anthracene	190000	DJ
218-01-9	Chrysene	210000	DJ
205-99-2	Benzo(b)fluoranthene	380000	U
207-08-9	Benzo(k)fluoranthene	380000	U
50-32-8	Benzo(a)pyrene	100000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	380000	U
53-70-3	Dibenzo(a,h)anthracene	380000	U
191-24-2	Benzo(g,h,i)perylene	380000	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP262/32.5-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813254-004A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

A\A62113.D

Level: (low/med)

LOW

Date Received:

11/13/08

% Moisture: not dec.

13.2

Date Analyzed:

11/17/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	210	
108-88-3	Toluene	5400 3000	B D
100-41-4	Ethylbenzene	7200 1200	B D
1330-20-7	Xylene (total)	53200 7500	B D

2/16/09

KEY-URS043 S26

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP262/32.5-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813254-004ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID:

A\A62375.D

Level: (low/med)

MED

Date Received:

11/13/08

% Moisture: not dec.

13.2

Date Analyzed:

11/25/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

10000 (µL)

Soil Aliquot Volume

100 (µL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/KG

Q

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	720	U
108-88-3	Toluene	5400	D
100-41-4	Ethylbenzene	7200	D
1330-20-7	Xylene (total)	55000	D

2/16/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP262/32.5-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Matrix: (soil/water) SOILLab Sample ID: 0813254-004ESample wt/vol: 15 (g/mL) GLab File ID: 8\N28306.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: 13.2 Decanted: (Y/N) NDate Extracted: 11/24/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 11/25/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	35000	E
91-57-6	2-Methylnaphthalene	37000	E
208-96-8	Acenaphthylene	15000	E
83-32-9	Acenaphthene	3500	
86-73-7	Fluorene	10000	E
85-01-8	Phenanthrene	27000	E
120-12-7	Anthracene	9800	E
206-44-0	Fluoranthene	7000	E
129-00-0	Pyrene	11000	E
56-55-3	Benzo(a)anthracene	5900	
218-01-9	Chrysene	5800	
205-99-2	Benzo(b)fluoranthene	2200	
207-08-9	Benzo(k)fluoranthene	990	J
50-32-8	Benzo(a)pyrene	2900	
193-39-5	Indeno(1,2,3-cd)pyrene	510	
53-70-3	Dibenzo(a,h)anthracene	300	J
191-24-2	Benzo(g,h,i)perylene	470	

(1) Cannot be separated from Diphenylamine

2/16/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP262/32.5-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Matrix: (soil/water) SOILLab Sample ID: 0813254-004BDLSample wt/vol: 15 (g/mL) GLab File ID: 8\N28325.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: 13.2 Decanted: (Y/N) NDate Extracted: 11/24/08Concentrated Extract Volume: 500 (μ L)Date Analyzed: 11/26/08Injection Volume: 2 (μ L)Dilution Factor: 25.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg)	UG/KG	Q
91-20-3	Naphthalene	55000		D
91-57-6	2-Methylnaphthalene	50000		D
208-96-8	Acenaphthylene	20000		D
83-32-9	Acenaphthene	4100		DJ
86-73-7	Fluorene	14000		D
85-01-8	Phenanthrene	39000		D
120-12-7	Anthracene	12000		D
206-44-0	Fluoranthene	9800		D
129-00-0	Pyrene	15000		D
56-55-3	Benzo(a)anthracene	6200		DJ
218-01-9	Chrysene	6900		DJ
205-99-2	Benzo(b)fluoranthene	9500		U
207-08-9	Benzo(k)fluoranthene	9500		U
50-32-8	Benzo(a)pyrene	3200		DJ
193-39-5	Indeno(1,2,3-cd)pyrene	9500		U
53-70-3	Dibenzo(a,h)anthracene	9500		U
181-24-2	Benzo(g,h,i)perylene	9500		U

(1) Cannot be separated from Diphenylamine

2/16/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP263/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813254-005A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

A\A62114.D

Level: (low/med)

LOW

Date Received:

11/13/08

% Moisture: not dec.

16.1

Date Analyzed:

11/17/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/KG	Q
71-43-2	Benzene	<u>2860</u>	U
108-88-3	Toluene	300	
100-41-4	Ethylbenzene	<u>2800</u> <u>1200</u>	<u>ED</u>
1330-20-7	Xylene (total)	<u>3200</u> <u>9200</u>	<u>ED</u>

2/16/09
2

KEY-URS043 S30

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP263/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043

Matrix: (soil/water)

SOIL

Lab Sample ID:

0813254-005ADLSample wt/vol: 4(g/mL) G

Lab File ID:

A\A62376.D

Level: (low/med)

MED

Date Received:

11/13/08

% Moisture: not dec.

16.1

Date Analyzed:

11/25/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

10000

(μL)

Soil Aliquot Volume

100 (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	740	U
108-88-3	Toluene	740	U
100-41-4	Ethylbenzene	2800	D
1330-20-7	Xylene (total)	32000	D

2/16/09
2

KEY-URS043 S31

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP263/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Matrix: (soil/water) SOILLab Sample ID: 0813254-005BSample wt/vol: 15 (g/mL) GLab File ID: 8\N28307.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: 16.1 Decanted: (Y/N) NDate Extracted: 11/24/08Concentrated Extract Volume: 500 (μ L)Date Analyzed: 11/25/08Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	52000	E
91-57-6	2-Methylnaphthalene	52000	E
208-96-0	Acenaphthylene	17000	E
83-32-9	Acenaphthene	4200	
86-73-7	Fluorene	13000	E
85-01-8	Phenanthrene	32000	E
120-12-7	Anthracene	12000	E
206-44-0	Fluoranthene	8600	E
129-00-0	Pyrene	14000	E
56-55-3	Benzo(a)anthracene	7000	E
218-01-9	Chrysene	6500	E
205-99-2	Benzo(b)fluoranthene	2700	
207-08-9	Benzo(k)fluoranthene	980	J
50-32-8	Benzo(a)pyrene	3400	
193-39-5	Indeno(1,2,3-cd)pyrene	560	
53-70-3	Dibenzo(a,h)anthracene	320	J
191-24-2	Benzo(g,h,i)perylene	490	

(1) Cannot be separated from Diphenylamine

2/16/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP263/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Matrix: (soil/water) SOILLab Sample ID: 0813254-005BDLSample wt/vol: 15 (g/mL) GLab File ID: 8\N28326.DLevel: (low/med) LOWDate Received: 11/13/08% Moisture: 16.1 Decanted: (Y/N) NDate Extracted: 11/24/08Concentrated Extract Volume: 500 (μL)Date Analyzed: 11/26/08Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	85000	D
91-57-6	2-Methylnaphthalene	70000	D
208-96-8	Acenaphthylene	24000	D
83-32-9	Acenaphthene	4800	DJ
86-73-7	Fluorene	17000	DJ
85-01-8	Phenanthrene	47000	D
120-12-7	Anthracene	14000	DJ
206-44-0	Fluoranthene	12000	DJ
129-00-0	Pyrene	18000	DJ
56-55-3	Benzo(a)anthracene	7100	DJ
218-01-9	Chrysene	8000	DJ
205-99-2	Benzo(b)fluoranthene	20000	U
207-08-9	Benzo(k)fluoranthene	20000	U
50-32-8	Benzo(a)pyrene	20000	U
193-39-5	Indeno(1,2,3-cd)pyrene	20000	U
53-70-3	Dibenzo(a,h)anthracene	20000	U
191-24-2	Benzo(g,h,i)perylene	20000	U

(1) Cannot be separated from Diphenylamine

2/16/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-264/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-004A

Sample wt/vol: 5

(g/mL) g

Lab File ID:

V\F39638.D

Level: (low/med)

LOW

Date Received:

12/30/08

% Moisture: not dec.

16.7

Date Analyzed:

01/09/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor:

10.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG		Q
71-43-2	Benzene	1800	<u>120</u>	U
108-88-3	Toluene	<u>1800</u>	3500	E D
100-41-4	Ethylbenzene	<u>3500</u>	4900	E D
1330-20-7	Xylene (total)	<u>6700</u>	46000	E D

2/26/09

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-264/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water)

SOIL

Lab Sample ID:

0814756-004ASample wt/vol: 4(g/mL) G

Lab File ID:

A\A62924.D

Level: (low/med)

MED

Date Received:

12/30/08

% Moisture: not dec.

16.7

Date Analyzed:

01/12/09GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

4.00

Soil Extract Volume:

10000 (μ L)

Soil Aliquot Volume

100 (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	3000 <u>6000</u>	U
108-88-3	Toluene	1800	DJ
100-41-4	Ethylbenzene	3500	D
1330-20-7	Xylene (total)	67000	D

2/26/3
2

KEY-URS053 S27

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-264/30-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water) SOIL

Lab Sample ID: 0814756-004B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28752.D

Level: (low/med) LOW

Date Received: 12/30/08

% Moisture: 16.7 Decanted: (Y/N) N

Date Extracted: 01/06/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/07/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	440000	E
91-57-6	2-Methylnaphthalene	570000	E
208-96-8	Acenaphthylene	150000	E
83-32-9	Acenaphthene	29000	E
86-73-7	Fluorene	120000	E
85-01-8	Phenanthrene	3100000	E
120-12-7	Anthracene	640000	E
206-44-0	Fluoranthene	650000	E
129-00-0	Pyrene	200000	E
56-55-3	Benzo(a)anthracene	67000	E
218-01-9	Chrysene	36000	E
205-99-2	Benzo(b)fluoranthene	31000	E
207-08-9	Benzo(k)fluoranthene	6800	J
50-32-8	Benzo(a)pyrene	38000	E
193-39-5	Indeno(1,2,3-cd)pyrene	8300	J
53-70-3	Dibenzo(a,h)anthracene	3500	J
191-24-2	Benzo(g,h,i)perylene	8900	J

(1) Cannot be separated from Diphenylamine

2/26/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-264/30-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Matrix: (soil/water) SOIL

Lab Sample ID: 0814756-004BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28761.D

Level: (low/med) LOW

Date Received: 12/30/08

% Moisture: 16.7 Decanted: (Y/N) N

Date Extracted: 01/06/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/09/09

Injection Volume: 2 (μL)

Dilution Factor: 100.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	690000	D
91-57-6	2-Methylnaphthalene	780000	D
208-96-8	Acenaphthylene	350000	D
83-32-9	Acenaphthene	47000	DJ
86-73-7	Fluorene	220000	D
85-01-8	Phenanthrene	700000	D
120-12-7	Anthracene	190000	D
206-44-0	Fluoranthene	170000	D
129-00-0	Pyrene	270000	D
56-55-3	Benzo(a)anthracene	75000	DJ
218-01-9	Chrysene	68000	DJ
205-99-2	Benzo(b)fluoranthene	34000	DJ
207-08-9	Benzo(k)fluoranthene	79000	U
50-32-8	Benzo(a)pyrene	61000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	79000	U
53-70-3	Dibenzo(a,h)anthracene	79000	U
191-24-2	Benzo(g,h,i)perylene	17000	DJ

(1) Cannot be separated from Diphenylamine

2/26/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-265/32.5-33

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS054

Matrix: (soil/water)

SOILLab Sample ID: 0901189-001ASample wt/vol: 5(g/mL) GLab File ID: V\F39641.D

Level: (low/med)

LOWDate Received: 01/07/09

% Moisture: not dec.

19.5Date Analyzed: 01/09/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	32 <u>120</u>	U
108-88-3	Toluene	38	J
100-41-4	Ethylbenzene	1800	
1330-20-7	Xylene (total)	1300 <u>14000</u>	EDJ

2/26/09
2

KEY-URS054 S15

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-265/32.5-33

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS054

Matrix: (soil/water)

SOIL

Lab Sample ID: 0901189-001A

Sample wt/vol: 4

(g/mL) G

Lab File ID: A\A63121.D

Level: (low/med)

MED

Date Received: 01/07/09

% Moisture: not dec.

19.5

Date Analyzed: 01/21/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: 10000

(μ L)

Soil Aliquot Volume 100 (μ L)

CONCENTRATION UNITS:

(μ g/L or μ g/Kg) UG/KG

CAS NO.	COMPOUND	Q
71-43-2	Benzene	780 1600 U
108-88-3	Toluene	780 + U
100-41-4	Ethylbenzene	1800 D
1330-20-7	Xylene (total)	13000 D

2/26/09

KEY-URS054 S16

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP265/32.5-33

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS054Matrix: (soil/water) SOILLab Sample ID: 0901189-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28787.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: 19.5 Decanted: (Y/N) NDate Extracted: 01/12/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 01/13/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	540000	E
91-57-6	2-Methylnaphthalene	920000	E
208-96-8	Acenaphthylene	120000	E
83-32-9	Acenaphthene	29000	E
86-73-7	Fluorene	190000	E
85-01-8	Phenanthrene	2800000	E
120-12-7	Anthracene	360000	E
206-44-0	Fluoranthene	480000	E
129-00-0	Pyrene	530000	E
56-55-3	Benzo(a)anthracene	180000	E
218-01-9	Chrysene	50000	E
205-99-2	Benzo(b)fluoranthene	30000	E
207-08-9	Benzo(k)fluoranthene	11000	E J
50-32-8	Benzo(a)pyrene	12000	E J
193-39-5	Indeno(1,2,3-cd)pyrene	8000	E J
53-70-3	Dibenzo(a,h)anthracene	3100	J
191-24-2	Benzo(g,h,i)perylene	10000	E

(1) Cannot be separated from Diphenylamine

2/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP265/32.5-33DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS054Matrix: (soil/water) SOILLab Sample ID: 0901189-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N28804.DLevel: (low/med) LOWDate Received: 01/07/09% Moisture: 19.5 Decanted: (Y/N) NDate Extracted: 01/12/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 01/14/09Injection Volume: 2 (μL)Dilution Factor: 200.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	960000	D
91-57-6	2-Methylnaphthalene	1100000	D
208-96-8	Acenaphthylene	410000	D
83-32-9	Acenaphthene	55000	DJ
86-73-7	Fluorene	250000	D
85-01-8	Phenanthrene	740000	D
120-12-7	Anthracene	210000	D
206-44-0	Fluoranthene	180000	D
129-00-0	Pyrene	280000	D
56-55-3	Benzo(a)anthracene	79000	DJ
218-01-9	Chrysene	68000	DJ
205-99-2	Benzo(b)fluoranthene	36000	DJ
207-08-9	Benzo(k)fluoranthene	82000	U
50-32-8	Benzo(a)pyrene	64000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	82000	U
53-70-3	Dibenzo(a,h)anthracene	82000	U
191-24-2	Benzo(g,h,i)perylene	19000	DJ

(1) Cannot be separated from Diphenylamine

2/26/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-266/5-10

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901375-001ASample wt/vol: 5(g/mL) GLab File ID: V\F39835.D

Level: (low/med)

LOWDate Received: 01/13/09

% Moisture: not dec.

4.1Date Analyzed: 01/19/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>8</u> <u>10</u>	<u>U</u>
108-88-3	Toluene	<u>8</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>8</u>	<u>U</u>
1330-20-7	Xylene (total)	<u>8</u>	<u>U</u>

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-266/5-10

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901375-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28828.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: 4.1 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	340	U
91-57-6	2-Methylnaphthalene	340	U
208-96-8	Acenaphthylene	340	U
83-32-9	Acenaphthene	340	U
86-73-7	Fluorene	340	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenzo(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) Cannot be separated from Diphenylamine

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-267/15-18

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901375-002ASample wt/vol: 5(g/mL) GLab File ID: V\F39836.D

Level: (low/med)

LOWDate Received: 01/13/09

% Moisture: not dec.

3.6Date Analyzed: 01/19/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/KG

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	52 100	U
108-88-3	Toluene	52 1	U
100-41-4	Ethylbenzene	52 1	U
1330-20-7	Xylene (total)	52 1	U

2/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-267/15-18

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901375-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28829.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: 3.6 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	2600	
91-57-6	2-Methylnaphthalene	930	
208-96-8	Acenaphthylene	200	J
83-32-9	Acenaphthene	340	U
86-73-7	Fluorene	340	U
85-01-8	Phenanthrene	88	J
120-12-7	Anthracene	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
205-99-2	Benzo(b)fluoranthene	130	J
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	370	
193-39-5	Indeno(1,2,3-cd)pyrene	230	J
53-70-3	Dibenzo(a,h)anthracene	74	J
191-24-2	Benzo(g,h,i)perylene	240	J

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-270/30-31

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901375-003A

Sample wt/vol: 5 (g/mL) G

Lab File ID: V\F39837.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: not dec. 18.6

Date Analyzed: 01/19/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	<u>31</u> <u>61</u>	<u>U</u>
108-88-3	Toluene	<u>31</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>31</u>	<u>U</u>
1330-20-7	Xylene (total)	<u>31</u>	<u>U</u>

2/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-270/30-31

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901375-003BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28831.DLevel: (low/med) LOWDate Received: 01/13/09% Moisture: 18.6 Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/16/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	890	
91-57-6	2-Methylnaphthalene	35000	E
208-96-8	Acenaphthylene	31000	E
83-32-9	Acenaphthene	11000	
86-73-7	Fluorene	72000	E
85-01-8	Phenanthrene	300000	E
120-12-7	Anthracene	74000	E
206-44-0	Fluoranthene	87000	E
129-00-0	Pyrene	140000	E
56-55-3	Benzo(a)anthracene	64000	E
218-01-9	Chrysene	29000	E
205-99-2	Benzo(b)fluoranthene	22000	5
207-08-9	Benzo(k)fluoranthene	8900	5
50-32-8	Benzo(a)pyrene	27000	E
193-39-5	Indeno(1,2,3-cd)pyrene	5400	5
53-70-3	Dibenzo(a,h)anthracene	2600	1
191-24-2	Benzo(g,h,i)perylene	4800	1

(1) Cannot be separated from Diphenylamine

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-270/30-31DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901375-003BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28836.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: 18.6 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/19/09

Injection Volume: 2 (μL)

Dilution Factor: 100.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	81000	U
91-57-6	2-Methylnaphthalene	38000	DJ
208-96-8	Acenaphthylene	38000	DJ
82-32-9	Acenaphthene	81000	U
86-73-7	Fluorene	88000	D
85-01-8	Phenanthrene	380000	D
120-12-7	Anthracene	110000	D
206-44-0	Fluoranthene	110000	D
129-00-0	Pyrene	160000	D
56-55-3	Benzo(a)anthracene	52000	DJ
218-01-9	Chrysene	55000	DJ
205-99-2	Benzo(b)fluoranthene	81000	U
207-08-9	Benzo(k)fluoranthene	81000	U
50-32-8	Benzo(a)pyrene	34000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	81000	U
53-70-3	Dibenzo(a,h)anthracene	81000	U
191-24-2	Benzo(g,h,i)perylene	81000	U

(1) Cannot be separated from Diphenylamine

2/27/09
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-271/33-34.5

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901375-004ASample wt/vol: 5(g/mL) GLab File ID: V\F39839.D

Level: (low/med)

LOWDate Received: 01/13/09

% Moisture: not dec.

12Date Analyzed: 01/19/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	<u>57</u> <u>110</u>	<u>U</u>
108-88-3	Toluene	1500	
100-41-4	Ethylbenzene	2100	
1330-20-7	Xylene (total)	<u>6900</u> <u>21000</u>	<u>E D</u>

2/27/09

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-271/33-34.5DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901375-004ASample wt/vol: 4(g/mL) GLab File ID: A\A63070.D

Level: (low/med)

MEDDate Received: 01/13/09

% Moisture: not dec.

12Date Analyzed: 01/19/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 4.00

Soil Extract Volume: _____

10000 (μL)Soil Aliquot Volume 100 (μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/KG

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	2000 <u>5700</u>	U
108-88-3	Toluene	2200	DJ
100-41-4	Ethylbenzene	3200	DJ
1330-20-7	Xylene (total)	69000	D

2/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-271/33-34.5

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901375-004B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28838.D

Level: (low/med) LOW

Date Received: 01/13/09

% Moisture: 12 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/19/09

Injection Volume: 2 (μL)

Dilution Factor: 10.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	930000	E
91-57-6	2-Methylnaphthalene	1300000	E
208-96-8	Acenaphthylene	460000	E
83-32-9	Acenaphthene	93000	
86-73-7	Fluorene	400000	E
85-01-8	Phenanthrene	1300000	E
120-12-7	Anthracene	350000	E
206-44-0	Fluoranthene	320000	E
129-00-0	Pyrene	510000	E
56-55-3	Benzo(a)anthracene	220000	E
218-01-9	Chrysene	150000	E
205-99-2	Benzo(b)fluoranthene	77000	
207-08-9	Benzo(k)fluoranthene	36000	J
50-32-8	Benzo(a)pyrene	110000	
193-39-5	Indeno(1,2,3-cd)pyrene	22000	
53-70-3	Dibenzo(a,h)anthracene	10000	
191-24-2	Benzo(g,h,i)perylene	21000	

(1) Cannot be separated from Diphenylamine

2/27/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-271/33-34.SDL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901375-004BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N28835.DLevel: (low/med) LOWDate Received: 01/13/09% Moisture: 12 Decanted: (Y/N) NDate Extracted: 01/15/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/19/09Injection Volume: 2 (μL)Dilution Factor: 200.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	1500000	D
91-57-6	2-Methylnaphthalene	1900000	D
208-96-8	Acenaphthylene	710000	D
83-32-9	Acenaphthene	120000	DJ
86-73-7	Fluorene	630000	D
85-01-8	Phenanthrene	1800000	D
120-12-7	Anthracene	460000	D
206-44-0	Fluoranthene	460000	D
129-00-0	Pyrene	660000	D
56-55-3	Benzo(a)anthracene	210000	D
218-01-9	Chrysene	220000	D
205-99-2	Benzo(b)fluoranthene	83000	DJ
207-08-9	Benzo(k)fluoranthene	41000	DJ
50-32-8	Benzo(a)pyrene	140000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	34000	DJ
53-70-3	Dibenzo(a,h)anthracene	150000	U
191-24-2	Benzo(g,h,i)perylene	39000	DJ

(1) Cannot be separated from Diphenylamine

2/27/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-272/24-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901440-001ASample wt/vol: 5(g/mL) GLab File ID: V\F39838.D

Level: (low/med)

LOWDate Received: 01/14/09

% Moisture: not dec.

15.8Date Analyzed: 01/19/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	30 <u>59</u>	U
108-88-3	Toluene	30 <u>1</u>	U
100-41-4	Ethylbenzene	30 <u>1</u>	U
1330-20-7	Xylene (total)	30 <u>1</u>	U

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-272/24-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901440-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28830.D

Level: (low/med) LOW

Date Received: 01/14/09

% Moisture: 15.8 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/16/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	520	J
91-57-6	2-Methylnaphthalene	41000	E
208-96-8	Acenaphthylene	50000	E
83-32-9	Acenaphthene	25000	E
86-73-7	Fluorene	84000	E
85-01-8	Phenanthrene	170000	E
120-12-7	Anthracene	66000	E
206-44-0	Fluoranthene	78000	E
129-00-0	Pyrene	150000	E
56-55-3	Benzo(a)anthracene	57000	E
218-01-9	Chrysene	21000	E
205-99-2	Benzo(b)fluoranthene	23000	E
207-08-9	Benzo(k)fluoranthene	6700	J
50-32-8	Benzo(a)pyrene	30000	E
193-39-5	Indeno(1,2,3-cd)pyrene	6200	J
53-70-3	Dibenzo(a,h)anthracene	2400	J
191-24-2	Benzo(g,h,i)perylene	6100	J

(1) Cannot be separated from Diphenylamine

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-272/24-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901440-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28837.D

Level: (low/med) LOW

Date Received: 01/14/09

% Moisture: 15.8 Decanted: (Y/N) N

Date Extracted: 01/15/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/19/09

Injection Volume: 2 (μL)

Dilution Factor: 50.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	39000	U
91-57-6	2-Methylnaphthalene	48000	D
208-96-8	Acenaphthylene	76000	D
83-32-9	Acenaphthene	29000	DJ
86-73-7	Fluorene	100000	D
85-01-8	Phenanthrene	240000	D
120-12-7	Anthracene	100000	D
206-44-0	Fluoranthene	120000	D
129-00-0	Pyrene	210000	D
56-55-3	Benzo(a)anthracene	56000	D
218-01-9	Chrysene	53000	D
205-99-2	Benzo(b)fluoranthene	28000	DJ
207-08-9	Benzo(k)fluoranthene	39000	U
50-32-8	Benzo(a)pyrene	46000	D
193-39-5	Indeno(1,2,3-cd)pyrene	12000	DJ
53-70-3	Dibenzo(a,h)anthracene	39000	U
191-24-2	Benzo(g,h,i)perylene	15000	DJ

(1) Cannot be separated from Diphenylamine

2/27/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-275/35.5-37

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-003ASample wt/vol: 5(g/mL) GLab File ID: V\F39867.D

Level: (low/med)

LOWDate Received: 01/19/09

% Moisture: not dec.

7.47Date Analyzed: 01/20/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>5</u> <u>11</u>	<u>U</u>
108-88-3	Toluene	<u>5</u> <u>1</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>8</u> <u>1</u>	<u>U</u>
1330-20-7	Xylene (total)	<u>7</u>	<u>J</u>

2/27/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-275/35.5-37

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-003BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28866.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 7.47 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 500 (μ L)Date Analyzed: 01/21/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	360	U
91-57-6	2-Methylnaphthalene	360	U
208-96-8	Acenaphthylene	360	U
83-32-9	Acenaphthene	360	U
86-73-7	Fluorene	360	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenzo(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) Cannot be separated from Diphenylamine

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-277/30-31

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-004ASample wt/vol: 5(g/mL) GLab File ID: V\F39868.D

Level: (low/med)

LOWDate Received: 01/19/09

% Moisture: not dec.

19.7Date Analyzed: 01/20/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>2162</u>	<u>U</u>
108-88-3	Toluene	54	<u>J</u>
100-41-4	Ethylbenzene	43	<u>J</u>
1330-20-7	Xylene (total)	<u>2200</u> 12000	<u>ED</u>

2/27/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-277/30-31DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-004ASample wt/vol: 4(g/mL) GLab File ID: A\A63203.D

Level: (low/med)

MEDDate Received: 01/19/09% Moisture: not dec. 19.7Date Analyzed: 01/27/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

10000 (μL)Soil Aliquot Volume 100 (μL)

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/KG

Q

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	780 11600	U
108-88-3	Toluene	1400	D
100-41-4	Ethylbenzene	760	DJ
1330-20-7	Xylene (total)	22000	D

2/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-277/30-31

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-004B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28867.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 19.7 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/kg) UG/KG	Q
91-20-3	Naphthalene	68000	E
91-57-6	2-Methylnaphthalene	85000	E
208-96-8	Acenaphthylene	28000	E
83-32-9	Acenaphthene	6300	
86-73-7	Fluorene	21000	E
85-01-8	Phenanthrene	63000	E
120-12-7	Anthracene	21000	E
206-44-0	Fluoranthene	18000	E
129-00-0	Pyrene	24000	E
56-55-3	Benzo(a)anthracene	13000	E
218-01-9	Chrysene	8100	E
205-99-2	Benzo(b)fluoranthene	5100	
207-08-9	Benzo(k)fluoranthene	1400	J
50-32-8	Benzo(a)pyrene	6500	
193-39-5	Indeno(1,2,3-cd)pyrene	1100	
53-70-3	Dibenzo(a,h)anthracene	560	
191-24-2	Benzo(g,h,i)perylene	990	

(1) Cannot be separated from Diphenylamine

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-277/30-31DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-004BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28878.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 19.7 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 40.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	100000	D
91-57-6	2-Methylnaphthalene	110000	D
208-96-8	Acenaphthylene	35000	D
83-32-9	Acenaphthene	7900	DJ
86-73-7	Fluorene	28000	D
85-01-8	Phenanthrene	82000	D
120-12-7	Anthracene	23000	D
206-44-0	Fluoranthene	21000	D
129-00-0	Pyrene	30000	D
56-55-3	Benzo(a)anthracene	12000	DJ
218-01-9	Chrysene	12000	DJ
205-99-2	Benzo(b)fluoranthene	16000	U
207-08-9	Benzo(k)fluoranthene	16000	U
50-32-8	Benzo(a)pyrene	6400	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	16000	U
53-70-3	Dibenzo(a,h)anthracene	16000	U
191-24-2	Benzo(g,h,i)perylene	16000	U

(1) Cannot be separated from Diphenylamine

2/27/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-278/28-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-005ASample wt/vol: 5(g/mL) GLab File ID: V\F39869.D

Level: (low/med)

LOWDate Received: 01/19/09% Moisture: not dec. 16.4Date Analyzed: 01/20/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	30	J
108-88-3	Toluene	15000 3800	E D
100-41-4	Ethylbenzene	34000 7900	E I
1330-20-7	Xylene (total)	42000 40000	E +

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-278/28-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-005ASample wt/vol: 4(g/mL) GLab File ID: A\A63214.D

Level: (low/med)

MEDDate Received: 01/19/09

% Moisture: not dec.

16.4Date Analyzed: 01/28/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

10000 (pL)Soil Aliquot Volume 100 (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	7500 <u>15000</u>	U
108-88-3	Toluene	15000	D
100-41-4	Ethylbenzene	34000	D
1330-20-7	Xylene (total)	420000	D

2/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-278/28-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-005BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28873.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 16.4 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 01/21/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	1200000	E
91-57-6	2-Methylnaphthalene	1700000	E
208-96-8	Acenaphthylene	160000	E
83-32-9	Acenaphthene	29000	E
86-73-7	Fluorene	230000	E
85-01-8	Phenanthrene	880000	E
120-12-7	Anthracene	120000	E
206-44-0	Fluoranthene	130000	E
129-00-0	Pyrene	390000	E
56-55-3	Benzo(a)anthracene	120000	E
218-01-9	Chrysene	61000	E
205-99-2	Benzo(b)fluoranthene	48000	E
207-08-9	Benzo(k)fluoranthene	14000	J
50-32-8	Benzo(a)pyrene	58000	E
193-39-5	Indeno(1,2,3-cd)pyrene	12000	J
53-70-3	Dibenzo(a,h)anthracene	5800	J
191-24-2	Benzo(g,h,i)perylene	12000	J

(1) Cannot be separated from Diphenylamine

2/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-278/28-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-005BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28881.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 16.4 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 200.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	1800000		D
91-57-6	2-Methylnaphthalene	1500000		D
208-96-8	Acenaphthylene	460000		D
83-32-9	Acenaphthene	110000		DJ
86-73-7	Fluorene	370000		D
85-01-8	Phenanthrene	1100000		D
120-12-7	Anthracene	320000		D
206-44-0	Fluoranthene	280000		D
129-00-0	Pyrene	380000		D
56-55-3	Benzo(a)anthracene	160000		D
218-01-9	Chrysene	160000		D
205-99-2	Benzo(b)fluoranthene	56000		DJ
207-08-9	Benzo(k)fluoranthene	160000		U
50-32-8	Benzo(a)pyrene	86000		DJ
193-39-5	Indeno(1,2,3-cd)pyrene	160000		U
53-70-3	Dibenzo(a,h)anthracene	160000		U
191-24-2	Benzo(g,h,i)perylene	160000		U

(1) Cannot be separated from Diphenylamine

2/27/5
2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-278/30-32

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-006ASample wt/vol: 5(g/mL) GLab File ID: V\F39877.D

Level: (low/med)

LOWDate Received: 01/19/09% Moisture: not dec. 15.4Date Analyzed: 01/20/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	8 12	<u>U</u>
108-88-3	Toluene	8 1	<u>U</u>
100-41-4	Ethylbenzene	8 ↓	<u>U</u>
1330-20-7	Xylene (total)	10	<u>J</u>

2/27/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-278/30-32

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-006BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28868.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 15.4 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 500 (μ L)Date Analyzed: 01/21/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

(μ g/L or μ g/Kg) UG/KG Q

CAS NO.	COMPOUND		
91-20-3	Naphthalene	590	
91-57-6	2-Methylnaphthalene	450	
208-96-8	Acenaphthylene	200	J
83-32-9	Acenaphthene	390	U
86-73-7	Fluorene	210	J
85-01-8	Phenanthrene	740	
120-12-7	Anthracene	190	J
206-44-0	Fluoranthene	190	J
129-00-0	Pyrene	270	J
56-55-3	Benzo(a)anthracene	91	J
218-01-9	Chrysene	100	J
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenzo(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-278/38-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS056

Matrix: (soil/water)

SOILLab Sample ID: 0901511-007ASample wt/vol: 5(g/mL) GLab File ID: V\F39874.D

Level: (low/med)

LOWDate Received: 01/19/09

% Moisture: not dec.

14.9Date Analyzed: 01/20/09GC Column: DB-624ID: 0.18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	2	J
108-88-3	Toluene	8 12	U
100-41-4	Ethylbenzene	8 12	U
1330-20-7	Xylene (total)	4	J

2/12/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-278/38-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-007BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28869.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 14.9 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 500 (μ L)Date Analyzed: 01/21/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg)	UG/KG	Q
91-20-3	Naphthalene	390		U
91-57-6	2-Methylnaphthalene	390		U
208-96-8	Acenaphthylene	390		U
83-32-9	Acenaphthene	390		U
86-73-7	Fluorene	390		U
85-01-8	Phenanthrene	390		U
120-12-7	Anthracene	390		U
206-44-0	Fluoranthene	390		U
129-00-0	Pyrene	390		U
56-55-3	Benzo(a)anthracene	390		U
218-01-9	Chrysene	390		U
205-99-2	Benzo(b)fluoranthene	390		U
207-08-9	Benzo(k)fluoranthene	390		U
50-32-8	Benzo(a)pyrene	390		U
193-39-5	Indeno(1,2,3-cd)pyrene	390		U
53-70-3	Dibenzo(a,h)anthracene	390		U
191-24-2	Benzo(g,h,i)perylene	390		U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-279/29-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOIL

Lab Sample ID: 0901511-008A

Sample wt/vol: 5

(g/mL) G

Lab File ID: V\F39876.D

Level: (low/med)

LOW

Date Received: 01/19/09

% Moisture: not dec.

17.7

Date Analyzed: 01/20/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	5	J
108-88-3	Toluene	2	J
100-41-4	Ethylbenzene	5 12	U
1330-20-7	Xylene (total)	5	J

2/2+69
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-279/29-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Matrix: (soil/water) SOILLab Sample ID: 0901511-008BSample wt/vol: 15 (g/mL) GLab File ID: 9\N28874.DLevel: (low/med) LOWDate Received: 01/19/09% Moisture: 17.7 Decanted: (Y/N) NDate Extracted: 01/19/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 01/21/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/KG	Q
91-20-3	Naphthalene	510	J
91-57-6	2-Methylnaphthalene	2300	
208-96-8	Acenaphthylene	11000	
83-32-9	Acenaphthene	9800	
86-23-7	Fluorene	23000	E
85-01-8	Phenanthrene	29000	E
120-12-7	Anthracene	17000	E
206-44-0	Fluoranthene	31000	E
129-00-0	Pyrene	66000	E
56-55-3	Benzo(a)anthracene	28000	E
218-01-9	Chrysene	22000	E
205-99-2	Benzo(b)fluoranthene	11000	J
207-08-9	Benzo(k)fluoranthene	4800	
50-32-8	Benzo(a)pyrene	10000	
193-39-5	Indeno(1,2,3-cd)pyrene	2000	
53-70-3	Dibenzo(a,h)anthracene	1200	
191-24-2	Benzo(g,h,i)perylene	1900	

(1) Cannot be separated from Diphenylamine

2/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-279/29-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-008BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28877.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 17.7 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 10.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	8000	U
91-57-6	2-Methylnaphthalene	8000	U
208-96-8	Acenaphthylene	11000	D
83-32-5	Acenaphthene	11000	D
86-73-7	Fluorene	28000	D
85-01-8	Phenanthrene	35000	D
120-12-7	Anthracene	20000	D
206-44-0	Fluoranthene	46000	D
129-00-0	Pyrene	64000	D
56-55-3	Benzo(a)anthracene	25000	D
218-01-9	Chrysene	26000	D
205-99-2	Benzo(b)fluoranthene	9000	D
207-08-9	Benzo(k)fluoranthene	3900	DJ
50-32-8	Benzo(a)pyrene	9600	D
193-39-5	Indeno(1,2,3-cd)pyrene	3200	DJ
53-70-3	Dibenzo(a,h)anthracene	1700	DJ
191-24-2	Benzo(g,h,i)perylene	3200	DJ

(1) Cannot be separated from Diphenylamine

2/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-280/27.5-29

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water)

SOIL

Lab Sample ID: 0901511-009A

Sample wt/vol: 5

(g/mL) G

Lab File ID: V\F39873.D

Level: (low/med)

LOW

Date Received: 01/19/09

% Moisture: not dec.

20.7

Date Analyzed: 01/20/09

GC Column: DB-624

ID: 0.18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>8</u> <u>13</u>	<u>U</u>
108-88-3	Toluene	<u>8</u> <u>1</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>8</u> <u>1</u>	<u>U</u>
1330-20-7	Xylene (total)	<u>4</u>	<u>J</u>

2/27/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-280/27.5-29

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

Matrix: (soil/water) SOIL

Lab Sample ID: 0901511-009B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N28870.D

Level: (low/med) LOW

Date Received: 01/19/09

% Moisture: 20.7 Decanted: (Y/N) N

Date Extracted: 01/19/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 01/21/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	170	J
91-57-6	2-Methylnaphthalene	390	J
208-96-8	Acenaphthylene	350	J
83-32-9	Acenaphthene	180	J
86-73-7	Fluorene	710	
85-01-8	Phenanthrene	2500	
120-12-7	Anthracene	780	
206-44-0	Fluoranthene	790	
129-00-0	Pyrene	1100	
56-55-3	Benzo(a)anthracene	460	
218-01-9	Chrysene	480	
205-99-2	Benzo(b)fluoranthene	150	J
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	250	J
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenzo(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

(1) Cannot be separated from Diphenylamine

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-281/20-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOILLab Sample ID: 0901792-001ASample wt/vol: 5(g/mL) GLab File ID: 09\G0064.D

Level: (low/med)

LOWDate Received: 01/27/09

% Moisture: not dec.

6.2Date Analyzed: 01/30/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	22 54	U
108-88-3	Toluene	22 54	U
100-41-4	Ethylbenzene	4100 1800	E O
1330-20-7	Xylene (total)	1300	

3/4/09
2

KEY-URS060 S15

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-281/20-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOILLab Sample ID: 0901792-001ADLSample wt/vol: 4(g/mL) GLab File ID: A\A63275.D

Level: (low/med)

MEDDate Received: 01/27/09

% Moisture: not dec.

6.2Date Analyzed: 02/01/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00Soil Extract Volume: 10000

(pL)

Soil Aliquot Volume 100 (pL)

CONCENTRATION UNITS:

(pg/L or pg/Kg) UG/KG Q

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	870 1300	U
108-88-3	Toluene	870 1300	U
100-41-4	Ethylbenzene	4100	D
1330-20-7	Xylene (total)	3000	D

3/4/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-281/20-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060Matrix: (soil/water) SOILLab Sample ID: 0901792-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N29009.DLevel: (low/med) LOWDate Received: 01/27/09% Moisture: 6.2 Decanted: (Y/N) NDate Extracted: 02/02/09Concentrated Extract Volume: 500 (μ L)Date Analyzed: 02/03/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	14000	E
91-57-6	2-Methylnaphthalene	15000	E
208-96-8	Acenaphthylene	1200	
83-32-9	Acenaphthene	9900	E
86-73-7	Fluorene	8900	E
85-01-8	Phenanthrene	29000	E
120-12-7	Anthracene	10000	E
206-44-0	Fluoranthene	9000	E
129-00-0	Pyrene	7700	E
56-55-3	Benzo(a)anthracene	4300	
218-01-9	Chrysene	3600	
205-99-2	Benzo(b)fluoranthene	1700	J
207-08-9	Benzo(k)fluoranthene	720	
50-32-8	Benzo(a)pyrene	2200	
193-39-5	Indeno(1,2,3-cd)pyrene	270	J
53-70-3	Dibenzo(a,h)anthracene	120	J
191-24-2	Benzo(g,h,i)perylene	310	J

(1) Cannot be separated from Diphenylamine

3/4/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/20-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water) SOIL

Lab Sample ID: 0901792-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N29023.D

Level: (low/med) LOW

Date Received: 01/27/09

% Moisture: 6.2 Decanted: (Y/N) N

Date Extracted: 02/02/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 02/03/09

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	16000	D
91-57-6	2-Methylnaphthalene	15000	D
208-96-8	Acenaphthylene	1600	DJ
83-32-9	Acenaphthene	12000	D
86-73-7	Fluorene	10000	D
85-01-8	Phenanthrene	34000	D
120-12-7	Anthracene	9000	D
206-44-0	Fluoranthene	7500	D
129-00-0	Pyrene	12000	D
56-55-3	Benzo(a)anthracene	3500	DJ
218-01-9	Chrysene	3500	DJ
205-99-2	Benzo(b)fluoranthene	7000	U
207-08-9	Benzo(k)fluoranthene	7000	U
50-32-8	Benzo(a)pyrene	1900	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	7000	U
53-70-3	Dibenzo(a,h)anthracene	7000	U
191-24-2	Benzo(g,h,i)perylene	7000	U

(1) Cannot be separated from Diphenylamine

3/4/5
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOIL

Lab Sample ID:

0901792-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID:

09\G0065.D

Level: (low/med)

LOW

Date Received:

01/27/09

% Moisture: not dec.

12.7

Date Analyzed:

01/30/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	25 58	U
108-88-3	Toluene	25 58	U
100-41-4	Ethylbenzene	3900 2100	ED
1330-20-7	Xylene (total)	3300	

3/3/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOIL

Lab Sample ID:

0901792-002ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID:

A\A63276.D

Level: (low/med)

MED

Date Received:

01/27/09

% Moisture: not dec.

12.7

Date Analyzed:

02/01/09

GC Column: ZB-624

ID: 18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

10000 (µL)

Soil Aliquot Volume

100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	720 1400	U
108-88-3	Toluene	720 1400	U
100-41-4	Ethylbenzene	3900	D
1330-20-7	Xylene (total)	3900	D

3/3/09
a

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water) SOIL

Lab Sample ID: 0901792-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N29010.D

Level: (low/med) LOW

Date Received: 01/27/09

% Moisture: 12.7 Decanted: (Y/N) N

Date Extracted: 02/02/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 02/03/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	17000	E
91-57-6	2-Methylnaphthalene	29000	E
208-96-8	Acenaphthylene	3900	
82-32-9	Acenaphthene	14000	E
86-73-7	Fluorene	17000	E
85-01-8	Phenanthrene	58000	E
120-12-7	Anthracene	22000	E
206-44-0	Fluoranthene	21000	E
129-00-0	Pyrene	15000	E
56-55-3	Benzo(a)anthracene	8000	E
218-01-9	Chrysene	6400	E
205-99-2	Benzo(b)fluoranthene	3600	J
207-08-9	Benzo(k)fluoranthene	1100	
50-32-8	Benzo(a)pyrene	4500	
193-39-5	Indeno(1,2,3-cd)pyrene	480	
53-70-3	Dibenzo(a,h)anthracene	210	J
191-24-2	Benzo(g,h,i)perylene	470	

(1) Cannot be separated from Diphenylamine

3/4/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060Matrix: (soil/water) SOILLab Sample ID: 0901792-002BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N29024.DLevel: (low/med) LOWDate Received: 01/27/09% Moisture: 12.7 Decanted: (Y/N) NDate Extracted: 02/02/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 02/03/09Injection Volume: 2 (μL)Dilution Factor: 40.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	21000	D
91-57-6	2-Methylnaphthalene	31000	D
208-96-8	Acenaphthylene	4900	DJ
83-32-9	Acenaphthene	18000	D
86-73-7	Fluorene	20000	D
85-01-8	Phenanthrene	72000	D
120-12-7	Anthracene	18000	D
206-44-0	Fluoranthene	16000	D
129-00-0	Pyrene	22000	D
56-55-3	Benzo (a) anthracene	7100	DJ
218-01-9	Chrysene	6400	DJ
205-99-2	Benzo (b) fluoranthene	15000	U
207-08-9	Benzo (k) fluoranthene	15000	U
50-32-8	Benzo (a) pyrene	3800	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	15000	U
53-70-3	Dibenzo (a,h) anthracene	15000	U
191-24-2	Benzo (g,h,i) perylene	15000	U

(1) Cannot be separated from Diphenylamine

3/4/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOIL

Lab Sample ID:

0901792-003A

Sample wt/vol: 5

(g/mL) G

Lab File ID:

09\G0074.D

Level: (low/med)

LOW

Date Received:

01/27/09

% Moisture: not dec.

15.1

Date Analyzed:

02/03/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>8</u> <u>12</u>	<u>U</u>
108-88-3	Toluene	<u>8</u> <u>12</u>	<u>U</u>
100-41-4	Ethylbenzene	<u>14</u>	<u>J</u>
1330-20-7	Xylene (total)	<u>14</u>	<u>J</u>

3/3/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-281/30-35RE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOILLab Sample ID: 0901792-003ARESample wt/vol: 5(g/mL) GLab File ID: 09\G0080.D

Level: (low/med)

LOWDate Received: 01/27/09

% Moisture: not dec.

15.1Date Analyzed: 02/04/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____

(pL)

CONCENTRATION UNITS:

(µg/L or µg/Kg) UG/KG Q

CAS NO.	COMPOUND		
71-43-2	Benzene	<u>812</u>	U
108-88-3	Toluene	<u>612</u>	U
100-41-4	Ethylbenzene	<u>19</u>	
1330-20-7	Xylene (total)	<u>24</u>	

3/36/9
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water) SOIL

Lab Sample ID: 0901792-003B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N29011.D

Level: (low/med) LOW

Date Received: 01/27/09

% Moisture: 15.1 Decanted: (Y/N) N

Date Extracted: 02/02/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 02/03/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	7000	E	
91-57-6	2-Methylnaphthalene	18000	E	
208-96-8	Acenaphthylene	1700		
83-32-9	Acenaphthene	6500	E	
86-73-7	Fluorene	7200	E	
85-01-8	Phenanthrene	27000	E	
120-12-7	Anthracene	10000	E	
206-44-0	Fluoranthene	9200	E	
129-00-0	Pyrene	12000	E	
56-55-3	Benzo (a) anthracene	5000		
218-01-9	Chrysene	4400		
205-99-2	Benzo (b) fluoranthene	1800	J	
207-08-9	Benzo (k) fluoranthene	890		
50-32-8	Benzo (a) pyrene	2800		
193-39-5	Indeno (1,2,3-cd) pyrene	380	J	
53-70-3	Dibenzo (a,h) anthracene	150	J	
191-24-2	Benzo (g,h,i) perylene	380	J	

(1) Cannot be separated from Diphenylamine

3/4/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-281/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water) SOIL

Lab Sample ID: 0901792-003BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N29025.D

Level: (low/med) LOW

Date Received: 01/27/09

% Moisture: 15.1 Decanted: (Y/N) N

Date Extracted: 02/02/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 02/03/09

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	6900	DJ
91-57-6	2-Methylnaphthalene	16000	D
208-96-8	Acenaphthylene	1900	DJ
83-32-9	Acenaphthene	7000	DJ
86-73-7	Fluorene	7400	DJ
85-01-8	Phenanthrene	48000	D
120-12-7	Anthracene	12000	D
206-44-0	Fluoranthene	10000	D
129-00-0	Pyrene	15000	D
56-55-3	Benzo(a)anthracene	1400	DJ
218-01-9	Chrysene	4100	DJ
205-99-2	Benzo(b)fluoranthene	7800	U
207-08-9	Benzo(k)fluoranthene	7800	U
50-32-8	Benzo(a)pyrene	2200	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	7800	U
53-70-3	Dibenzo(a,h)anthracene	7800	U
191-24-2	Benzo(g,h,i)perylene	7800	U

(1) Cannot be separated from Diphenylamine

3/4/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-283/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060

Matrix: (soil/water)

SOIL

Lab Sample ID: 0901792-004A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G0075.D

Level: (low/med)

LOW

Date Received: 01/27/09

% Moisture: not dec.

15.6

Date Analyzed: 02/03/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	8 12	U
108-88-3	Toluene	8 ↓	U
100-41-4	Ethylbenzene	8 ↓	U
1330-20-7	Xylene (total)	5	J

3/4/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-283/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060Matrix: (soil/water) SOILLab Sample ID: 0901792-004BSample wt/vol: 15 (g/mL) GLab File ID: 9\N29012.DLevel: (low/med) LOWDate Received: 01/27/09% Moisture: 15.6 Decanted: (Y/N) NDate Extracted: 02/02/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 02/03/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	780	U
91-57-6	2-Methylnaphthalene	3300	
208-96-8	Acenaphthylene	11000	
83-32-9	Acenaphthene	4800	
86-73-7	Fluorene	38000	E
85-01-8	Phenanthrene	69000	E
120-12-7	Anthracene	31000	E
206-44-0	Fluoranthene	30000	E
129-00-0	Pyrene	44000	E
56-55-3	Benzo(a)anthracene	22000	E
218-01-9	Chrysene	15000	E
205-99-2	Benzo(b)fluoranthene	12000	J
207-08-9	Benzo(k)fluoranthene	4200	
50-32-8	Benzo(a)pyrene	16000 20000	E-DJ
193-39-5	Indeno(1,2,3-cd)pyrene	2300	
53-70-3	Dibenzo(a,h)anthracene	940	
191-24-2	Benzo(g,h,i)perylene	2800	

(1) Cannot be separated from Diphenylamine

3/4/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-283/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060Matrix: (soil/water) SOILLab Sample ID: 0901792-004BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N29040.DLevel: (low/med) LOWDate Received: 01/27/09% Moisture: 15.6 Decanted: (Y/N) NDate Extracted: 02/02/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 02/04/09Injection Volume: 2 (μL)Dilution Factor: 40.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	31000	U	U
91-57-6	2-Methylnaphthalene	31000	U	U
208-96-8	Acenaphthylene	14000	DJ	DJ
83-32-9	Acenaphthene	7600	DJ	DJ
86-73-7	Fluorene	51000	D	D
85-01-8	Phenanthrene	190000	D	D
120-12-7	Anthracene	59000	D	D
206-44-0	Fluoranthene	54000	D	D
129-00-0	Pyrene	97000	D	D
56-55-3	Benzo(a)anthracene	23000	DJ	DJ
218-01-9	Chrysene	19000	DJ	DJ
205-99-2	Benzo(b)fluoranthene	31000	U	U
207-08-9	Benzo(k)fluoranthene	31000	U	U
50-32-8	Benzo(a)pyrene	16000	DJ	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	31000	U	U
53-70-3	Dibenzo(a,h)anthracene	31000	U	U
192-24-2	Benzo(g,h,i)perylene	31000	U	U

(1) Cannot be separated from Diphenylamine

3/4/09
a

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-295 25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067

Matrix: (soil/water)

SOIL

Lab Sample ID:

0907601-001A

Sample wt/vol:

5(g/mL) G

Lab File ID:

09\G2236.D

Level: (low/med)

LOW

Date Received:

07/07/09

% Moisture: not dec.

11.3

Date Analyzed:

07/18/09GC Column: Rtx-624ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume:

(µL)

Soil Aliquot Volume

(µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	28	U
108-88-3	Toluene	110	
100-41-4	Ethylbenzene	15000 5900	EDJ
1330-20-7	Xylene (total)	21000 8500	EDJ

8/11/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-295 25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-001ADLSample wt/vol: 4 (g/mL) GLab File ID: A\A65682.DLevel: (low/med) MEDDate Received: 07/07/09% Moisture: not dec. 11.3Date Analyzed: 07/15/09GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00Soil Extract Volume: 10000 (μL)Soil Aliquot Volume 100 (μL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(pg/L or μg/Kg)	UG/KG	
71-43-2	Benzene	700		U
108-88-3	Toluene	700		U
100-41-4	Ethylbenzene	15000		D J
1330-20-7	Xylene (total)	21000		D J

8/11/09
2

KEY-URS067 S18

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

295 (25-30)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C47898.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 11.3 Decanted: (Y/N) NDate Extracted: 07/09/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/11/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: 8.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	150000	E
91-57-6	2-Methylnaphthalene	220000	E
208-96-8	Acenaphthylene	18000	E
83-32-9	Acenaphthene	65000	E
86-73-7	Fluorene	16000	E
85-01-8	Phenanthrene	310000	E
120-12-7	Anthracene	88000	E
206-44-0	Fluoranthene	82000	E
129-00-0	Pyrene	60000	E
56-55-3	Benzo(a)anthracene	21000	E
218-01-9	Chrysene	18000	E
205-99-2	Benzo(b)fluoranthene	9800	J
207-08-9	Benzo(k)fluoranthene	5600	J
50-32-8	Benzo(a)pyrene	13000	E
193-39-5	Indeno(1,2,3-cd)pyrene	1400	J
53-70-3	Dibenzo(a,h)anthracene	990	
191-24-2	Benzo(g,h,i)perylene	1500	↓

(1) Cannot be separated from Diphenylamine

8/11/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

295 (25-30) DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-001BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C47913.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 11.3 Decanted: (Y/N) NDate Extracted: 07/09/09Concentrated Extract Volume: 1000 (µL)Date Analyzed: 07/13/09Injection Volume: 2 (µL)Dilution Factor: 100.00GPC Cleanup: (Y/N) N pH: 8.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
91-20-3	Naphthalene	200000	D
91-57-6	2-Methylnaphthalene	270000	D
208-96-8	Acenaphthylene	19000	DJ
83-32-9	Acenaphthene	84000	D
86-73-7	Fluorene	53000	D
85-01-8	Phenanthrene	170000	D
120-12-7	Anthracene	46000	D
206-44-0	Fluoranthene	47000	D
129-00-0	Pyrene	66000	D
56-55-3	Benzo(a)anthracene	25000	DJ
218-01-9	Chrysene	25000	DJ
205-99-2	Benzo(b)fluoranthene	37000	U
207-08-9	Benzo(k)fluoranthene	37000	U
50-32-8	Benzo(a)pyrene	16000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	37000	U
53-70-3	Dibenzo(a,h)anthracene	37000	U
191-24-2	Benzo(g,h,i)perylene	37000	U

(1) Cannot be separated from Diphenylamine

8/11/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-295 25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067

Matrix: (soil/water) SOIL

Lab Sample ID: 0907601-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\B22997.D

Level: (low/med) LOW

Date Received: 07/07/09

% Moisture: 11.3 Decanted: (Y/N) N

Date Extracted: 07/10/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/11/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.0

Extraction: (Type) PFEH

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	mg/Kg	Q
	Alkylate 6	8	U	
	DCL 100	8	U	
	DCL 45	8	U	
	DP 100	8	U	
	Fuel Oil 2	11000 2100	DEF	JN
	Diala A	8	U	
	Fuel Oil 4	8	U	
	Fuel Oil 6	8	U	
	Gasoline	8	U	
	High Viscosity Polybutene	8	U	
	HYVOLT I	8	U	
	HYVOLT II	8	U	
	JP4 (Aviation Fuel)	8	U	
8008-20-6	Kerosene	8	U	
	Low Viscosity Polybutene	8	U	
	Motor Oil	8	U	
	Petroleum Base Transformer Oil	8	U	
	DiChevrol Fluid 100 Cable Oil	8	U	
	Sun 4 Cable Oil	8	U	
	DiChevrol Fluid 500 Cable Oil	8	U	
	Sun 6 Cable Oil	8	U	
	Diesel Fuel Oil	8	U	
	Total Petroleum Hydrocarbons	11000 2100	ED	
	Silicone Base Transformer Oil	8	U	
	Univolt 60 Transformer Oil	8	U	

(1) Cannot be separated from Diphenylamine

8/11/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-295 25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-001BDLSample wt/vol: 15 (g/mL) GLab File ID: A\B23000.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 11.3 Decanted: (Y/N) NDate Extracted: 07/10/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 07/11/09Injection Volume: 2 (μ L)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: 8.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) mg/Kg Q

	Alkylate 6	380	U
	DCL 100	380	U
	DCL 45	380	U
	DF 100	380	U
	Fuel Oil 2	11000	DX
	Diala A	380	U
	Fuel Oil 4	380	U
	Fuel Oil 6	380	U
	Gasoline	380	U
	High Viscosity Polybutene	380	U
	HYVOLT I	380	U
	HYVOLT II	380	U
	JP4 (Aviation Fuel)	380	U
8008-20-6	Kerosene	380	U
	Low Viscosity Polybutene	380	U
	Motor Oil	380	U
	Petroleum Base Transformer Oil	380	U
	DiChevrol Fluid 100 Cable Oil	380	U
	Sun 4 Cable Oil	380	U
	DiChevrol Fluid 500 Cable Oil	380	U
	Sun 6 Cable Oil	380	U
	Diesel Fuel Oil	380	U
	Total Petroleum Hydrocarbons	11000	D
	Silicone Base Transformer Oil	380	U
	Univolt 60 Transformer Oil	380	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-296 30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067

Matrix: (soil/water)

SOIL

Lab Sample ID:

0907601-002A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

09\G2192.D

Level: (low/med)

LOW

Date Received:

07/07/09

% Moisture: not dec.

16

Date Analyzed:

07/09/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

_____ (pL)

Soil Aliquot Volume

_____ (pL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		Q
		(pg/L or pg/Kg)	UG/KG	
71-43-2	Benzene	6		U
108-88-3	Toluene	5		J
100-41-4	Ethylbenzene	210		J
1330-20-7	Xylene (total)	2500	980	J DS

8/11/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-296 30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067

Matrix: (soil/water)

SOIL

Lab Sample ID:

0907601-002ADL

Sample wt/vol: 4

(g/mL) g

Lab File ID:

A\A65683.D

Level: (low/med)

MED

Date Received:

07/07/09

% Moisture: not dec.

16

Date Analyzed:

07/15/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

10000

(μ L)

Soil Aliquot Volume

100 (μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:		
		(μ g/L or μ g/Kg)	UG/KG	Q
71-43-2	Benzene	740		U
108-88-3	Toluene	740		U
100-41-4	Ethylbenzene	380		D/S
1330-20-7	Xylene (total)	2500		D J

8/11/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

296 (30-35)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-002BSample wt/vol: 15 (g/mL) GLab File ID: A\C47897.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 16 Decanted: (Y/N) NDate Extracted: 07/09/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/11/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	<u>9100</u> 9400	<u>ED</u>
91-57-6	2-Methylnaphthalene	<u>26000</u> 20000	<u>ED</u>
208-96-8	Acenaphthylene	710	
83-32-9	Acenaphthene	970	
86-73-7	Fluorene	1600	
85-01-8	Phenanthrene	3500	
120-12-7	Anthracene	360	<u>J</u>
206-44-0	Fluoranthene	140	<u>J</u>
129-00-0	Pyrene	470	
56-55-3	Benzo(a)anthracene	390	<u>U</u>
218-01-9	Chrysene	390	<u>U</u>
205-99-2	Benzo(b)fluoranthene	390	<u>U</u>
207-08-9	Benzo(k)fluoranthene	390	<u>U</u>
50-32-8	Benzo(a)pyrene	390	<u>U</u>
193-39-5	Indeno(1,2,3-cd)pyrene	390	<u>U</u>
53-70-3	Dibenzo(a,h)anthracene	390	<u>U</u>
191-24-2	Benzo(g,h,i)perylene	390	<u>U</u>

(1) Cannot be separated from Diphenylamine

8/11/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

296 (30-35) DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-002BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C47896.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 16 Decanted: (Y/N) NDate Extracted: 07/09/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/11/09Injection Volume: 2 (μL)Dilution Factor: 5.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	9100	D
91-57-6	2-Methylnaphthalene	26000	D
208-96-8	Acenaphthylene	870	DJ
83-32-9	Acenaphthene	980	DJ
86-73-7	Fluorene	1600	DJ
85-01-8	Phenanthrene	3300	D
120-12-7	Anthracene	430	DJ
206-44-0	Fluoranthene	2000	U
129-00-0	Pyrene	2000	U
56-55-3	Benzo (a) anthracene	2000	U
218-01-9	Chrysene	2000	U
205-99-2	Benzo (b) fluoranthene	2000	U
207-08-9	Benzo (k) fluoranthene	2000	U
50-32-8	Benzo (a) pyrene	2000	U
193-39-5	Indeno (1,2,3-cd) pyrene	2000	U
53-70-3	Dibenzo (a,h) anthracene	2000	U
191-24-2	Benzo (g,h,i) perylene	2000	U

(1) Cannot be separated from Diphenylamine

8/11/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-296 30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-002BSample wt/vol: 15 (g/mL) GLab File ID: A\B22996.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 16 Decanted: (Y/N) NDate Extracted: 07/10/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/11/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) mg/Kg Q

	Alkylate 6	8	U
	DCL 100	8	U
	DCL 45	8	U
	DF 100	8	U
	Fuel Oil 2	2700 2000	DN
	Diala A	8	U
	Fuel Oil 4	8	U
	Fuel Oil 6	8	U
	Gasoline	8	U
	High Viscosity Polybutene	8	U
	HYVOLT I	8	U
	HYVOLT II	8	U
	JP4 (Aviation Fuel)	8	U
8008-20-6	Kerosene	8	U
	Low Viscosity Polybutene	8	U
	Motor Oil	8	U
	Petroleum Base Transformer Oil	8	U
	DiChevrol Fluid 100 Cable Oil	8	U
	Sun 4 Cable Oil	8	U
	DiChevrol Fluid 500 Cable Oil	8	U
	Sun 6 Cable Oil	8	U
	Diesel Fuel Oil	8	U
	Total Petroleum Hydrocarbons	2700 2000	ED
	Silicone Base Transformer Oil	8	U
	Univolt 60 Transformer Oil	8	U

(1) Cannot be separated from Diphenylamine

8/11/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-296 30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Matrix: (soil/water) SOILLab Sample ID: 0907601-002BDLSample wt/vol: 15 (g/mL) GLab File ID: A\B23001.DLevel: (low/med) LOWDate Received: 07/07/09% Moisture: 16 Decanted: (Y/N) NDate Extracted: 07/10/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/11/09Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	mg/Kg	Q
	Alkylate 6	160		U
	DCL 100	160		U
	DCL 45	160		U
	DF 100	160		U
	Fuel Oil 2	2700		DX/32
	Diala A	160		U
	Fuel Oil 4	160		U
	Fuel Oil 6	160		U
	Gasoline	160		U
	High Viscosity Polybutene	160		U
	HYVOLT I	160		U
	HYVOLT II	160		U
	JP4 (Aviation Fuel)	160		U
8008-20-6	Kerosene	160		U
	Low Viscosity Polybutene	160		U
	Motor Oil	160		U
	Petroleum Base Transformer Oil	160		U
	DiChevrol Fluid 100 Cable Oil	160		U
	Sun 4 Cable Oil	160		U
	DiChevrol Fluid 500 Cable Oil	160		U
	Sun 6 Cable Oil	160		U
	Diesel Fuel Oil	160		U
	Total Petroleum Hydrocarbons	2700		D
	Silicone Base Transformer Oil	160		U
	Univolt 60 Transformer Oil	160		U

(1) Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-298/31-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOILLab Sample ID: 0908257-001ASample wt/vol: 5(g/mL) GLab File ID: 09\G2253.D

Level: (low/med)

LOWDate Received: 07/23/09

% Moisture: not dec.

14Date Analyzed: 07/28/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 5.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(pg/L or pg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	170	
108-88-3	Toluene	1400	E
100-41-4	Ethylbenzene	12000	E
1330-20-7	Xylene (total)	18000	E

8/26/09
2

KEY-URS070 S17

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-298/31-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-001ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID: A\A65872.D

Level: (low/med)

MED

Date Received: 07/23/09

% Moisture: not dec.

Date Analyzed: 08/03/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: 10000

(μ L)

Soil Aliquot Volume 100 (μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	6200	0
108-88-3	Toluene	1500	D✓
100-41-4	Ethylbenzene	38000	D
1330-20-7	Xylene (total)	59000	D

8/21/09
J
↓

KEY-URS070 S18

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

298/31-34

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48134.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 14 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/28/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	300000	E
91-57-6	2-Methylnaphthalene	320000	E
208-96-8	Acenaphthylene	71000	E
83-32-9	Acenaphthene	42000	E
86-73-7	Fluorene	94000	E
85-01-8	Phenanthrene	160000	E
120-12-7	Anthracene	40000	E
206-44-0	Fluoranthene	45000	E
129-00-0	Pyrene	59000	E
56-55-3	Benzo (a) anthracene	29000	E
218-01-9	Chrysene	20000	E
205-99-2	Benzo (b) fluoranthene	16000	E J
207-08-9	Benzo (k) fluoranthene	10000	E
50-32-8	Benzo (a) pyrene	20000	E
193-39-5	Indeno (1,2,3-cd) pyrene	2700	E J
53-70-3	Dibenzo (a,h) anthracene	1600	E J
191-24-2	Benzo (g,h,i) perylene	2800	E J

(1) Cannot be separated from Diphenylamine

8/26/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

298/31-34DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-001BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C48140.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 14 Decanted: (Y/N) NDate Extracted: 07/23/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/29/09Injection Volume: 2 (μL)Dilution Factor: 100.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	490000	D
91-57-6	2-Methylnaphthalene	370000	D
208-96-8	Acenaphthylene	70000	D
83-32-9	Acenaphthene	41000	D
86-73-7	Fluorene	69000	D
85-01-8	Phenanthrene	210000	D
120-12-7	Anthracene	57000	D
206-44-0	Fluoranthene	69000	D
129-00-0	Pyrene	110000	D
56-55-3	Benzo(a)anthracene	41000	D
218-01-9	Chrysene	38000	D
205-99-2	Benzo(b)fluoranthene	38000	U
207-08-9	Benzo(k)fluoranthene	17000	DJ
50-32-8	Benzo(a)pyrene	26000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	38000	U
53-70-3	Dibenzo(a,h)anthracene	38000	U
191-24-2	Benzo(g,h,i)perylene	7800	DJ

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-299/23-25

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS070

Matrix: (soil/water) SOIL Lab Sample ID: 0908257-002A

Sample wt/vol: 5 (g/mL) G Lab File ID: 09\G2254.D

Level: (low/med) LOW Date Received: 07/23/09

% Moisture: not dec. 15.2 Date Analyzed: 07/28/09

GC Column: Rtx-624 ID: .18 (mm) Dilution Factor: 5.00

Soil Extract Volume: _____ (µL) Soil Aliquot Volume _____ (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	59	U
108-88-3	Toluene	120	
100-41-4	Ethylbenzene	400	
1330-20-7	Xylene (total)	2600	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

299/23-25

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48135.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 15.2 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/28/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	65000 47000	ED
91-57-6	2-Methylnaphthalene	32000 24000	ED
208-96-8	Acenaphthylene	4500	
83-32-9	Acenaphthene	860	
86-73-7	Fluorene	2800	
85-01-8	Phenanthrene	12000 8400	ED
120-12-7	Anthracene	2600	
206-44-0	Fluoranthene	2900	
129-00-0	Pyrene	4700	
56-55-3	Benzo (a) anthracene	1800	
218-01-9	Chrysene	1700	
205-99-2	Benzo (b) fluoranthene	620	
207-08-9	Benzo (k) fluoranthene	690	
50-32-8	Benzo (a) pyrene	1200	
193-39-5	Indeno (1,2,3-cd) pyrene	220	J
53-70-3	Dibenzo (a,h) anthracene	140	J
191-24-2	Benzo (g,h,i) perylene	260	J

(1) Cannot be separated from Diphenylamine

8/27/09
r

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

299/23-25DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-002BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48141.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 15.2 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/29/09

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	65000	D
91-57-6	2-Methylnaphthalene	32000	D
208-96-8	Acenaphthylene	5800	DJ
83-32-9	Acenaphthene	7800	U
86-73-7	Fluorene	3900	DJ
85-01-8	Phenanthrene	12000	D
120-12-7	Anthracene	3100	DJ
206-44-0	Fluoranthene	3500	DJ
129-00-0	Pyrene	6100	DJ
56-55-3	Benzo (a) anthracene	2200	DJ
218-01-9	Chrysene	2200	DJ
205-99-2	Benzo (b) fluoranthene	7800	U
207-08-9	Benzo (k) fluoranthene	7800	U
50-32-8	Benzo (a) pyrene	7800	U
193-39-5	Indeno (1,2,3-cd) pyrene	7800	U
53-70-3	Dibenzo (a,h) anthracene	7800	U
191-24-2	Benzo (g,h,i) perylene	7800	U

(1) Cannot be separated from Diphenylamine

8/27/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-300/33-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-003A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2255.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

12.1

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	10	J
108-88-3	Toluene	770	
100-41-4	Ethylbenzene	1000	
1330-20-7	Xylene (total)	3870 4000	D B

8/26/09
2

KEY-URS070 S20

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-390/33-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-003ADL

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2268.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

12.1

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	110	U
108-88-3	Toluene	500	D
100-41-4	Ethylbenzene	910	D
1330-20-7	Xylene (total)	3800	D

8/26/09
a

KEY-URS070 S21

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

300/33-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-003E

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48136.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 12.1 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/28/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEH

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	110000	E
91-57-6	2-Methylnaphthalene	120000	E
208-96-8	Acenaphthylene	19800	E
83-32-9	Acenaphthene	3500	
86-73-7	Fluorene	14000	E
85-01-8	Phenanthrene	52000	E
120-12-7	Anthracene	14000	E
206-44-0	Fluoranthene	14000	E
129-00-0	Pyrene	17000	E
56-55-3	Benzo (a) anthracene	7900	E
218-01-9	Chrysene	7100	E
205-99-2	Benzo (b) fluoranthene	2900	J
207-08-9	Benzo (k) fluoranthene	4200	↓
50-32-8	Benzo (a) pyrene	6300	E
193-39-5	Indeno (1,2,3-cd) pyrene	820	J
53-70-3	Dibenzo (a,h) anthracene	460	↓
191-24-2	Benzo (g,h,i) perylene	920	↓

(1) Cannot be separated from Diphenylamine

8/27/09
m

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

300/33-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-003BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C48142.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 12.1 Decanted: (Y/N) NDate Extracted: 07/23/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/29/09Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEH

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	150000	D
91-57-6	2-Methylnaphthalene	130000	D
208-96-8	Acenaphthylene	27000	D
83-32-9	Acenaphthene	5200	DJ
86-73-7	Fluorene	19000	D
85-01-8	Phenanthrene	56000	D
120-12-7	Anthracene	15000	DJ
206-44-0	Fluoranthene	17000	DJ
129-00-0	Pyrene	30000	D
56-55-3	Benzo(a)anthracene	10000	DJ
218-01-9	Chrysene	9400	DJ
205-99-2	Benzo(b)fluoranthene	19000	U
207-08-9	Benzo(k)fluoranthene	19000	U
50-32-8	Benzo(a)pyrene	6600	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	19000	U
53-70-3	Dibenzo(a,h)anthracene	19000	U
191-24-2	Benzo(g,h,i)perylene	19000	U

(1) Cannot be separated from Diphenylamine

8/27/09
K

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP303/15-16

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910490-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G3412.D

Level: (low/med)

LOW

Date Received: 09/23/09

% Moisture: not dec.

13.4

Date Analyzed: 09/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-303/15-16

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water) SOIL

Lab Sample ID: 0910490-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N34275.D

Level: (low/med) LOW

Date Received: 09/23/09

% Moisture: 13.4 Decanted: (Y/N) N

Date Extracted: 09/25/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 09/28/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	380	U
91-57-6	2-Methylnaphthalene	120	J
208-96-8	Acenaphthylene	110	J
83-32-9	Acenaphthene	380	U
86-73-7	Fluorene	380	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	380	U
206-44-0	Fluoranthene	320	J
129-00-0	Pyrene	420	
56-55-3	Benzo (a) anthracene	280	J
218-01-9	Chrysene	320	J
205-99-2	Benzo (b) fluoranthene	480	
207-08-9	Benzo (k) fluoranthene	200	J
50-32-8	Benzo (a) pyrene	310	J
193-39-5	Indeno (1,2,3-cd) pyrene	140	J
53-70-3	Dibenzo (a,h) anthracene	380	U
191-24-2	Benzo (g,h,i) perylene	140	J

(1) Cannot be separated from Diphenylamine

10/28/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-304 25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water)

SOIL

Lab Sample ID: 0907790-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2228.D

Level: (low/med)

LOW

Date Received: 07/10/09

% Moisture: not dec.

20.8

Date Analyzed: 07/11/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	32	U
108-88-3	Toluene	32	U
100-41-4	Ethylbenzene	46	
1330-20-7	Xylene (total)	340	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

304/ 25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N32592.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 20.8 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

(μg/L or μg/Kg) UG/KG Q

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	3000		
91-57-6	2-Methylnaphthalene	7100 7200		ED
208-96-8	Acenaphthylene	3400		
83-32-9	Acenaphthene	720		
86-73-7	Fluorene	3200		
85-01-8	Phenanthrene	10000		ED
120-12-7	Anthracene	3000		
206-44-0	Fluoranthene	2700		
129-00-0	Pyrene	5200		
56-55-3	Benzo (a) anthracene	1800		
218-01-9	Chrysene	1500		
205-99-2	Benzo (b) fluoranthene	970		
207-08-9	Benzo (k) fluoranthene	340		JS
50-32-8	Benzo (a) pyrene	1600		
193-39-5	Indeno (1,2,3-cd) pyrene	440		
53-70-3	Dibenzo (a,h) anthracene	180		J
191-24-2	Benzo (g,h,i) perylene	590		

(1) Cannot be separated from Diphenylamine

8/12/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

304/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N32644.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 20.8 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μ L)Date Analyzed: 07/24/09Injection Volume: 2 (μ L)Dilution Factor: 4.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	2800	D
91-57-6	2-Methylnaphthalene	7100	D
208-96-8	Acenaphthylene	3200	D
83-32-9	Acenaphthene	670	DJ
86-73-7	Fluorene	3200	D
85-01-8	Phenanthrene	10000	D
120-12-7	Anthracene	2800	D
206-44-0	Fluoranthene	2700	D
129-00-0	Pyrene	5000	D
56-55-3	Benzo (a) anthracene	1600	DJ
218-01-9	Chrysene	1500	DJ
205-99-2	Benzo (b) fluoranthene	800	DJ
207-08-9	Benzo (k) fluoranthene	440	DJ
50-32-8	Benzo (a) pyrene	1500	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	340	DJ
53-70-3	Dibenzo (a,h) anthracene	1700	U
191-24-2	Benzo (g,h,i) perylene	410	DJ

(1) Cannot be separated from Diphenylamine

8/12/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-309/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-004A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2256.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

7.9

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	54	U
108-88-3	Toluene	320	J
100-41-4	Ethylbenzene	1800 9500	FD
1330-20-7	Xylene (total)	2600	J

8/21/09
2

KEY-URS070 S22

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-309/25-30DL

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS070
Matrix: (soil/water) SOIL Lab Sample ID: 0908257-004ADL
Sample wt/vol: 4 (g/mL) G Lab File ID: A\A65863.D
Level: (low/med) MED Date Received: 07/23/09
% Moisture: not dec. 7.9 Date Analyzed: 07/31/09
GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00
Soil Extract Volume: 10000 (µL) Soil Aliquot Volume 100 (µL)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(µg/L or µg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	680	U
108-88-3	Toluene	290	DJ
100-41-4	Ethylbenzene	18000	D
1330-20-7	Xylene (total)	4200	D

Handwritten signature/initials

KEY-URS070 S23

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

309/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-004B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48137.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 7.9 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/28/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	110000	E
91-57-6	2-Methylnaphthalene	110000	E
208-96-8	Acenaphthylene	3500	
83-32-9	Acenaphthene	32000	E
86-73-7	Fluorene	15000	E
85-01-8	Phenanthrene	61000	E
120-12-7	Anthracene	20000	E
206-44-0	Fluoranthene	17000	E
129-00-0	Pyrene	20000	E
56-55-3	Benzo(a)anthracene	10000	E
218-01-9	Chrysene	8500	E
205-99-2	Benzo(b)fluoranthene	4100	J
207-08-9	Benzo(k)fluoranthene	4900	↓
50-32-8	Benzo(a)pyrene	7100	E
193-39-5	Indeno(1,2,3-cd)pyrene	1100	J
53-70-3	Dibenzo(a,h)anthracene	630	↓
191-24-2	Benzo(g,h,i)perylene	960	↓

(1) Cannot be separated from Diphenylamine

8/27/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

309/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-004BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C48143.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 7.9 Decanted: (Y/N) NDate Extracted: 07/23/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/29/09Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	140000	D
91-57-6	2-Methylnaphthalene	120000	D
208-96-8	Acenaphthylene	4900	DJ
83-32-9	Acenaphthene	44000	D
86-73-7	Fluorene	26000	D
85-01-8	Phenanthrene	71000	D
120-12-7	Anthracene	23000	D
206-44-0	Fluoranthene	24000	D
129-00-0	Pyrene	35000	D
56-55-3	Benzo(a)anthracene	13000	DJ
218-01-9	Chrysene	12000	DJ
205-99-2	Benzo(b)fluoranthene	18000	U
207-08-9	Benzo(k)fluoranthene	5400	DJ
50-32-8	Benzo(a)pyrene	8000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	18000	U
53-70-3	Dibenzo(a,h)anthracene	18000	U
191-24-2	Benzo(g,h,i)perylene	18000	U

(1) Cannot be separated from Diphenylamine

8/27/09
2

309/25-30

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS070

Matrix: (soil/water) Soil Lab Sample ID: 0908257-004B

Sample wt/vol: 15 (g/mL) G Lab File ID: A\B23216.D

Level: (low/med) LOW Date Received: 7/23/09

% Moisture: not dec. 7.9 Date Extracted: 7/27/09

GC Column: R-5SILMS ID: .25 (mm) Date Analyzed: 8/4/09

Extract Volume: 1000 (μ l) Dilution Factor: 1.00

Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Alkylate 6	7	7	U
	DCL 100	7	7	U
	DCL 45	7	7	U
	DF 100	7	7	U
	Fuel Oil 2	10000 4200	7	U
	Diala A	7	7	U
	Fuel Oil 4	7	7	U
	Fuel Oil 6	7	7	U
	Gasoline	7	7	U
	High Viscosity Polybutene	7	7	U
	HYVOLT I	7	7	U
	HYVOLT II	7	7	U
	JP4 (Aviation Fuel)	7	7	U
	Kerosene	7	7	U
	Low Viscosity Polybutene	7	7	U
	Motor Oil	7	7	U
	Petroleum Base Transformer Oil	7	7	U
	DiChevrol Fluid 100 Cable Oil	7	7	U
	Sun 4 Cable Oil	7	7	U
	DiChevrol Fluid 500 Cable Oil	7	7	U
	Sun 6 Cable Oil	7	7	U
	Diesel Fuel Oil	7	7	U
	Total Petroleum Hydrocarbons	10000 4200	7	U
	Silicone Base Transformer Oil	7	7	U
	Univolt 60 Transformer Oil	7	7	U

JN

8/2/09

309/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SoilLab Sample ID: 0908257-004BDL

Sample wt/vol:

15(g/mL) GLab File ID: A\B23220.D

Level: (low/med)

LOWDate Received: 7/23/09

% Moisture: not dec.

7.9Date Extracted: 7/27/09GC Column: R-5SILMSID: .25

(mm)

Date Analyzed: 8/4/09Extract Volume: 1000 (μ l)Dilution Factor: 50.00Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

mg/KgQ

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>mg/Kg</u>	<u>Q</u>
	Alkylate 6		360	U
	DCL 100		360	U
	DCL 45		360	U
	DF 100		360	U
	Fuel Oil 2		10000	D <i>JN</i>
	Diala A		360	U
	Fuel Oil 4		360	U
	Fuel Oil 6		360	U
	Gasoline		360	U
	High Viscosity Polybutene		360	U
	HYVOLT I		360	U
	HYVOLT II		360	U
	JP4 (Aviation Fuel)		360	U
	Kerosene		360	U
	Low Viscosity Polybutene		360	U
	Motor Oil		360	U
	Petroleum Base Transformer Oil		360	U
	DiChevrol Fluid 100 Cable Oil		360	U
	Sun 4 Cable Oil		360	U
	DiChevrol Fluid 500 Cable Oil		360	U
	Sun 6 Cable Oil		360	U
	Diesel Fuel Oil		360	U
	Total Petroleum Hydrocarbons		10000	D
	Silicone Base Transformer Oil		360	U
	Univolt 60 Transformer Oil		360	U

8/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-309/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-005A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2269.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

11.6

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(pL)

Soil Aliquot Volume _____ (pL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(pg/L or pg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	57	U
108-88-3	Toluene	57	U
100-41-4	Ethylbenzene	150	
1330-20-7	Xylene (total)	340	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

309/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-005B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48146.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 11.6 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/29/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	18000	E	
91-57-6	2-Methylnaphthalene	29000	E	
208-96-8	Acenaphthylene	1400		
83-32-9	Acenaphthene	14000	E	
86-73-7	Fluorene	7400	E	
85-01-8	Phenanthrene	25000	E	
120-12-7	Anthracene	6500	E	
206-44-0	Fluoranthene	7200	E	
129-08-0	Pyrene	8700	E	
56-55-3	Benzo (a) anthracene	3800		
218-01-9	Chrysene	3500		
205-99-2	Benzo (b) fluoranthene	1300		
207-08-9	Benzo (k) fluoranthene	1400		
50-32-8	Benzo (a) pyrene	2400		
193-39-5	Indeno (1,2,3-cd) pyrene	570		
53-70-3	Dibenzo (a,h) anthracene	310		J
191-24-2	Benzo (g,h,i) perylene	570		

(1) Cannot be separated from Diphenylamine

8/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

309/35-40DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-005BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C48170.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 11.6 Decanted: (Y/N) NDate Extracted: 07/23/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/30/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	20000	D
91-57-6	2-Methylnaphthalene	32000	D
208-96-8	Acenaphthylene	1600	DJ
83-32-9	Acenaphthene	18000	D
86-73-7	Fluorene	10000	D
85-01-8	Phenanthrene	26000	D
120-12-7	Anthracene	7700	D
206-44-0	Fluoranthene	8300	D
129-00-0	Pyrene	11000	D
56-55-3	Benzo(a)anthracene	4200	D
218-01-9	Chrysene	3900	D
205-99-2	Benzo(b)fluoranthene	1300	DJ
207-08-9	Benzo(k)fluoranthene	1600	DJ
50-32-8	Benzo(a)pyrene	2600	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	3700	U
53-70-3	Dibenzo(a,h)anthracene	3700	U
191-24-2	Benzo(g,h,i)perylene	3700	U

(1) Cannot be separated from Diphenylamine

8/27/09

309/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SoilLab Sample ID: 0908257-005B

Sample wt/vol:

15(g/mL) GLab File ID: A\B23217.D

Level: (low/med)

LOWDate Received: 7/23/09

% Moisture: not dec.

11.6Date Extracted: 7/27/09GC Column: R-5SILMSID: .25 (mm)Date Analyzed: 8/4/09Extract Volume: 1000 (μ l)Dilution Factor: 1.00Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Alkylate 6		8	U
	DCL 100		8	U
	DCL 45		8	U
	DF 100		8	U
	Fuel Oil 2	8000 3400	8	U
	Diala A		8	U
	Fuel Oil 4		8	U
	Fuel Oil 6		8	U
	Gasoline		8	U
	High Viscosity Polybutene		8	U
	HYVOLT I		8	U
	HYVOLT II		8	U
	JP4 (Aviation Fuel)		8	U
	Kerosene		8	U
	Low Viscosity Polybutene		8	U
	Motor Oil		8	U
	Petroleum Base Transformer Oil		8	U
	DiChevrol Fluid 100 Cable Oil		8	U
	Sun 4 Cable Oil		8	U
	DiChevrol Fluid 500 Cable Oil		8	U
	Sun 6 Cable Oil		8	U
	Diesel Fuel Oil		8	U
	Total Petroleum Hydrocarbons	8000 3400	8	U
	Silicone Base Transformer Oil		8	U
	Univolt 60 Transformer Oil		8	U

DJN

8/27/09

309/35-40DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SoilLab Sample ID: 0908257-005BDLSample wt/vol: 15(g/mL) GLab File ID: A\B23221.DLevel: (low/med) LOWDate Received: 7/23/09

% Moisture: not dec.

11.6Date Extracted: 7/27/09GC Column: R-5SILMSID: .25 (mm)Date Analyzed: 8/4/09Extract Volume: 1000 (μ l)Dilution Factor: 50.00Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

mg/Kg

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Alkylate 6	380		U
	DCL 100	380		U
	DCL 45	380		U
	DF 100	380		U
	Fuel Oil 2	8000		DM J N
	Diala A	380		U
	Fuel Oil 4	380		U
	Fuel Oil 6	380		U
	Gasoline	380		U
	High Viscosity Polybutene	380		U
	HYVOLT I	380		U
	HYVOLT II	380		U
	JP4 (Aviation Fuel)	380		U
	Kerosene	380		U
	Low Viscosity Polybutene	380		U
	Motor Oil	380		U
	Petroleum Base Transformer Oil	380		U
	Dichevrol Fluid 100 Cable Oil	380		U
	Sun 4 Cable Oil	380		U
	Dichevrol Fluid 500 Cable Oil	380		U
	Sun 6 Cable Oil	380		U
	Diesel Fuel Oil	380		U
	Total Petroleum Hydrocarbons	8000		D
	Silicone Base Transformer Oil	380		U
	Univolt 60 Transformer Oil	380		U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-310/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-006A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2258.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

10.5

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	56	<u>U</u>
108-88-3	Toluene	90	<u>J</u>
100-41-4	Ethylbenzene	<u>1500</u> 1700	<u>SD</u>
1330-20-7	Xylene (total)	1700	<u>J</u>

8/26/09
2

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

BGF-310/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-006ADLSample wt/vol: 5 (g/mL) GLab File ID: 09\G2335.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: not dec. 10.5Date Analyzed: 07/31/09GC Column: Rtx-624 ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	110	U
108-88-3	Toluene	43	DJ
100-41-4	Ethylbenzene	1500	D
1330-20-7	Xylene (total)	1500	D

8/26/09
2

KEY-URS070 S26

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

310/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-006B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48181.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/30/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	27000	E
91-57-6	2-Methylnaphthalene	40000	E
208-96-8	Acenaphthylene	1600	
83-32-9	Acenaphthene	14000	E
86-73-7	Fluorene	8500	E
85-01-8	Phenanthrene	24000	E
120-12-7	Anthracene	7400	E
206-44-0	Fluoranthene	6600	E
129-00-0	Pyrene	8100	E
56-55-3	Benzo (a) anthracene	3800	
218-01-9	Chrysene	3500	
205-99-2	Benzo (b) fluoranthene	1800	
207-08-9	Benzo (k) fluoranthene	1600	
50-32-8	Benzo (a) pyrene	3000	
193-39-5	Indeno (1,2,3-cd) pyrene	450	
53-70-3	Dibenzo (a, h) anthracene	280	J
191-24-2	Benzo (g, h, i) perylene	470	

(1) Cannot be separated from Diphenylamine

8/27/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

310/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-006BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48173.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 10.5 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/30/09

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	38000		D
91-57-6	2-Methylnaphthalene	57000		D
208-96-8	Acenaphthylene	3300		DJ
83-32-9	Acenaphthene	17000		D
86-73-7	Fluorene	13000		D
85-01-8	Phenanthrene	32000		D
120-12-7	Anthracene	11000		D
206-44-0	Fluoranthene	9900		D
129-00-0	Pyrene	14000		D
56-55-3	Benzo(a)anthracene	5700		DJ
218-01-9	Chrysene	5500		DJ
205-99-2	Benzo(b)fluoranthene	7400		U
207-08-9	Benzo(k)fluoranthene	2200		DJ
50-32-8	Benzo(a)pyrene	3700		DJ
193-39-5	Indeno(1,2,3-cd)pyrene	7400		U
53-70-3	Dibenzo(a,h)anthracene	7400		U
191-24-2	Benzo(g,h,i)perylene	7400		U

(1) Cannot be separated from Diphenylamine

8/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-310/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-006BSample wt/vol: 15 (g/mL) GLab File ID: A\B23348.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 10.5 Decanted: (Y/N) NDate Extracted: 07/27/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 08/12/09Injection Volume: 2 (μL)Dilution Factor: 2.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
	Alkylate 6	15	U
	DCL 100	15	U
	DCL 45	15	U
	DF 100	15	U
	Fuel Oil 2	15	U
	Diala A	15	U
	Fuel Oil 4	15	U
	Fuel Oil 6	15	U
	Gasoline	15	U
	High Viscosity Polybutene	15	U
	HYVOLT I	15	U
	HYVOLT II	15	U
	JP4 (Aviation Fuel)	15	U
8008-20-6	Kerosene	15	U
	Low Viscosity Polybutene	15	U
	Motor Oil	15	U
	Petroleum Base Transformer Oil	15	U
	DiChevrol Fluid 100 Cable Oil	15	U
	Sun 4 Cable Oil	15	U
	DiChevrol Fluid 500 Cable Oil	15	U
	Sun 6 Cable Oil	370	X JA
	Diesel Fuel Oil	15	U
	Total Petroleum Hydrocarbons	370	
	Silicone Base Transformer Oil	15	U
	Univolt 60 Transformer Oil	15	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-310/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SOIL

Lab Sample ID: 0908257-007A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2259.D

Level: (low/med)

LOW

Date Received: 07/23/09

% Moisture: not dec.

11

Date Analyzed: 07/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____ (μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	56	<u>U</u>
108-88-3	Toluene	33	<u>J</u>
100-41-4	Ethylbenzene	530	
1330-20-7	Xylene (total)	650	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

310/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water) SOIL

Lab Sample ID: 0908257-007B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C48147.D

Level: (low/med) LOW

Date Received: 07/23/09

% Moisture: 11 Decanted: (Y/N) N

Date Extracted: 07/23/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/29/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	16000 14000	ED
91-57-6	2-Methylnaphthalene	34000 30000	ED
208-96-8	Acenaphthylene	370	<u>U</u>
83-32-9	Acenaphthene	5200	
86-73-7	Fluorene	3500	
85-01-8	Phenanthrene	15000	ED
120-12-7	Anthracene	3900	
206-44-0	Fluoranthene	3200	
129-00-0	Pyrene	3800	
56-55-3	Benzo(a)anthracene	1700	
218-01-9	Chrysene	1600	
205-99-2	Benzo(b)fluoranthene	560	
207-08-9	Benzo(k)fluoranthene	600	
50-32-8	Benzo(a)pyrene	1100	
193-39-5	Indeno(1,2,3-cd)pyrene	250	<u>J</u>
53-70-3	Dibenzo(a,h)anthracene	150	<u>J</u>
191-24-2	Benzo(g,h,i)perylene	270	<u>J</u>

(1) Cannot be separated from Diphenylamine

8/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

310/35-40DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Matrix: (soil/water) SOILLab Sample ID: 0908257-007BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C48171.DLevel: (low/med) LOWDate Received: 07/23/09% Moisture: 11 Decanted: (Y/N) NDate Extracted: 07/23/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 07/30/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	16000	D
91-57-6	2-Methylnaphthalene	34000	D
208-96-8	Acenaphthylene	810	DJ
83-32-9	Acenaphthene	6800	D
86-73-7	Fluorene	6200	D
85-01-8	Phenanthrene	15000	D
120-12-7	Anthracene	4200	D
206-44-0	Fluoranthene	3700	D
129-00-0	Pyrene	5400	D
56-55-3	Benzo(a)anthracene	1700	DJ
218-01-9	Chrysene	1800	DJ
205-99-2	Benzo(b)fluoranthene	3700	U
207-08-9	Benzo(k)fluoranthene	3700	U
50-32-8	Benzo(a)pyrene	1100	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	3700	U
53-70-3	Dibenzo(a,h)anthracene	3700	U
191-24-2	Benzo(g,h,i)perylene	3700	U

(1) Cannot be separated from Diphenylamine

8/27/09

310/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

SoilLab Sample ID: 0908257-007B

Sample wt/vol:

15(g/mL) GLab File ID: A\B23215.D

Level: (low/med)

LOWDate Received: 7/23/09

% Moisture: not dec.

11Date Extracted: 7/27/09GC Column: R-5SILMSID: .25 (mm)Date Analyzed: 8/4/09Extract Volume: 1000 (μ l)Dilution Factor: 1.00Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Alkylate 6		8	U
	DCL 100		8	U
	DCL 45		8	U
	DF 100		8	U
	Fuel Oil 2	3200 - 2900	8	U DJN
	Diala A		8	U
	Fuel Oil 4		8	U
	Fuel Oil 6		8	U
	Gasoline		8	U
	High Viscosity Polybutene		8	U
	HYVOLT I		8	U
	HYVOLT II		8	U
	JP4 (Aviation Fuel)		8	U
	Kerosene		8	U
	Low Viscosity Polybutene		8	U
	Motor Oil		8	U
	Petroleum Base Transformer Oil		8	U
	DiChevrol Fluid 100 Cable Oil		8	U
	Sun 4 Cable Oil		8	U
	DiChevrol Fluid 500 Cable Oil		8	U
	Sun 6 Cable Oil		8	U
	Diesel Fuel Oil		8	U
	Total Petroleum Hydrocarbons	3200 - 2900	8	U ED
	Silicone Base Transformer Oil		8	U
	Univolt 60 Transformer Oil		8	U

8/2+65
2

310/35-40DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070

Matrix: (soil/water)

Soil

Lab Sample ID:

0908257-007BDL

Sample wt/vol:

15

(g/mL)

G

Lab File ID:

A\B23219.D

Level: (low/med)

LOW

Date Received:

7/23/09

% Moisture: not dec.

11

Date Extracted:

7/27/09GC Column: R-5SILMSID: .25 (mm)

Date Analyzed:

8/4/09Extract Volume: 1000 (μ l)

Dilution Factor:

10.00Injection Volume: 2 (μ l)

CONCENTRATION UNITS:

(ug/L or ug/Kg)

mg/Kg

Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	mg/Kg	Q
	Alkylate 6	75		U
	DCL 100	75		U
	DCL 45	75		U
	DF 100	75		U
	Fuel Oil 2	3200		D JA
	Diala A	75		U
	Fuel Oil 4	75		U
	Fuel Oil 6	75		U
	Gasoline	75		U
	High Viscosity Polybutene	75		U
	HYVOLT I	75		U
	HYVOLT II	75		U
	JP4 (Aviation Fuel)	75		U
	Kerosene	75		U
	Low Viscosity Polybutene	75		U
	Motor Oil	75		U
	Petroleum Base Transformer Oil	75		U
	DiChevrol Fluid 100 Cable Oil	75		U
	Sun 4 Cable Oil	75		U
	DiChevrol Fluid 500 Cable Oil	75		U
	Sun 6 Cable Oil	75		U
	Diesel Fuel Oil	75		U
	Total Petroleum Hydrocarbons	3200		D
	Silicone Base Transformer Oil	75		U
	Univolt 60 Transformer Oil	75		U

8/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-312/25-25.5

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS064

Matrix: (soil/water)

SOIL

Lab Sample ID: 0907457-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G2226.D

Level: (low/med)

LOW

Date Received: 07/01/09

% Moisture: not dec.

13.7

Date Analyzed: 07/11/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 5.00

Soil Extract Volume: _____

(μ L)

Soil Aliquot Volume _____

(μ L)

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	7	J
108-88-3	Toluene	20	J
100-41-4	Ethylbenzene	36	
1330-20-7	Xylene (total)	190	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

312/25-25.5DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS064

Matrix: (soil/water) SOIL

Lab Sample ID: 0907457-001BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C47914.D

Level: (low/med) LOW

Date Received: 07/01/09

% Moisture: 13.7 Decanted: (Y/N) N

Date Extracted: 07/09/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/13/09

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	48000	D
91-57-6	2-Methylnaphthalene	66000	D
208-96-8	Acenaphthylene	7900	D
83-32-9	Acenaphthene	12000	D
86-73-7	Fluorene	18000	D
85-01-8	Phenanthrene	75000	D
120-12-7	Anthracene	15000	D
206-44-0	Fluoranthene	34000	D
129-00-0	Pyrene	61000	D
56-55-3	Benzo(a)anthracene	21000	D
218-01-9	Chrysene	25000	D
205-99-2	Benzo(b)fluoranthene	10000	D
207-08-9	Benzo(k)fluoranthene	11000	D
50-32-8	Benzo(a)pyrene	19000	D
193-39-5	Indeno(1,2,3-cd)pyrene	4800	DJ
53-70-3	Dibenzo(a,h)anthracene	2100	DJ
191-24-2	Benzo(g,h,i)perylene	5500	DJ

(1) Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

312/25-25.5

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS064

Matrix: (soil/water) SOIL

Lab Sample ID: 0907457-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C47899.D

Level: (low/med) LOW

Date Received: 07/01/09

% Moisture: 13.7 Decanted: (Y/N) N

Date Extracted: 07/09/09

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 07/11/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	42000	E
91-57-6	2-Methylnaphthalene	67000	E
208-96-8	Acenaphthylene	6800	E
83-32-9	Acenaphthene	11000	E
86-73-7	Fluorene	16000	E
85-01-8	Phenanthrene	58000	E
120-12-7	Anthracene	15000	E
206-44-0	Fluoranthene	21000	E
129-00-0	Pyrene	78000	E
56-55-3	Benzo(a)anthracene	17000	E
218-01-9	Chrysene	18000	E
205-99-2	Benzo(b)fluoranthene	12000	E
207-08-9	Benzo(k)fluoranthene	8900	E
50-32-8	Benzo(a)pyrene	15000	E
193-39-5	Indeno(1,2,3-cd)pyrene	2200	
53-70-3	Dibenzo(a,h)anthracene	1400	
191-24-2	Benzo(g,h,i)perylene	2500	

(1) Cannot be separated from Diphenylamine

7/28/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP320/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910593-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G3442.D

Level: (low/med)

LOW

Date Received: 09/28/09

% Moisture: not dec.

11.8

Date Analyzed: 09/29/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	6	U
108-88-3	Toluene	2	J
100-41-4	Ethylbenzene	71	
1330-20-7	Xylene (total)	120	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34409.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 11.8Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	280		J
91-57-6	2-Methylnaphthalene	4600		
208-96-8	Acenaphthylene	810		
83-32-9	Acenaphthene	3800		
86-73-7	Fluorene	3700		
85-01-8	Phenanthrene	16000 11000		X D
120-12-7	Anthracene	3300		
206-44-0	Fluoranthene	3400		
129-00-0	Pyrene	4800		
56-55-3	Benzo (a) anthracene	2000		
218-01-9	Chrysene	1800		
205-99-2	Benzo (b) fluoranthene	730		J
207-08-9	Benzo (k) fluoranthene	370		
50-32-8	Benzo (a) pyrene	1200		
193-39-5	Indeno (1,2,3-cd) pyrene	290		J
53-70-3	Dibenzo (a,h) anthracene	130		J J
191-24-2	Benzo (g,h,i) perylene	350		J

(1) Cannot be separated from Diphenylamine

10/28/09
C

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34467.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 11.8 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/06/09Injection Volume: 2 (μ L)Dilution Factor: 5.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	1900	U
91-57-6	2-Methylnaphthalene	5400	D
208-96-8	Acenaphthylene	990	DJ
83-32-9	Acenaphthene	4800	D
86-73-7	Fluorene	4500	D
85-01-8	Phenanthrene	16000	D
120-12-7	Anthracene	4500	D
206-44-0	Fluoranthene	4400	D
129-00-0	Pyrene	7200	D
56-55-3	Benzo (a) anthracene	2700	D
218-01-9	Chrysene	2300	D
205-99-2	Benzo (b) fluoranthene	1000	DJ
207-08-9	Benzo (k) fluoranthene	1900	U
50-32-8	Benzo (a) pyrene	1500	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	390	DJ
53-70-3	Dibenzo (a,h) anthracene	1900	U
191-24-2	Benzo (g,h,i) perylene	530	DJ

(1) Cannot be separated from Diphenylamine

10/25/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/25-30

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34383.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 11.8 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) NpH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	mg/Kg	Q
	Alkylate 6	8		U
	DCL 100	8		U
	DCL 45	8		U
	DF 100	8		U
	Fuel Oil 2	2600 1700		DX
	Diala A	8		U
	Fuel Oil 4	8		U
	Fuel Oil 6	8		U
	Gasoline	8		U
	High Viscosity Polybutene	8		U
	HYVOLT I	8		U
	HYVOLT II	8		U
	JP4 (Aviation Fuel)	8		U
8008-20-6	Kerosene	8		U
	Low Viscosity Polybutene	8		U
	Motor Oil	8		U
	Petroleum Base Transformer Oil	8		U
	DiChevrol Fluid 100 Cable Oil	8		U
	Sun 4 Cable Oil	8		U
	DiChevrol Fluid 500 Cable Oil	8		U
	Sun 6 Cable Oil	8		U
	Diesel Fuel Oil	8		U
	Total Petroleum Hydrocarbons	2600 1700		XD
	Silicone Base Transformer Oil	8		U
	Univolt 60 Transformer Oil	8		U

(1) Cannot be separated from Diphenylamine

10/28/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/25-30DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34386.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 11.8 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/02/09Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	mg/Kg	Q
	Alkylate 6	150		U
	DCL 100	150		U
	DCL 45	150		U
	DF 100	150		U
	Fuel Oil 2	2600		DX
	Diala A	150		U
	Fuel Oil 4	150		U
	Fuel Oil 6	150		U
	Gasoline	150		U
	High Viscosity Polybutene	150		U
	HYVOLT I	150		U
	HYVOLT II	150		U
	JP4 (Aviation Fuel)	150		U
8008-20-6	Kerosene	150		U
	Low Viscosity Polybutene	150		U
	Motor Oil	150		U
	Petroleum Base Transformer Oil	150		U
	DiChevrol Fluid 100 Cable Oil	150		U
	Sun 4 Cable Oil	150		U
	DiChevrol Fluid 500 Cable Oil	150		U
	Sun 6 Cable Oil	150		U
	Diesel Fuel Oil	150		U
	Total Petroleum Hydrocarbons	2600		D
	Silicone Base Transformer Oil	150		U
	Univolt 60 Transformer Oil	150		U

(1) Cannot be separated from Diphenylamine

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP320/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOILLab Sample ID: 0910593-002ASample wt/vol: 5(g/mL) GLab File ID: 09\G3438.D

Level: (low/med)

LOWDate Received: 09/28/09

% Moisture: not dec.

9.48Date Analyzed: 09/29/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	55	U
108-88-3	Toluene	55	U
100-41-4	Ethylbenzene	1400	
1330-20-7	Xylene (total)	990	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-320/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-002BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34410.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 9.48 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene		1200	
91-57-6	2-Methylnaphthalene	<u>8200</u>	6600	<u>E D</u>
208-96-8	Acenaphthylene		340	<u>J</u>
83-32-9	Acenaphthene		5400	
86-73-7	Fluorene		3300	
85-01-8	Phenanthrene	<u>14000</u>	11000	<u>E D</u>
120-12-7	Anthracene		3200	
206-44-0	Fluoranthene		3100	
129-00-0	Pyrene		4500	
56-55-3	Benzo (a) anthracene		1700	
218-01-9	Chrysene		1600	
205-99-2	Benzo (b) fluoranthene		580	<u>J</u>
207-08-9	Benzo (k) fluoranthene		330	<u>J</u>
50-32-8	Benzo (a) pyrene		1000	
193-39-5	Indeno (1,2,3-cd) pyrene		240	<u>J</u>
53-70-3	Dibenzo (a,h) anthracene		100	<u>J</u>
191-24-2	Benzo (g,h,i) perylene		300	<u>J</u>

(1) Cannot be separated from Diphenylamine

10/28/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGR-320/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-002BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34468.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 9.48 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/06/09Injection Volume: 2 (μ L)Dilution Factor: 5.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μ g/L or μ g/Kg) μ g/Kg Q

91-20-3	Naphthalene	1500	DJ
91-57-6	2-Methylnaphthalene	8200	D
208-96-8	Acenaphthylene	420	DJ
83-32-9	Acenaphthene	7000	D
86-73-7	Fluorene	4200	D
85-01-8	Phenanthrene	14000	D
120-12-7	Anthracene	4000	D
206-44-0	Fluoranthene	4000	D
129-00-0	Pyrene	6400	D
56-55-3	Benzo (a) anthracene	2400	D
218-01-9	Chrysene	1900	D
205-99-2	Benzo (b) fluoranthene	850	DJ
207-08-9	Benzo (k) fluoranthene	1800	U
50-32-8	Benzo (a) pyrene	1300	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	1800	U
53-70-3	Dibenzo (a,h) anthracene	1800	U
191-24-2	Benzo (g,h,i) perylene	430	DJ

(1) Cannot be separated from Diphenylamine

10/28/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/30-35

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-002BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34384.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 9.48 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/02/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) N pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	mg/Kg	Q
	Alkylate 6	7		U
	DCL 100	7		U
	DCL 45	7		U
	DF 100	7		U
	Fuel Oil 2	2500 1400		U EX
	Diala A	7		U
	Fuel Oil 4	7		U
	Fuel Oil 6	7		U
	Gasoline	7		U
	High Viscosity Polybutene	7		U
	HYVOLT I	7		U
	HYVOLT II	7		U
	JP4 (Aviation Fuel)	7		U
8008-20-6	Kerosene	7		U
	Low Viscosity Polybutene	7		U
	Motor Oil	7		U
	Petroleum Base Transformer Oil	7		U
	DiChevrol Fluid 100 Cable Oil	7		U
	Sun 4 Cable Oil	7		U
	DiChevrol Fluid 500 Cable Oil	7		U
	Sun 6 Cable Oil	7		U
	Diesel Fuel Oil	7		U
	Total Petroleum Hydrocarbons	2500 1400		U EX
	Silicone Base Transformer Oil	7		U
	Univolt 60 Transformer Oil	7		U

(1) Cannot be separated from Diphenylamine

10/28/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-320/30-35DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910593-002BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34387.DLevel: (low/med) LOWDate Received: 09/28/09% Moisture: 9.48 Decanted: (Y/N) NDate Extracted: 09/29/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/02/09Injection Volume: 2 (μ L)Dilution Factor: 20.00GPC Cleanup: (Y/N) N pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μ g/L or μ g/Kg) mg/Kg Q

	Alkylate 6	150	U
	DCL 100	150	U
	DCL 45	150	U
	DF 100	150	U
	Fuel Oil 2	2500	DX
	Diala A	150	U
	Fuel Oil 4	150	U
	Fuel Oil 6	150	U
	Gasoline	150	U
	High Viscosity Polybutene	150	U
	HYVOLT I	150	U
	HYVOLT II	150	U
	JP4 (Aviation Fuel)	150	U
8008-20-6	Kerosene	150	U
	Low Viscosity Polybutene	150	U
	Motor Oil	150	U
	Petroleum Base Transformer Oil	150	U
	DiChevrol Fluid 100 Cable Oil	150	U
	Sun 4 Cable Oil	150	U
	DiChevrol Fluid 500 Cable Oil	150	U
	Sun 6 Cable Oil	150	U
	Diesel Fuel Oil	150	U
	Total Petroleum Hydrocarbons	2500	D
	Silicone Base Transformer Oil	150	U
	Univolt 60 Transformer Oil	150	U

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP321/32-33

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910570-001A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G3426.D

Level: (low/med)

LOW

Date Received: 09/25/09

% Moisture: not dec.

17.1

Date Analyzed: 09/29/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	800	J
100-88-3	Toluene	48000	E
100-41-4	Ethylbenzene	33000	E
1330-20-7	Xylene (total)	76000	E

10/23/09
a

KEY-URS082 S41

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP321/32-33DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID:

0910570-001ADLSample wt/vol: 4(g/mL) G

Lab File ID:

A\A66788.D

Level: (low/med)

MED

Date Received:

09/25/09

% Moisture: not dec.

17.1

Date Analyzed:

10/08/09GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

10.00

Soil Extract Volume:

1000 (µL)

Soil Aliquot Volume

100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	7500	U
108-88-3	Toluene	210000	D
100-41-4	Ethylbenzene	150000	D
1330-20-7	Xylene (total)	520000	D

10/27/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

DGP-321/32-33

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910570-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34282.DLevel: (low/med) LOWDate Received: 09/25/09% Moisture: 17.1 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 09/28/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μ g/L or μ g/Kg) UG/KG Q

91-20-3	Naphthalene	340000	E
91-57-6	2-Methylnaphthalene	350000	E
208-96-8	Acenaphthylene	60000	E
83-32-9	Acenaphthene	15000	E
86-73-7	Fluorene	67000	E
85-01-8	Phenanthrene	200000	E
120-12-7	Anthracene	52000	E
206-44-0	Fluoranthene	36000	E
129-00-0	Pyrene	94000	E
56-55-3	Benzo (a) anthracene	47000	E
218-01-9	Chrysene	35000	E
205-99-2	Benzo (b) fluoranthene	19000	J
207-08-9	Benzo (k) fluoranthene	5700	J
50-32-8	Benzo (a) pyrene	23000	E
193-39-5	Indeno (1,2,3-cd) pyrene	3500	J
53-70-3	Dibenzo (a,h) anthracene	2000	J
191-24-2	Benzo (g,h,i) perylene	3500	J

(1) Cannot be separated from Diphenylamine

id 276/9

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-321/32-33DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910570-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34554.DLevel: (low/med) LOWDate Received: 09/25/09% Moisture: 17.1 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/12/09Injection Volume: 2 (μ L)Dilution Factor: 250.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) UG/KG	Q
91-20-3	Naphthalene	800000	D
91-57-6	2-Methylnaphthalene	580000	D
208-96-8	Acenaphthylene	210000	D
83-32-9	Acenaphthene	41000	DJ
86-73-7	Fluorene	150000	D
85-01-8	Phenanthrene	430000	D
120-12-7	Anthracene	110000	D
206-44-0	Fluoranthene	89000	DJ
129-00-0	Pyrene	160000	D
56-55-3	Benzo (a) anthracene	67000	DJ
218-01-9	Chrysene	65000	DJ
205-99-2	Benzo (b) fluoranthene	100000	U
207-08-9	Benzo (k) fluoranthene	100000	U
50-32-8	Benzo (a) pyrene	31000	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	100000	U
53-70-3	Dibenzo (a,h) anthracene	100000	U
191-34-2	Benzo (g,h,i) perylene	100000	U

(1) Cannot be separated from Diphenylamine

102769

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP322/30-32DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910525-001ADL

Sample wt/vol: 4

(g/mL) G

Lab File ID: A\A66787.D

Level: (low/med)

MED

Date Received: 09/24/09

% Moisture: not dec.

15.6

Date Analyzed: 10/08/09

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____

1000 (µL)

Soil Aliquot Volume 100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	1700	DJ
108-88-3	Toluene	120000	D
100-41-4	Ethylbenzene	60000	D
1330-20-7	Xylene (total)	390000	D

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DGP322/30-32

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS082

Matrix: (soil/water)

SOILLab Sample ID: 0910525-001ASample wt/vol: 5(g/mL) GLab File ID: 09\G3415.D

Level: (low/med)

LOWDate Received: 09/24/09

% Moisture: not dec.

15.6Date Analyzed: 09/28/09GC Column: Rtx-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG

Q

71-43-2	Benzene	13000	E
108-88-3	Toluene	45000	E
100-41-4	Ethylbenzene	24000	E
1330-20-7	Xylene (total)	65000	E

10/27/09
2

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-322/30-32

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910525-001BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34279.DLevel: (low/med) LOWDate Received: 09/24/09% Moisture: 15.6 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 09/28/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	500000	E	E
91-57-6	2-Methylnaphthalene	510000	E	E
208-96-8	Acenaphthylene	82000	E	E
83-32-9	Acenaphthene	21000	E	E
86-73-7	Fluorene	89000	E	E
85-01-8	Phenanthrene	300000	E	E
120-12-7	Anthracene	63000	E	E
206-44-0	Fluoranthene	49000	E	E
129-00-0	Pyrene	120000	E	E
56-55-3	Benzo (a) anthracene	51000	E	E
218-01-9	Chrysene	33000	E	E
205-99-2	Benzo (b) fluoranthene	20000	E	J
207-08-9	Benzo (k) fluoranthene	6600	E	J
50-32-8	Benzo (a) pyrene	25000	E	E
193-39-5	Indeno (1,2,3-cd) pyrene	4700	E	J
53-70-3	Dibenzo (a,h) anthracene	2700	E	J
191-24-2	Benzo (g,h,i) perylene	4300	E	J

(1) Cannot be separated from Diphenylamine

10/27/09

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-322/30-32DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910525-001BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34555.DLevel: (low/med) LOWDate Received: 09/24/09% Moisture: 15.6 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 10/12/09Injection Volume: 2 (μ L)Dilution Factor: 400.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
91-20-3	Naphthalene	1100000	D
91-57-6	2-Methylnaphthalene	830000	D
208-96-8	Acenaphthylene	300000	D
83-32-9	Acenaphthene	59000	DJ
86-73-7	Fluorene	220000	D
85-01-8	Phenanthrene	610000	D
120-12-7	Anthracene	150000	DJ
206-44-0	Fluoranthene	120000	DJ
129-00-0	Pyrene	230000	D
56-55-3	Benzo (a) anthracene	100000	DJ
218-01-9	Chrysene	94000	DJ
205-99-2	Benzo (b) fluoranthene	160000	U
207-08-9	Benzo (k) fluoranthene	160000	U
50-32-8	Benzo (a) pyrene	44000	DJ
193-39-5	Indeno (1,2,3-cd) pyrene	160000	U
53-70-3	Dibenzo (a, b) anthracene	160000	U
191-24-2	Benzo (g, h, i) perylene	160000	U

(1) Cannot be separated from Diphenylamine

10/27/09
2

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP323/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910525-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G3437.D

Level: (low/med)

LOW

Date Received: 09/24/09

% Moisture: not dec.

10.1

Date Analyzed: 09/29/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-323/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910525-002BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34270.DLevel: (low/med) LOWDate Received: 09/24/09% Moisture: 10.1 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 09/28/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	200	J
91-57-6	2-Methylnaphthalene	88	J
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
56-55-3	Benzo (a) anthracene	370	U
218-01-9	Chrysene	370	U
205-99-2	Benzo (b) fluoranthene	370	U
207-08-9	Benzo (k) fluoranthene	370	U J
50-32-8	Benzo (a) pyrene	370	U
193-39-5	Indeno (1,2,3-cd) pyrene	370	U
53-70-3	Dibenzo (a,h) anthracene	370	U
191-24-2	Benzo (g,h,i) perylene	370	U

(1) Cannot be separated from Diphenylamine

10/28/09
a

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP325/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID:

0910525-003A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

09\G3422.D

Level: (low/med)

LOW

Date Received:

09/24/09

% Moisture: not dec.

7.09

Date Analyzed:

09/28/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

_____ (µL)

Soil Aliquot Volume

_____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-325/35-40

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910525-003BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34271.DLevel: (low/med) LOWDate Received: 09/24/09% Moisture: 7.09 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 09/28/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	360	U
91-57-6	2-Methylnaphthalene	360	U
208-96-8	Acenaphthylene	360	U
83-32-9	Acenaphthene	360	U
86-73-7	Fluorene	360	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
56-55-3	Benzo (a) anthracene	360	U
218-01-9	Chrysene	360	U
205-99-2	Benzo (b) fluoranthene	360	U
207-08-9	Benzo (k) fluoranthene	360	U J
50-32-8	Benzo (a) pyrene	360	U
193-39-5	Indeno (1,2,3-cd) pyrene	360	U
53-70-3	Dibenzo (a,h) anthracene	360	U
191-24-2	Benzo (g,h,i) perylene	360	U

(1) Cannot be separated from Diphenylamine

10/28/09
✓

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP326/26-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

Matrix: (soil/water)

SOIL

Lab Sample ID: 0910490-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID: 09\G3436.D

Level: (low/med)

LOW

Date Received: 09/23/09

% Moisture: not dec.

17.1

Date Analyzed: 09/29/09

GC Column: Rtx-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-326/26-28

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910490-002BSample wt/vol: 15 (g/mL) GLab File ID: 9\N34280.DLevel: (low/med) LOWDate Received: 09/23/09% Moisture: 17.1 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μ L)Date Analyzed: 09/28/09Injection Volume: 2 (μ L)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(μ g/L or μ g/Kg)	UG/KG Q
91-20-3	Naphthalene	61000	E
91-57-6	2-Methylnaphthalene	400000	E
208-96-8	Acenaphthylene	170000	E
83-32-9	Acenaphthene	33000	E
86-73-7	Fluorene	140000	E
85-01-8	Phenanthrene	470000	E
120-12-7	Anthracene	120000	E
206-44-0	Fluoranthene	170000	E
129-00-0	Pyrene	170000	E
56-55-3	Benzo(a)anthracene	51000	E
218-01-9	Chrysene	30000	E
205-99-2	Benzo(b)fluoranthene	35000	E
207-08-9	Benzo(k)fluoranthene	11000	E J
50-32-8	Benzo(a)pyrene	43000	E
193-39-5	Indeno(1,2,3-cd)pyrene	7900	E J
53-70-3	Dibenzo(a,h)anthracene	3400	J
191-24-2	Benzo(g,h,i)perylene	9900	E

(1) Cannot be separated from Diphenylamine

10/27/09
2

KEY-URS082 S47

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DGP-326/26-28DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Matrix: (soil/water) SOILLab Sample ID: 0910490-002BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N34553.DLevel: (low/med) LOWDate Received: 09/23/09% Moisture: 17.1 Decanted: (Y/N) NDate Extracted: 09/25/09Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/12/09Injection Volume: 2 (μL)Dilution Factor: 200.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	60000	DJ
91-57-6	2-Methylnaphthalene	680000	D
208-96-8	Acenaphthylene	230000	D
83-32-9	Acenaphthene	38000	DJ
86-73-7	Fluorene	170000	D
85-01-8	Phenanthrene	570000	D
120-12-7	Anthracene	120000	D
206-44-0	Fluoranthene	110000	D
129-00-0	Pyrene	230000	D
56-55-3	Benzo (a) anthracene	64000	DJ
218-01-9	Chrysene	48000	DJ
205-99-2	Benzo (b) fluoranthene	24000	DJ
207-08-9	Benzo (k) fluoranthene	80000	U
50-32-8	Benzo (a) pyrene	43000	DJ
193-29-5	Indeno (1,2,3-cd) pyrene	80000	U
53-70-2	Dibenzo (a,h) anthracene	80000	U
191-24-2	Benzo (g,h,i) perylene	18000	DJ

(1) Cannot be separated from Diphenylamine

10/27/09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-106/67-69

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS052

Matrix: (soil/water) SOIL Lab Sample ID: 0814500-001A

Sample wt/vol: 5 (g/mL) G Lab File ID: A\A62818.D

Level: (low/med) LOW Date Received: 12/18/08

% Moisture: not dec. 19.5 Date Analyzed: 12/30/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	<u>8</u> <u>12</u>	U
108-88-3	Toluene	<u>8</u>	U
100-41-4	Ethylbenzene	<u>8</u>	U
1330-20-7	Xylene (total)	<u>8</u>	U

2/25/09
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KEY-URS052 S13

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISB-106/67-69

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS052

Matrix: (soil/water) SOIL

Lab Sample ID: 0814500-001B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 8\N28672.D

Level: (low/med) LOW

Date Received: 12/18/08

% Moisture: 19.5 Decanted: (Y/N) N

Date Extracted: 12/22/08

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 12/26/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	410	U	
91-57-6	2-Methylnaphthalene	410	U	
208-96-8	Acenaphthylene	410	U	
83-32-9	Acenaphthene	410	U	
86-73-7	Fluorene	410	U	
85-01-8	Phenanthrene	410	U	
120-12-7	Anthracene	410	U	
206-44-0	Fluoranthene	410	U	
129-00-0	Pyrene	410	U	
56-55-3	Benzo(a)anthracene	410	U	
218-01-9	Chrysene	410	U	
205-99-2	Benzo(b)fluoranthene	410	U	
207-08-9	Benzo(k)fluoranthene	410	U	
50-32-8	Benzo(a)pyrene	410	U	
193-39-5	Indeno(1,2,3-cd)pyrene	410	U	
53-70-3	Dibenzo(a,h)anthracene	410	U	
191-24-2	Benzo(g,h,i)perylene	410	U	

(1) Cannot be separated from Diphenylamine

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068

Matrix (soil/water): SOIL

Lab Sample ID: 0907790-002

Level (low/med): LOW

Date Received: 7/10/2009

% Solids: 84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.90		<u>15</u>	CV

8/21/09
2

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-A

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-001

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 90.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	30.1			CV

Comments:

Date Reported 10/5/2009

KEY-URS081 S11

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-B

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-002

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	5.0			CV

Comments:

Date Reported 10/5/2009

KEY-URS081 S12

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-C

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-003

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 89.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	6.7			CV

Comments:

Date Reported 10/5/2009

KEY-URS081 S13

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-D

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-004

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	2.9			CV

Comments:

Date Reported 10/5/2009

KEY-URS081 S14

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-E

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-005

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	2.2			CV

Comments:

Date Reported 10/5/2009

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-F

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081Matrix (soil/water): SOILLab Sample ID: 0910419-006Level (low/med): LOWDate Received: 9/22/2009% Solids: 91.8Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	1.5			CV

Comments:

Date Reported 10/5/2009

KEY-URS081 S16

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-G

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS081

Matrix (soil/water): SOIL

Lab Sample ID: 0910419-007

Level (low/med): LOW

Date Received: 9/22/2009

% Solids: 93.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	2.4			CV

Comments:

Date Reported 10/5/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-NW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-003Level (low/med): LOWDate Received: 7/10/2009% Solids: 85.8Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	1.4		1.5	CV

8/21/09
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Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-SW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-004Level (low/med): LOWDate Received: 7/10/2009% Solids: 84.1Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	4.0		15	CV

8/21/09

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-03-W

Lab Name: H2M LABS, INC.

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068

Matrix (soil/water): SOIL

Lab Sample ID: 0907790-005

Level (low/med): LOW

Date Received: 7/10/2009

% Solids: 81.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	1.6		5	CV

8/21/09

Comments:

Date Reported 8/3/2009

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISS-07

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water) SOIL

Lab Sample ID: 0907790-006B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N32598.D

Level: (low/med) LOW

Date Received: 07/10/09

% Moisture: 15.1 Decanted: (Y/N) N

Date Extracted: 07/14/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 07/23/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	11000	E
91-57-6	2-Methylnaphthalene	9200	E
208-96-8	Acenaphthylene	3600	
83-32-9	Acenaphthene	140	J
86-73-7	Fluorene	800	
85-01-8	Phenanthrene	7500	E
120-12-7	Anthracene	1900	
206-44-0	Fluoranthene	6200	
129-00-0	Pyrene	20000	E
56-55-3	Benzo(a)anthracene	7600	E
218-01-9	Chrysene	8000	E
205-99-2	Benzo(b)fluoranthene	7900	E
207-08-9	Benzo(k)fluoranthene	3700	
50-32-8	Benzo(a)pyrene	6500	E
193-39-5	Indeno(1,2,3-cd)pyrene	2500	
53-70-3	Dibenzo(a,h)anthracene	1100	
191-24-2	Benzo(g,h,i)perylene	3300	

(1) Cannot be separated from Diphenylamine

8/12/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-006BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N32645.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 15.1 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/24/09Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	Q
91-20-3	Naphthalene	14000	D
91-57-6	2-Methylnaphthalene	11000	D
208-96-8	Acenaphthylene	4000	D
83-32-9	Acenaphthene	3900	U
86-73-7	Fluorene	900	DJ
85-01-8	Phenanthrene	8900	D
120-12-7	Anthracene	1800	DJ
206-44-0	Fluoranthene	9100	D
129-00-0	Pyrene	20000	D
56-55-3	Benzo(a)anthracene	7900	D
218-01-9	Chrysene	10000	D
205-99-2	Benzo(b)fluoranthene	9200	D
207-08-9	Benzo(k)fluoranthene	4300	D J
50-32-8	Benzo(a)pyrene	8300	D
193-39-5	Indeno(1,2,3-cd)pyrene	3400	DJ
53-70-3	Dibenzo(a,h)anthracene	1300	DJ
191-24-2	Benzo(g,h,i)perylene	4400	D

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-07

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No. _____

SAS No.: _____

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-006Level (low/med): LOWDate Received: 7/10/2009% Solids: 84.9Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	20.1		<u>/</u>	P

Color Before: BROWN Clarity Before: _____Texture: MEDIUMColor After: YELLOW Clarity After: CLEAR

Artifacts: _____

8/12/09

Comments:

Date Reported 8/3/2009

KEY-URS068 S49

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-NE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-007BSample wt/vol: 15 (g/mL) GLab File ID: 9\N32599.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 16.1 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	9200	E
91-57-6	2-Methylnaphthalene	7600	E
208-96-8	Acenaphthylene	6100	
83-32-9	Acenaphthene	270	J
86-73-7	Fluorene	800	
85-01-8	Phenanthrene	4200	
120-12-7	Anthracene	2700	
206-44-0	Fluoranthene	8000	E
129-00-0	Pyrene	35000	E
56-55-3	Benzo(a)anthracene	11000	E
218-01-9	Chrysene	11000	E
205-99-2	Benzo(b)fluoranthene	12000	E
207-08-9	Benzo(k)fluoranthene	6400	
50-32-8	Benzo(a)pyrene	13000	E
193-39-5	Indeno(1,2,3-cd)pyrene	4300	
53-70-3	Dibenzo(a,h)anthracene	1800	
191-24-2	Benzo(g,h,i)perylene	4900	

(1) Cannot be separated from Diphenylamine

8/12/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-NEDL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-007BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N32646.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 16.1 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/24/09Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	12000	D
91-57-6	2-Methylnaphthalene	9200	D
208-96-8	Acenaphthylene	6900	DJ
83-32-9	Acenaphthene	7900	U
86-73-7	Fluorene	7900	U
85-01-8	Phenanthrene	5000	DJ
120-12-7	Anthracene	2300	DJ
206-44-0	Fluoranthene	13000	D
129-00-0	Pyrene	36000	D
56-55-3	Benzo (a) anthracene	13000	D
218-01-9	Chrysene	16000	D
205-99-2	Benzo (b) fluoranthene	16000	D
207-08-9	Benzo (k) fluoranthene	6700	DJ
50-32-8	Benzo (a) pyrene	18000	D
193-39-5	Indeno (1,2,3-cd) pyrene	6500	DJ
53-70-3	Dibenzo (a,h) anthracene	2500	DJ
191-24-2	Benzo (g,h,i) perylene	7300	DJ

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-07-NE

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.:

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-007Level (low/med): LOWDate Received: 7/10/2009% Solids: 83.9Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	14.6		/	P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts: _____

8/12/09
2

Comments:

Date Reported 8/3/2009

KEY-URS068 S50

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-NW

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-008BSample wt/vol: 15 (g/mL) GLab File ID: 9\N32597.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 7.69 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	1100	
91-57-6	2-Methylnaphthalene	880	
208-96-8	Acenaphthylene	310	J
83-32-9	Acenaphthene	360	U
86-73-7	Fluorene	120	J
85-01-8	Phenanthrene	850	
120-12-7	Anthracene	200	J
206-44-0	Fluoranthene	1200	
129-00-0	Pyrene	2100	
56-55-3	Benzo (a) anthracene	810	
218-01-9	Chrysene	1100	
205-99-2	Benzo (b) fluoranthene	870	
207-08-9	Benzo (k) fluoranthene	490	J
50-32-8	Benzo (a) pyrene	790	
193-39-5	Indeno (1,2,3-cd) pyrene	350	J
53-70-3	Dibenzo (a,h) anthracene	130	J
191-24-2	Benzo (g,h,i) perylene	380	

(1) Cannot be separated from Diphenylamine

8/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-07-NW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-008Level (low/med): LOWDate Received: 7/10/2009% Solids: 92.3Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	2.6		/	P

Color Before: BROWN

Clarity Before:

Texture:

MEDIUMColor After: YELLOW

Clarity After:

CLEAR

Artifacts:

8/12/09

Comments:

Date Reported 8/3/2009

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HISS-07-SE

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068

Matrix: (soil/water) SOIL

Lab Sample ID: 0907790-009B

Sample wt/vol: 15 (g/mL) G

Lab File ID: 9\N32600.D

Level: (low/med) LOW

Date Received: 07/10/09

% Moisture: 12.7 Decanted: (Y/N) N

Date Extracted: 07/14/09

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 07/23/09

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFE

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	20000	E
91-57-6	2-Methylnaphthalene	18000	E
208-96-8	Acenaphthylene	11000	E
83-32-9	Acenaphthene	720	
86-73-7	Fluorene	2400	
85-01-8	Phenanthrene	17000	E
120-12-7	Anthracene	5600	
206-44-0	Fluoranthene	13000	E
129-00-0	Pyrene	100000	E
56-55-3	Benzo (a) anthracene	30000	E
218-01-9	Chrysene	27000	E
205-99-2	Benzo (b) fluoranthene	23000	E
207-08-9	Benzo (k) fluoranthene	10000	E
50-32-8	Benzo (a) pyrene	22000	E
193-39-5	Indeno (1,2,3-cd) pyrene	11000	E
53-70-3	Dibenzo (a, h) anthracene	4900	
191-24-2	Benzo (g, h, i) perylene	16000	E

(1) Cannot be separated from Diphenylamine

8/12/09
2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-SEDL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-009BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N32647.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 12.7 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/24/09Injection Volume: 2 (μL)Dilution Factor: 50.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	30000	D
91-57-6	2-Methylnaphthalene	25000	D
208-96-8	Acenaphthylene	12000	DJ
83-32-9	Acenaphthene	19000	U
86-73-7	Fluorene	19000	U
85-01-8	Phenanthrene	25000	D
120-12-7	Anthracene	5800	DJ
206-44-0	Fluoranthene	36000	D
129-00-0	Pyrene	83000	D
56-55-3	Benzo (a) anthracene	30000	D
218-01-9	Chrysene	41000	D
205-99-2	Benzo (b) fluoranthene	34000	D
207-08-9	Benzo (k) fluoranthene	11000	D/S
50-32-8	Benzo (a) pyrene	31000	D
193-39-5	Indeno (1,2,3-cd) pyrene	12000	DJ
53-70-3	Dibenzo (a,h) anthracene	4300	DJ
191-24-2	Benzo (g,h,i) perylene	14000	DJ

(1) Cannot be separated from Diphenylamine

8/12/09

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-07-SE

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-009Level (low/med): LOWDate Received: 7/10/2009% Solids: 87.3Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	16.1		/	P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOWClarity After: CLEAR

Artifacts:

8/12/09

Comments:

Date Reported 8/3/2009

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-SW

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-010BSample wt/vol: 15 (g/mL) GLab File ID: 9\N32601.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 14.8 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/23/09Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	94000	E
91-57-6	2-Methylnaphthalene	91000	E
208-96-8	Acenaphthylene	18000	E
83-32-9	Acenaphthene	2600	
86-73-7	Fluorene	5300	
85-01-8	Phenanthrene	65000	E
120-12-7	Anthracene	12000	E
206-44-0	Fluoranthene	32000	E
129-00-0	Pyrene	420000	E
56-55-3	Benzo (a) anthracene	140000	E
218-01-9	Chrysene	98000	E
205-99-2	Benzo (b) fluoranthene	45000	E
207-08-9	Benzo (k) fluoranthene	19000	E
50-32-8	Benzo (a) pyrene	15000	E
193-39-5	Indeno (1,2,3-cd) pyrene	25000	E
53-70-3	Dibenzo (a,h) anthracene	9900	E
181-24-2	Benzo (g,h,i) perylene	33000	E

(1) Cannot be separated from Diphenylamine

8/12/09
bz

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

HISS-07-SWDL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS068Matrix: (soil/water) SOILLab Sample ID: 0907790-010BDLSample wt/vol: 15 (g/mL) GLab File ID: 9\N32774.DLevel: (low/med) LOWDate Received: 07/10/09% Moisture: 14.8 Decanted: (Y/N) NDate Extracted: 07/14/09Concentrated Extract Volume: 500 (μL)Date Analyzed: 07/30/09Injection Volume: 2 (μL)Dilution Factor: 100.00GPC Cleanup: (Y/N) Y pH: 7.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(μg/L or μg/Kg) UG/KG Q

91-20-3	Naphthalene	160000	D
91-57-6	2-Methylnaphthalene	160000	D
208-96-8	Acenaphthylene	24000	DJ
83-32-9	Acenaphthene	39000	U
86-73-7	Fluorene	39000	U
85-01-8	Phenanthrene	130000	D
120-12-7	Anthracene	15000	DJ
206-44-0	Fluoranthene	180000	D
129-00-0	Pyrene	380000	D
56-55-3	Benzo(a)anthracene	120000	D
218-01-9	Chrysene	160000	D
205-99-2	Benzo(b)fluoranthene	110000	D
207-08-9	Benzo(k)fluoranthene	36000	D/S
50-32-8	Benzo(a)pyrene	31000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	43000	D
53-70-3	Dibenzo(a,h)anthracene	16000	DJ
191-24-2	Benzo(g,h,i)perylene	55000	D

(1) Cannot be separated from Diphenylamine

5/12/09
2

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-07-SW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907790-010Level (low/med): LOWDate Received: 7/10/2009% Solids: 85.2Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	13.6		<u>/</u>	P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

CLEAR

Artifacts:

8/12/09

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-14

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-006Level (low/med): LOWDate Received: 7/13/2009% Solids: 93.7Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.095		<u>15</u>	CV

8/21/09
a

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-14-NE

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-007Level (low/med): LOWDate Received: 7/13/2009% Solids: 92.4Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.11		<u>JS</u>	CV

8/21/09
~

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-14-NW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-008Level (low/med): LOWDate Received: 7/13/2009% Solids: 86.1Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.22		<u>15</u>	CV

8/21/09

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-14-SE

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-009Level (low/med): LOWDate Received: 7/13/2009% Solids: 94.2Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.090		<u>15</u>	CV

8/21/09

Comments:

Date Reported 8/3/2009

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO

HISS-14-SW

Lab Name: H2M LABS, INC.Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URS068Matrix (soil/water): SOILLab Sample ID: 0907839-010Level (low/med): LOWDate Received: 7/13/2009% Solids: 92.3Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.14		15	CV

7/13/09

Comments:

Date Reported 8/3/2009

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-01

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812088-001A

Sample wt/vol:

5

(g/mL) G

Lab File ID:

A\A61564.D

Level: (low/med)

LOW

Date Received:

10/14/08

% Moisture: not dec.

11.1

Date Analyzed:

10/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>12</u>	<u>U</u>
108-88-3	Toluene	<u>130</u>	
100-41-4	Ethylbenzene	<u>130</u>	
108-38-3/106-42-3	m,p-Xylene	<u>1100</u> 600	ED
95-47-6	o-Xylene	<u>750</u> 370	ED

1/23/09

KEY-URS033 S16

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-01DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOIL

Lab Sample ID: 0812088-001ADL

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A51566.D

Level: (low/med)

LOW

Date Received: 10/14/08

% Moisture: not dec.

11.1

Date Analyzed: 10/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	56	U
108-88-3	Toluene	170	D
100-41-4	Ethylbenzene	230	D
108-38-3/106-42-3	m,p-Xylene	1100	D
95-47-6	o-Xylene	750	D

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-01

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Matrix: (soil/water) SOILLab Sample ID: 0812088-001BSample wt/vol: 15 (g/mL) GLab File ID: A\C43303.DLevel: (low/med) LOWDate Received: 10/14/08% Moisture: 11.1 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/21/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 5.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	42000	E	E
91-57-6	2-Methylnaphthalene	52000	E	E
208-96-8	Acenaphthylene	21000	E	E
83-32-9	Acenaphthene	4300		
86-73-7	Fluorene	20000	E	E
85-01-8	Phenanthrene	60000		E
120-12-7	Anthracene	18000		E
206-44-0	Fluoranthene	18000		E
129-00-0	Pyrene	28000		E
56-55-3	Benzo(a)anthracene	13000	E	E
218-01-9	Chrysene	11000		
205-99-2	Benzo(b)fluoranthene	6100		
207-08-9	Benzo(k)fluoranthene	2400		J
50-32-8	Benzo(a)pyrene	8200		
193-39-5	Indeno(1,2,3-cd)pyrene	1600		J
53-70-3	Dibenzo(a,h)anthracene	700		J
191-24-2	Benzo(g,h,i)perylene	1700		J

(1) Cannot be separated from Diphenylamine

11/26/09

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-01DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Matrix: (soil/water) SOILLab Sample ID: 0812088-001BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43313.DLevel: (low/med) LOWDate Received: 10/14/08% Moisture: 11.1 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/22/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) YpH: 5.0Extraction: (Type) PFEEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	64000	D
91-57-6	2-Methylnaphthalene	80000	D
208-96-8	Acenaphthylene	28000	D
83-32-9	Acenaphthene	4400	DJ
86-73-7	Fluorene	27000	D
85-01-8	Phenanthrene	84000	D
120-12-7	Anthracene	22000	D
206-44-0	Fluoranthene	24000	D
129-00-0	Pyrene	41000	D
56-55-3	Benzo(a)anthracene	14000	D
218-01-9	Chrysene	13000	D
205-99-2	Benzo(b)fluoranthene	6200	DJ
207-08-9	Benzo(k)fluoranthene	7400	U
50-32-8	Benzo(a)pyrene	9100	D
193-39-5	Indeno(1,2,3-cd)pyrene	2800	DJ
53-70-3	Dibenzo(a,h)anthracene	7400	U
191-24-2	Benzo(g,h,i)perylene	3600	DJ

(1) Cannot be separated from Diphenylamine

1/26/09
a

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
477 Congress Street
Portland, ME 04101
Attn To : Thomas Plante

Lab No. : 0812088-001

Sample Information...
Type : Soil

Origin:

Client ID. : ISS-01 (5524+5524A)

Collected 10/13/2008 12:00:00 PM
Received 10/14/2008 10:00:00 AM
Collected By URS
Copies To Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Hexane Extractable Material (O&G)	1170		1	mg/Kg-dry	E1664Modified	10/27/2008 9:20 AM
pH	5.8		1	pH Units	SW9045	10/15/2008 8:30 AM
Percent Moisture	11.1		1	wt%	D2216	10/16/2008 4:02 PM

1/26/09
2

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/3/2008

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-02

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOIL

Lab Sample ID: 0812088-002A

Sample wt/vol: 5

(g/mL) G

Lab File ID: A\A61565.D

Level: (low/med)

LOW

Date Received: 10/14/08

% Moisture: not dec.

4.18

Date Analyzed: 10/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (µL)

Soil Aliquot Volume _____ (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
71-43-2	Benzene	<u>810</u>	U
108-88-3	Toluene	31	
100-41-4	Ethylbenzene	65	
108-38-3/106-42-3	m,p-Xylene	<u>660</u> 320	E-D
95-47-6	o-Xylene	<u>700</u> 300	E-D

1/26/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-02DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812088-002ADLSample wt/vol: 5(g/mL) G

Lab File ID:

A\A61567.D

Level: (low/med)

LOW

Date Received:

10/14/08

% Moisture: not dec.

4.18

Date Analyzed:

10/21/08GC Column: ZB-624ID: .18 (mm)

Dilution Factor:

5.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	<u>2852</u>	U
108-88-3	Toluene	36	D
100-41-4	Ethylbenzene	120	D
108-38-3/106-42-3	m,p-Xylene	660	D
95-47-6	o-Xylene	700	D

1/26/09
2

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-02

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water) SOIL

Lab Sample ID: 0812088-002B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43306.D

Level: (low/med) LOW

Date Received: 10/14/08

% Moisture: 4.18 Decanted: (Y/N) N

Date Extracted: 10/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 10/21/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.0

Extraction: (Type) PFEF

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	50000	E
91-57-6	2-Methylnaphthalene	62000	E
208-96-8	Acenaphthylene	27000	E
83-32-9	Acenaphthene	5000	
86-73-7	Fluorene	22000	E
85-01-8	Phenanthrene	56000	E
120-12-7	Anthracene	19000	E
206-44-0	Fluoranthene	19000	E
129-00-0	Pyrene	31000	E
56-55-3	Benzo(a)anthracene	15000	E
218-01-9	Chrysene	13000	E
205-99-2	Benzo(b)fluoranthene	7600	
207-08-9	Benzo(k)fluoranthene	3200	J
50-32-8	Benzo(a)pyrene	10000	
193-39-5	Indeno(1,2,3-cd)pyrene	1900	J
53-70-3	Dibenzo(a,h)anthracene	810	
191-24-2	Benzo(g,h,i)perylene	1900	J

(1) Cannot be separated from Diphenylamine

1/26/09

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-02DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Matrix: (soil/water) SOILLab Sample ID: 0812088-002BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43316.DLevel: (low/med) LOWDate Received: 10/14/08% Moisture: 4.18 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/22/08Injection Volume: 2 (μL)Dilution Factor: 10.00GPC Cleanup: (Y/N) Y pH: 5.0Extraction: (Type) PFEK

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	77000	D
91-57-6	2-Methylnaphthalene	94000	D
208-96-8	Acenaphthylene	42000	D
83-32-9	Acenaphthene	5400	DJ
86-73-7	Fluorene	30000	D
85-01-8	Phenanthrene	83000	D
120-12-7	Anthracene	23000	D
206-44-0	Fluoranthene	27000	D
129-00-0	Pyrene	41000	D
56-55-3	Benzo(a)anthracene	16000	D
218-01-9	Chrysene	16000	D
205-99-2	Benzo(b)fluoranthene	7900	D
207-08-9	Benzo(k)fluoranthene	3000	DJ
50-32-8	Benzo(a)pyrene	12000	D
193-39-5	Indeno(1,2,3-cd)pyrene	4000	DJ
53-70-3	Dibenzo(a,h)anthracene	1600	DJ
191-24-2	Benzo(g,h,i)perylene	5000	DJ

(1) Cannot be separated from Diphenylamine

1/20/09
re

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
477 Congress Street
Portland, ME 04101
Attn To : Thomas Plante

Lab No. : 0812088-002

Sample Information...
Type : Soil

Origin:

Client ID. : ISS-02 (5521+5521A)

Collected 10/13/2008 12:00:00 PM
Received 10/14/2008 10:00:00 AM
Collected By URS
Copies To Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Hexane Extractable Material (O&G)	1670		1	mg/Kg-dry	E1664Modified	10/27/2008 9:30 AM
pH	6.8		1	pH Units	SW9045	10/15/2008 8:32 AM
Percent Moisture	4.2		1	wt%	D2216	10/16/2008 4:03 PM

1/26/09
2

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/3/2008

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-03

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOIL

Lab Sample ID:

0812088-003A

Sample wt/vol: 5

(g/mL) G

Lab File ID:

A\A61563.D

Level: (low/med)

LOW

Date Received:

10/14/08

% Moisture: not dec.

7.49

Date Analyzed:

10/21/08

GC Column: ZB-624

ID: .18 (mm)

Dilution Factor:

1.00

Soil Extract Volume:

(μ L)

Soil Aliquot Volume

(μ L)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μ g/L or μ g/Kg) <u>UG/KG</u>	Q
71-43-2	Benzene	6.0	J
108-88-3	Toluene	150	
100-41-4	Ethylbenzene	520 540	PD
108-38-3/106-42-3	m,p-Xylene	660 630	PD
95-47-6	o-Xylene	1000 720	PD

1/23/09
2

VOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-03DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOILLab Sample ID: 0812088-003ADLSample wt/vol: 5(g/mL) GLab File ID: A\A61619.D

Level: (low/med)

LOWDate Received: 10/14/08

% Moisture: not dec.

7.49Date Analyzed: 10/24/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 10.00

Soil Extract Volume: _____

(μL)

Soil Aliquot Volume _____

(μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	54 110	U
108-88-3	Toluene	74	D
100-41-4	Ethylbenzene	500	D
108-38-3/106-42-3	m,p-Xylene	660	D
95-47-6	o-Xylene	1000	D

1/23/09
2

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-03

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Matrix: (soil/water) SOILLab Sample ID: 0812088-003BSample wt/vol: 15 (g/mL) GLab File ID: A\C43304.DLevel: (low/med) LOWDate Received: 10/14/08% Moisture: 7.49 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/21/08Injection Volume: 2 (μL)Dilution Factor: 1.00GPC Cleanup: (Y/N) YpH: 5.0Extraction: (Type) PPEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	60000	E
91-57-6	2-Methylnaphthalene	89000	E
208-96-8	Acenaphthylene	30000	E
83-32-9	Acenaphthene	12000	E
86-73-7	Fluorene	28000	E
85-01-8	Phenanthrene	70000	E
120-12-7	Anthracene	21000	E
206-44-0	Fluoranthene	20000	E
129-00-0	Pyrene	30000	E
56-55-3	Benzo(a)anthracene	15000	E
218-01-9	Chrysene	12000	E
205-99-2	Benzo(b)fluoranthene	6200	
207-08-9	Benzo(k)fluoranthene	2800	J
50-32-8	Benzo(a)pyrene	8700	
193-39-5	Indeno(1,2,3-cd)pyrene	1700	J
53-70-3	Dibenzo(a,h)anthracene	710	J
191-24-2	Benzo(g,h,i)perylene	1600	J

(1) Cannot be separated from Diphenylamine

1/26/09
a

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-03DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water) SOIL

Lab Sample ID: 0812088-003BDL

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43314.D

Level: (low/med) LOW

Date Received: 10/14/08

% Moisture: 7.49 Decanted: (Y/N) N

Date Extracted: 10/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 10/22/08

Injection Volume: 2 (μL)

Dilution Factor: 20.00

GPC Cleanup: (Y/N) Y pH: 5.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	110000	D
91-57-6	2-Methylnaphthalene	150000	D
208-96-8	Acenaphthylene	52000	D
83-32-9	Acenaphthene	14000	D
86-73-7	Fluorene	42000	D
85-01-8	Phenanthrene	120000	D
120-12-7	Anthracene	28000	D
206-44-0	Fluoranthene	32000	D
129-00-0	Pyrene	48000	D
56-55-3	Benzo(a)anthracene	17000	D
218-01-9	Chrysene	16000	D
205-99-2	Benzo(b)fluoranthene	6200	DJ
207-08-9	Benzo(k)fluoranthene	3500	DJ
50-32-8	Benzo(a)pyrene	11000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	3000	DJ
53-70-3	Dibenzo(a,h)anthracene	14000	U
191-24-2	Benzo(g,h,i)perylene	3800	DJ

(1) Cannot be separated from Diphenylamine

1/26/09
2

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
477 Congress Street
Portland, ME 04101
Attn To : Thomas Plante

Lab No. : 0812088-003

Sample Information...
Type : Soil

Origin:

Client ID. : ISS-03 (5522+5523)

Collected 10/13/2008 12:00:00 PM
Received 10/14/2008 10:00:00 AM
Collected By URS
Copies To Original
CC

Parameter(s)	Results	Qualifier	D.F.	Units	Method Number	Analyzed
Hexane Extractable Material (O&G)	2840		1	mg/Kg-dry	E1664Modified	10/27/2008 9:40 AM
pH	7.7		1	pH Units	SW9045	10/15/2008 8:34 AM
Percent Moisture	7.5		1	wt%	D2216	10/16/2008 4:04 PM

1/22/09
2

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/3/2008

Joann M. Slavin

Laboratory Manager

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-04

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS033

Matrix: (soil/water) SOIL Lab Sample ID: 0812088-004A

Sample wt/vol: 5 (g/mL) G Lab File ID: A\A61562.D

Level: (low/med) LOW Date Received: 10/14/08

% Moisture: not dec. 8.64 Date Analyzed: 10/21/08

GC Column: ZB-624 ID: .18 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (μL) Soil Aliquot Volume _____ (μL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
71-43-2	Benzene	25	
108-88-3	Toluene	1000 990	E D
100-41-4	Ethylbenzene	3200 1200	E D
108-38-3/106-42-3	m,p-Xylene	12000 1800	E D
95-47-6	o-Xylene	6800 1000	E D

1/23/09

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-04DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water)

SOILLab Sample ID: 0812088-004ADLSample wt/vol: 4(g/mL) GLab File ID: A\A61603.D

Level: (low/med)

MEDDate Received: 10/14/08

% Moisture: not dec.

8.64Date Analyzed: 10/23/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 2.00

Soil Extract Volume: _____

10000 (µL)Soil Aliquot Volume 100 (µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) <u>UG/KG</u>	<u>Q</u>
71-43-2	Benzene	1400	U
108-88-3	Toluene	1000	D <u>J</u>
100-41-4	Ethylbenzene	3200	D
108-38-3/106-42-3	m,p-Xylene	12000	D
95-47-6	o-Xylene	6800	D

1/23/09

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ISS-04

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033

Matrix: (soil/water) SOIL

Lab Sample ID: 0812088-004B

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43305.D

Level: (low/med) LOW

Date Received: 10/14/08

% Moisture: 8.64 Decanted: (Y/N) N

Date Extracted: 10/15/08

Concentrated Extract Volume: 1000 (μL)

Date Analyzed: 10/21/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.0

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg)	UG/KG	Q
91-20-3	Naphthalene	87000	E	E
91-57-6	2-Methylnaphthalene	86000	E	E
208-96-8	Acenaphthylene	31000	E	E
83-32-9	Acenaphthene	6500		
86-73-7	Fluorene	24000	E	E
85-01-8	Phenanthrene	66000		E
120-12-7	Anthracene	23000		E
206-44-0	Fluoranthene	22000		E
129-00-0	Pyrene	30000		E
56-55-3	Benzo(a)anthracene	19000		E
218-01-9	Chrysene	18000	E	E
205-99-2	Benzo(b)fluoranthene	7400		
207-08-9	Benzo(k)fluoranthene	4500		J
50-32-8	Benzo(a)pyrene	11000		
193-39-5	Indeno(1,2,3-cd)pyrene	2000		J
53-70-3	Dibenzo(a,h)anthracene	890		
191-24-2	Benzo(g,h,i)perylene	1900		↓

(1) Cannot be separated from Diphenylamine

1/20/09
m

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ISS-04DL

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Matrix: (soil/water) SOILLab Sample ID: 0812088-004BDLSample wt/vol: 15 (g/mL) GLab File ID: A\C43315.DLevel: (low/med) LOWDate Received: 10/14/08% Moisture: 8.64 Decanted: (Y/N) NDate Extracted: 10/15/08Concentrated Extract Volume: 1000 (μL)Date Analyzed: 10/22/08Injection Volume: 2 (μL)Dilution Factor: 20.00GPC Cleanup: (Y/N) Y pH: 6.0Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) UG/KG	Q
91-20-3	Naphthalene	140000	D
91-57-6	2-Methylnaphthalene	130000	D
208-96-8	Acenaphthylene	52000	D
83-32-9	Acenaphthene	7700	DJ
86-73-7	Fluorene	36000	D
85-01-8	Phenanthrene	110000	D
120-12-7	Anthracene	32000	D
206-44-0	Fluoranthene	36000	D
129-00-0	Pyrene	49000	D
56-55-3	Benzo(a)anthracene	21000	D
218-01-9	Chrysene	21000	D
205-99-2	Benzo(b)fluoranthene	8000	DJ
207-08-9	Benzo(k)fluoranthene	3900	DJ
50-32-8	Benzo(a)pyrene	12000	DJ
193-39-5	Indeno(1,2,3-cd)pyrene	3700	DJ
53-70-3	Dibenzo(a,h)anthracene	14000	U
191-24-2	Benzo(g,h,i)perylene	4600	DJ

(1) Cannot be separated from Diphenylamine

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 . FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
477 Congress Street
Portland, ME 04101
Attn To : Thomas Plante

Lab No. : 0812088-004

Sample Information...
Type : Soil

Origin:

Client ID. : ISS-04 (5525+5525A)

Collected 10/13/2008 12:00:00 PM
Received 10/14/2008 10:00:00 AM
Collected By URS
Copies To Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Hexane Extractable Material (O&G)	2430		1	mg/Kg-dry	E1664Modified	10/27/2008 9:50 AM
pH	7.0		1	pH Units	SW9045	10/15/2008 8:36 AM
Percent Moisture	8.6		1	wt%	D2216	10/16/2008 4:05 PM

1/26/09
e

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 11/3/2008

Joann M. Slavin

Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Michael Akerbergs

Lab No. : 0811236-001

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-01/22'-24'

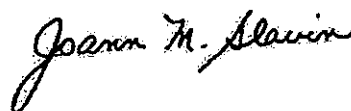
Collected : 9/15/2008 11:50:00 AM
Received : 9/19/2008 4:20:00 PM
Collected By URS
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	6.8		1	wt%	D2216	09/22/2008 11:09 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0811236-002

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-01/44'-46'

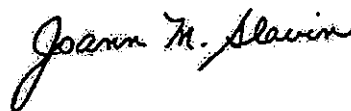
Collected : 9/16/2008 12:30:00 PM
Received : 9/19/2008 4:20:00 PM
Collected By URS
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	20.2		1	wt%	D2216	09/22/2008 11:10 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0811236-003

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-02/20'-22'

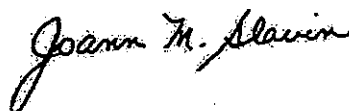
Collected : 9/19/2008 10:20:00 AM
Received : 9/19/2008 4:20:00 PM
Collected By URS
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	3.8		1	wt%	D2216	09/22/2008 11:11 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040, FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0811236-004

Sample Information...
Type : Soil

Origin:

Client ID. : ISS-02/32'-34'

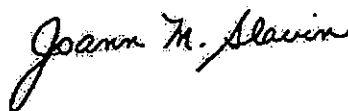
Collected : 9/19/2008 11:25:00 AM
Received : 9/19/2008 4:20:00 PM
Collected By URS
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	19.1		1	wt%	D2216	09/22/2008 11:12 AM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203
Attn To : Michael Akerbergs

Lab No. : 0811323-001

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-03/18'-20'

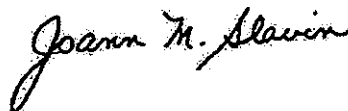
Collected : 9/22/2008 9:30:00 AM
Received : 9/23/2008 1:05:00 PM
Collected By URS99
Copies To : Original
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	13.6		1	wt%	D2216	09/26/2008 5:01 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Michael Akerbergs

Lab No. : 0811323-002

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-03/32'-34'

Collected : 9/22/2008 11:00:00 AM

Received : 9/23/2008 1:05:00 PM

Collected By URS99

Copies To : Original

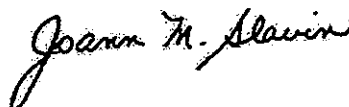
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	15.3		1	wt%	D2216	09/26/2008 5:02 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/9/2008



Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOHID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Michael Akerbergs

Lab No. : 0811794-001

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-04/18-20

Collected : 10/4/2008 9:10:00 AM

Received : 10/6/2008 2:30:00 PM

Collected By URS99

Copies To : Original

CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	4.4		1	wt%	D2216	10/08/2008 5:03 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/17/2008

Joann M. Slavin

Laboratory Manager

H2M LABS, INC.

575 Broad Hollow Road, Melville NY 11747
(631) 694-3040 FAX: (631) 420-8436 NYSDOH ID# 10478

LABORATORY RESULTS

URS Corporation
201 Willowbrook Blvd.
Wayne, NJ 14203

Attn To : Michael Akerbergs

Lab No. : 0811794-002

Sample Information...

Type : Soil

Origin:

Client ID. : ISS-04/32-34

Collected : 10/4/2008 10:00:00 AM

Received : 10/6/2008 2:30:00 PM

Collected By URS99

Copies To : Original

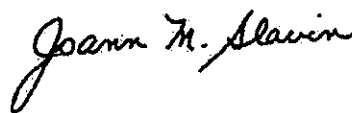
CC

<u>Parameter(s)</u>	<u>Results</u>	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>	<u>Method Number</u>	<u>Analyzed</u>
Percent Moisture	15.3		1	wt%	D2216	10/08/2008 5:04 PM

Qualifiers: E - Value above quantitation range
D - Results for Dilution

D.F. = Dilution Factor

Date Reported : 10/17/2008



Laboratory Manager

ATTACHMENT B

SUPPORT DOCUMENTATION



Peter Fairbanks/Buffalo/URSCorp

03/05/2009 03:43 PM

To Jennifer Aracri <jaracri@h2m.com>

cc Kevin Connare/Buffalo/URSCorp@URSCORP, Mary
Bitka/Buffalo/URSCorp@URSCORP, Jim
Stachowski/Buffalo/URSCorp@URSCORP

bcc

Subject Hempstead IRM/PDI and Qrtly GWs - Data Review
Comments for SDG Nos. KEY-URS029 to -URS061

Jennifer,

Please address the following data review comments and submit the requested information to the URS Corporation (Buffalo, NY Office) by March 13, 2009, so that the data review may be completed. All data resubmittals should be on CD-ROM as addendums to the original data packages.

A. BTEX Data (SW8260B)

1. For soil SDG Nos. KEY-URS032, -033, -035, -037, -038, -041, -043, -046, -049, -052 to -054, -056, and -060, the low-level soil PQLs should be nominally based on 10 ug/kg, not 5 ug/kg, since the low-point of the associated ICALs is 10 ppb on column [i.e., 04/23/08 (file nos. F34780-784.D); 08/15/08 (file nos. A60585-589.D); and 01/28/09 (file nos. G0027-33.D)]. Also, the medium-level soil PQLs should be nominally based on 1,200 ug/kg, not 620 ug/kg, since the low-point of the associated ICALs is 10 ppb on column [i.e., 01/09/09 (file nos. A62907, -910 to -913) and 01/31/09 (file nos. A63240-244.D)]. Please confirm and resubmit the Form Is to reflect the PQLs revised accordingly, as well as adding 'J' qualifiers to detected results below the revised PQLs.

2. For SDG Nos. KEY-URS058 and -061, the low-level aqueous PQLs should be nominally based on 10 ug/L, not 1 ug/L, since the low-point of the associated ICALs is 10 ppb on column [i.e., 01/09/09 (file nos. A62907, -910 to -913) and 02/04/09 (file nos. G0084-89.D), respectively]. Please confirm and resubmit the Form Is to reflect the PQLs revised accordingly, as well as adding 'J' qualifiers to detected results below the revised PQLs.

3. For SDG Nos. KEY-URS057 and -059, the low-level aqueous PQLs are reported as 1 ug/L, but the low-point of the associated ICALs is 10 ppb on column [i.e., 01/09/09 (file nos. A62907, -910 to -913) and 01/31/09 (file nos. A63240-44.D)]. Since these quarterly GW samples require the 1 ug/L PQL, the ICALs will need to be re-compiled and the sample/QC/calibration results will need to be re-quantitated. Please confirm and resubmit the data packages to reflect the revised concentrations.

Of particular note, there are some instances where current LFB/method blank manual calculations do not agree with the lab results [e.g., LFB-011409: Benzene 56 ug/L (URS); 52 ug/L (Lab)]. Please take these into account when re-compiling the ICALs.

4. For SDG No. KEY-URS032, soil sample DGP-253/30-35 appears to have exhibited carryover from soil sample AREA E/OAE/S-1. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between these two samples in order to rule out carryover.

5. For SDG No. KEY-URS043, the reference spectra (CCAL file no. A62096.D) in the sample raw data do not reflect the correct compounds (i.e., BTEX). Instead, they reflect methylcyclohexane, toluene-d8, chlorobenzene, and styrene, respectively. Please resubmit the reference spectra to reflect the correct compounds.

6. For SDG No. KEY-URS043, soil sample DGP-208/28.5-30 appears to have exhibited carryover for xylene from soil sample DGP-206/25-28. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between these two samples in order to rule out carryover.

7. For SDG No. KEY-URS044, the Form 5 for file no A62402.D is missing m/z 174 and 175. Please

resubmit.

8. For SDG No. KEY-URS046, the ion abundance criteria for m/z 75 on Form 5 for file no. A62475.D is 30.0 - 80.0% (CLP). The criteria should be 30.0 - 60.0%.

9. For SDG No. KEY-URS048, the xylene result from the undiluted analysis of sample HISB-106/GW/30-34 should be qualified "E" on the Form 1, because the on-column concentration for o-xylene (i.e., 206 ppb) exceeded the linear range of calibration (i.e., 200 ppb). Please resubmit the Form 1.

10. For SDG Nos. KEY-URS047, -048, -050, -051, -055, -057, and -058, many of the GW sample VOA vials were received at the lab with headspace, including some trip blanks. The headspace ranged from 1.5 mm to 25 mm (which is quite significant). In conversation with the field technicians, they noted that some samples exhibited effervescence during collection into the pre-preserved (i.e., HCl) VOA vials, but others didn't (may have developed headspace during sample transit back to lab). The apparent nature of the silty material present in the samples (i.e., high Ca content), combined with the HCl preserved vials was likely the cause of the headspace problem. The field techs went on to say potentially bad vial seals caused by the high silt content was not an issue.

But, that doesn't explain the headspace present in the trip blanks. The field techs mentioned the trip blanks were stored in the on-site trailer until shipment back to the lab, which what is typically done in the field. They shouldn't have developed any headspace. Had the trip blank vials froze, then perhaps headspace could have developed, but that apparently wasn't the case. Any further thoughts?

In hindsight, the field techs should have notified our office immediately when effervescence occurred, so that we may have instructed the lab to send unpreserved VOA vials to the site. Also, the lab probably should have notified the URS Buffalo office of this problem as well, especially due to the high number of affected samples. Please make sure this is done in the future.

11. For SDG No. KEY-URS050, the lab over-truncated the field sample IDs on the reporting forms. Consequently, samples from location HISB-108 and HISB-109 cannot be clearly distinguished from their counterpart depth intervals (e.g., GW/30-34 listed for both sample locations). Please revise the sample IDs on all affected reporting forms so that they are clearly distinguishable from each other (e.g., 108/GW/30-34, 109/GW/30-34).

12. For SDG No. KEY-URS051, the ID for LFB-122308 [as referenced on GC/MS VOC log (page V189)] is incorrectly listed as LFB-12308 on all reporting forms. Please resubmit all affected reporting forms.

13. For SDG No. KEY-URS054, the Form 1 for medium level method blank VBLK012109 does not reference the correct sample volume (i.e., 4 gms), and no soil extract/aliquot volumes were listed. Please resubmit the method blank Form 1 with the appropriate revisions.

14. For SDG No. KEY-URS055, the toluene exceedance for LFB-011209 was not documented in the case narrative. Please resubmit.

15. For SDG No. KEY-URS058, a Form 3 for LFB-011909 was not included in the main data package. Please resubmit.

16. For SDG No. KEY-URS060, the manually calculated results for LFB-013109 do not agree with those results reported on Form 1 and 3 [e.g., Benzene: 5,700 ug/kg (URS); 5,300 ug/kg (Lab)]. Please confirm and resubmit the LFB results revised accordingly.

In addition, for soil sample DGP-283/25-30, the total xylene result was reported as 5 ug/kg, but the quant report indicates that only o-xylene was detected (at 2 ug/kg). Please clarify and resubmit all necessary reporting forms.

17. For SDG No. KEY-URS061, the on-column results for LFB-021009 do not match the Form 1s

[e.g., Toluene 43 ug/L (Form 1); 48 ug/L (quant report)]. Also, the manually calculated on-column surrogate results for VBLK021009 do not agree with the lab [e.g., 1,2-DCA-d4: 55.5 (URS); 51.5 (Lab)]. Please clarify and resubmit the LFB/VBLK results reported correctly.

B. PAH Data (SW8270C)

1. For SDG No. KEY-URS044, the case narrative references LFB-29247. Instead, it should reference LFB-29217. Please revise the case narrative.
2. For SDG No. KEY-URS046, soil sample AREA E/S-7 appears to have exhibited carryover from soil sample AREA E/S-6 for several PAHs. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between these two samples in order to rule out carryover.
3. Please note for SDG No. KEY-URS047, the Form 8 for CCAL file N28362.D in the main data package did not include IS area counts and retention times for the CCAL. However, the Form 8 in the sample summary package did contain the appropriate information.
4. For SDG No. KEY-URS047, sample HISB-102/GW/60-64 appears to have exhibited carryover from sample HISB-102/GW/50-54 for naphthalene and 2-methylnaphthalene. In addition, sample HISB-105/GW/70-74 appears to have exhibited carryover from sample HISB-105/GW/60-64 for the same PAHs. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between the affected samples in order to rule out carryover.
5. For SDG No. KEY-URS049, soil sample AREA E/S-13 appears to have exhibited carryover from soil sample AREA E/S-12 for several PAHs. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between these two samples in order to rule out carryover.
6. For SDG No. KEY-URS051, sample HISB-105-2/GW/60-64-DL was analyzed 5 minutes past the 12-hour DFTPP. Note this non-conformance in the case narrative.

Also, sample HISB-105-2/GW/70-74 appears to have exhibited carryover from sample HISB-105-2/GW/60-64 for naphthalene. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between the affected samples in order to rule out carryover.

7. For SDG No. KEY-URS053, soil sample DGP-251/20-22 appears to have exhibited carryover from soil sample DGP-251/10-13 for several PAHs. Please confirm, and explain in the case narrative why an instrument blank was not analyzed between these two samples in order to rule out carryover.
8. For SDG No. KEY-URS056, the IS exceedances for soil sample DGP-272/24-25 were not documented in the case narrative. Please resubmit.

C. Metals/CN Data (SW6010B/7471A/9010/9014)

1. The mercury (Hg) instrument detection limit (IDL) is reported as 0.1 ug/L on the Form 10s. Yet, some soil sample results have on-instrument concentrations >0.1 ug/L, but the sample was qualified "U" [e.g., KEY-URS046: AREA E/S-6 (0.129 ug/L on instrument); reported result is 0.029 U mg/kg]. The non-detect result for this sample equates to an IDL of approximately 0.13 ug/L. Please clarify. This potentially affects several SDGs (i.e., KEY-URS032, -URS038, -URS041, -URS046, -URS049,.....).

D. Wet Chemistry Data

1. For total phenol, the lab does not report detections <5.0 ug/L at the instrument level (equates to an absorbance of 0.011) per the raw data. Yet, the lab reports non-detect soil results down to the low-point of the ICAL (06/25/08) [i.e., 1 ug/L (absorbance of 0.002)]. For example, SDG No. KEY-URS046: soil sample AREA E/S-7 (0.005 absorbance equates to 2.36 ppb on instrument); reported result is 0.054 U mg/kg, which equates to $(1 \text{ ug/L} \times 0.05 \text{ mLs}) / (1.0 \text{ gm} \times 0.936 \% \text{ dry})$. The lab needs to

be consistent when reporting detected results vs. non-detect results. If the lab reports non-detects down to 1 ug/L (on the instrument level), than they should do the same for detections. Please clarify. This potentially affects several SDGs (i.e., KEY-URS038, -URS041, -URS046, -URS049,.....).

2. For SDG No. KEY-URS051, the alkalinity dilution factor for DUP-1 12232008 and HISB-114/GW/50-54 should be referenced as 1 on the Form 1s, not 5. Please confirm and resubmit the Form 1s.

3. For SDG No. KEY-URS058, delete the narrative comment pertaining to the nitrate spike exceedance of sample HISB-114/GW/70-74 because this sample is not included in this SDG.

Thanks,

Pete

Peter R. Fairbanks
Senior Project Chemist
URS Corporation
77 Goodell Street
Buffalo, New York 14203
Tel: 716.856.5636
Direct: 716.923.1121
Fax: 716.856.2545
email: peter_fairbanks@urscorp.com

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GROUNDWATERS

H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 9/24/08 & 9/25/08
SDG #: KEY-URS030**

For Samples:

HISB-104/30-34
TB 092408
HISB-104/45-49
HISB-104/55-59
TB 092508

The above sample was analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted with these samples. A lab fortified blank was analyzed and indicates good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 15, 2008

*
*
*

Joann M. Slavin
Senior Vice President

KEY-URS030 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 9/24/08 & 9/25/08
SDG #: KEY-URS030

For Samples:

HISB-104/30-34

HISB-104/45-49

HISB-104/55-59

The above water samples were analyzed for a specific list of semivolatile organic analytes by EPA method 8270C.

All QC data and calibrations met the requirements of the method and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/ matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 1, 2008

*
*
*

Joann M. Slavin
Senior Vice President

KEY-URS030 A4

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 9/24/08 & 9/25/08
SDG: KEY-URS030**

For Samples:

HISB-104/30-34
HISB-104/55-59

Two water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 7, 2008

*
*
*

Vincent Stancampiano
Vice President

KEY-URS030 A5

EXTERNAL CHAIN OF CUSTODY

1175065.00011

Jeffrey Davidson VRS
(JKH)

TURNAROUND TIME: 3 Day Rush

LABORATORY USE ONLY			
Samples were:			
1. Shipped ___ or Hand Delivered ___ Airbill# _____ 2. Ambient or chilled, Temp _____ 3. Received in good condition: Y or N _____ 4. Properly preserved: Y or N _____			
COC Tape was:			
1. Present on outer package: Y or N _____ 2. Unbroken on outer package: Y or N _____ 3. COC record present & complete upon sample receipt: Y or N _____			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	9/25/08	1400	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	9/25/08	2:55	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 11/11/08 – 11/14/08
SDG #: KEY-URS042

For Samples:

DGP-209/34'-38'	DGP-209/GW/70-74
DGP-209/GW/40-44	TB 111408
DGP-209/GW/50-54	

The above water samples were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.
- Three samples were reanalyzed at dilutions to keep the concentration of targeted analytes within the calibration range. Both sets of data are reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 4, 2008

*
*
*

Ursula Middel
Technical Manager

KEY-URS042 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 11/11/08 – 11/14/08
SDG #: KEY-URS042

For Samples:

DGP-209/34'-38' DGP-209/GW/50-54
DGP-209/GW/40-44 DGP-209/GW/70-74

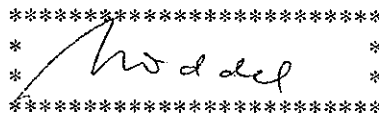
The above water samples were extracted by EPA Method 3510C. Samples were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

- No matrix spike/ matrix spike duplicate was requested. Three lab-fortified blanks (LFB) were analyzed and indicate good method efficiency. All recoveries were within QC limits with the exception of a low recovery for naphthalene for LFB-29037.
 - Two samples, DGP-209/GW/40-44 and DGP-209/GW/40-54, were extracted in batch 29037. The results for naphthalene in these samples are regarded estimated, potentially biased low.
- The concentration of targeted analytes in two samples, DGP-209/GW/40-44 and DGP-209/GW/40-54, were above the calibration range.
 - The samples were diluted and reanalyzed. Both sets of data are reported.
 - The areas for the internal standard (IS) naphthalene-d8 were below the acceptance limit in the undiluted runs of the samples due to quenching by the high naphthalene concentration. The IS areas in the dilutions were acceptable.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 26, 2008

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Ursula Middel
Technical Manager

KEY-URS042 A4

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS042
 Sample ID LFB-29037 Level: (low/med) LOW
 Column ID R-5SILMS Column Diam .25
 Inst. ID HP5972 Init. Calib. Date(s): 10/20/08 15:54
 Analysis Date: 11/18/08 12:08 10/20/08 18:59

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Naphthalene	50	0	15	30*	47-117
2-Methylnaphthalene	50	0	18	35	13-151
Acenaphthylene	50	0	28	56	36-132
Acenaphthene	50	0	30	59	51-133
Fluorene	50	0	36	72	55-129
Phenanthrene	50	0	43	86	57-135
Anthracene	50	0	43	85	61-135
Fluoranthene	50	0	44	88	61-135
Pyrene	50	0	41	82	58-136
Benzo(a)anthracene	50	0	48	95	56-136
Chrysene	50	0	44	88	38-170
Benzo(b)fluoranthene	50	0	38	75	43-147
Benzo(k)fluoranthene	50	0	48	95	53-159
Benzo(a)pyrene	50	0	44	88	47-141
Indeno(1,2,3-cd)pyrene	50	0	48	97	26-156
Dibenzo(a,h)anthracene	50	0	44	89	15-185
Benzo(g,h,i)perylene	50	0	49	98	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 17 outside limits

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS042

Lab File ID: A\C43669.D

DFTPP Injection Date: _____

11/18/08

Instrument ID: HP5972

DFTPP Injection Time: _____

10:20

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	40.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	64.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.1
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	17.3
365	Greater than 1.0% of mass 198	1.8
441	Present, but less than mass 443	9.6
442	40.0 - 110.0% of mass 198	57.4
443	17.0 - 23.0% of mass 442	11.1 (19.4)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC43670.D	11/18/08	10:34
02	MB-29037	MB-29037	AIC43672.D	11/18/08	11:37
03	LFB-29037	LFB-29037	AIC43673.D	11/18/08	12:08
04	209/GW/40-44	0813255-001B	AIC43684.D	11/18/08	17:46
05	209/GW/50-54	0813255-002B	AIC43685.D	11/18/08	18:17
06	209/GW/40-44DL	0813255-001BDL	AIC43688.D	11/18/08	19:49
07	209/GW/50-54DL	0813255-002BDL	AIC43689.D	11/18/08	20:19

FORM 6
(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS042

Instrument ID: HP5972 Calibration Dates: 10/20/08 10/20/08

Heated Purge: (Y/N) N Calibration Times: 15:54 18:59

GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:	SSTD005= C43270.D	SSTD010= C43271.D	SSTD025= C43268.D	SSTD040= C43272.D	SSTD060= C43273.D				
	SSTD080= C43274.D								
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R ²
4-Nitroaniline	0	0.3981591	0.3574282	0.4114103	0.4161	0.3987469	0.396	5.8	
4,6-Dinitro-2-methylphenol	0	0.1714445	0.1641339	0.1911219	0.2061879	0.1949899	0.186	9.3	
N-Nitrosodiphenylamine	* 0.9483965	0.9870635	0.8903982	0.9426771	0.9052586	0.8193889	0.914	6.5	*
1,2-Diphenylhydrazine	1.4289737	1.4155122	1.2365433	1.2548523	1.3015570	1.1962664	1.306	7.4	
4-Bromophenyl phenylether	0.198	0.204	0.181	0.193	0.195	0.184	0.193	4.4	
Hexachlorobenzene	0.2354517	0.2478043	0.2186387	0.2324839	0.2309641	0.2075886	0.229	6.1	
Pentachlorophenol	*	0.1542792	0.1445014	0.1602585	0.1541584	0.1426833	0.151	4.9	*
Phenanthrene	1.4590342	1.5038993	1.2728808	1.3080905	1.2578267	1.1669876	1.328	9.7	
Anthracene	1.4648612	1.5163688	1.3295746	1.3515652	1.3059034	1.2111034	1.363	8.1	
Carbazole	1.3471191	1.4470903	1.2716459	1.3331723	1.2972277	1.1905774	1.314	6.5	
Di-n-butyl phthalate	2.1038886	2.1340195	1.8094976	1.7058186	1.6112240	1.422299	1.798	15.6	
Fluoranthene	* 1.0973677	1.1460386	0.9805476	0.9944578	0.9699148	0.913671	1.017	8.6	*
Pyrene	2.0185909	2.1075847	1.8076223	1.876554	1.8366770	1.8122714	1.910	6.5	
Butyl benzyl phthalate	1.6158212	1.6638965	1.2880518	1.1373888	0.9952603	0.8731721	1.262	25.7	
3,3'-Dichlorobenzidine	0.4425612	0.4922517	0.5262148	0.51024	0.4759275	0.3936144	0.473	10.3	
Benzo(a)anthracene	1.5269778	1.5154016	1.2895242	1.3137408	1.2849698	1.2540244	1.364	9.0	
Chrysene	1.3629010	1.4558693	1.2206474	1.3034549	1.2635001	1.2385026	1.307	6.8	
bis(2-Ethylhexyl)phthalate	2.3125653	2.1854178	1.6132451	1.3600751	1.1150992	0.9671965	1.592	34.9	
Di-n-octyl phthalate	* 4.2139690	4.220275	3.2011696	3.1769286	2.8813849	2.612714	3.384	20.1	*
Benzo(b)fluoranthene	1.5913786	1.6684592	1.4477568	1.8430589	1.8195	1.8721381	1.707	9.8	
Benzo(k)fluoranthene	1.5785648	1.6502937	1.1900614	1.0445963	0.8467	0.9288847	1.207	27.9	*
Benzo(a)pyrene	* 1.3301166	1.457131	1.1974026	1.3991267	1.357411	1.2932836	1.339	6.7	*
Indeno(1,2,3-cd)pyrene	1.3371786	1.4915094	1.2330884	1.5334216	1.4416329	1.3770949	1.402	7.8	

FORM VI

SW8270C

KEY-URS042 B73

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER National Grid

Hempstead MGP PDI

#11175065.00011

SAMPLERS: (signature)/Client

Jeffrey A. Harshman URS

DELIVERABLES:

TURNAROUND TIME: Standard

22419

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS		H2M SDG NO: KEY-YES043042	
Project Contact: Kevin Connare URS		Phone Number: Jeff Harshman URS	
PIS/Quote #			

NOTES:

Sample Container Description
 BTEX x 8260B
 PAH x 8270C

ANALYSIS REQUESTED

ORGANIC	INORG.
VOA	Metals
BVS	
PCB	

LAB I.D. NO.

REMARKS:

3	X	X	0813254-003003 KEY-YES043
3	X	X	-002
3	X	X	-001
3	X	X	-004
3	X	X	-005
4	X	X	0813255-002-004 KEY-YES042
4	X	X	-001-003
			00-11-13.04

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N Explain:

- Samples were:
1. Shipped or Hand Delivered: ☒ Airbill#
 2. Ambient or Chilled, Temp
 3. Received in good condition: ☒ Y or N
 4. Properly preserved: ☒ Y or N

COC Tags were:

1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: ☒ Y or N

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey A. Harshman</i>	11/13/08	15:08	<i>S.Wad</i>	11/13/08	15:08
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>S.Wad</i>	11-13-08	16:05	<i>Jeffrey A. Harshman</i>	11/13/08	16:05
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

WENTHURST #2 ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist KEY-URS 042

Client Name KEY-URS

Date and Time Received: 11/13/2008 4:05:00 PM

Work Order Number 0813255

Received by EM

Checklist completed by [Signature]

Signature

Date

11/13/08

Reviewed by [Signature]

Initials

Date

11/16/08

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES

Date contacted: 11/16/08

Person contacted JEFF HARSHMAN

VOICE MAIL

Contacted by: JEFF HARSHMAN

Regarding _____

Comments:

-601 written on chain as DGP-209/GW/34-38 but on label as 40-44.

-601 collection time written on chain as 1230 on bottle as 1445.

Corrective Action _____

KEY-URS042 A17

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER National Grid
Hempstead M&P PDI
#11175065.00011

SAMPLERS: (signature)/Client

Jeffrey K. Harshman URS

DELIVERABLES:

TURNAROUND TIME: Standard

DATE	TIME	MATRIX	FIELD I.D.
11/11/2011	11:11	1111	1111

DATE				
11/14/08			H ₂ O	TRIP BLANK
11/14/08	1000	6W	D6P-209/6W/70-74'	

Relinquished by: (Signature)

Eugene K. Darchava

2
(continued)

Relinquished by: (Signature)

Relinquished by: (Signature)

Date	Time
------	------

14/08/2021	Time
Date	

1-114-10-18

Date	Time
08/16/15	

Date	Time
------	------

KMYTER8042-ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

[illegible]

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS SAMPLES RECEIVED: 11/19/08 – 11/21/08 SDG #: KEY-URS044

For Samples:

HISB-100/GW/30-34	HISB-100/GW/60-64	20081119-TB-2
HISB-100/GW/40-44	HISB-101/GW/40-44	HISB-100/GW/70-74
HISB-101/GW/30-34 MS/MSD	HISB-101/GW/50-54	HISB-100/GW/80-84
20081119-FD-1	HISB-101/GW/60-64	20081121-FD-1
20081119-TB-1	HISB-101/GW/70-74	20081121-TB-1
HISB-100/GW/50-54	HISB-101/GW/80-84	

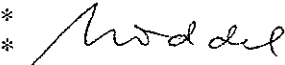
The above water samples were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample HISB-101/GW/30-34 was analyzed as the matrix spike/matrix spike duplicate.
- All percent recoveries for the four lab fortified blanks and recoveries and RPDs for the MS and MSD were within QC limits with the exception of a slightly low recovery of 70% for benzene in the MS (limit 76%).
- Seven samples were reanalyzed at dilutions to keep the concentration of targeted analytes within the calibration range. Both sets of data are reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 9, 2008

*  *
* *****
Ursula Middel
Technical Manager

KEY-URS044 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS SAMPLES RECEIVED: 11/19/08 – 11/21/08 SDG #: KEY-URS044

For Samples:

HISB-100/GW/30-34	HISB-100/GW/60-64	HISB-101/GW/80-84
HISB-100/GW/40-44	HISB-101/GW/40-44	HISB-100/GW/70-74
HISB-101/GW/30-34 MS/MSD	HISB-101/GW/50-54	HISB-100/GW/80-84
20081119-FD-1	HISB-101/GW/60-64	20081121-FD-1
HISB-100/GW/50-54	HISB-101/GW/70-74	

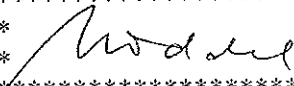
The above water samples were analyzed for a select list of semivolatile organic analytes (PNAs) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample HISB-101/GW/30-34 was analyzed as the matrix spike/matrix spike duplicate (MS/MSD).
- All percent recoveries for the two lab fortified blanks and recoveries and RPDs for the MS and MSD were within QC limits with the exception of a low naphthalene recovery of 33% in LFB-2927 (limit 47%). Based on that low recovery, naphthalene results for samples extracted in that batch may be biased low. This affects all samples received on 11/19/08 and 11/20/08.
- Seven samples were reanalyzed at dilutions to keep the concentration of targeted analytes within the calibration range. Both sets of data are reported.
- No surrogate recoveries are reportable for the three dilutions, because the surrogate compounds are "diluted out", i. e. below reportable level.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 9, 2008

*  *

Ursula Middel
Technical Manager

KEY-URS044 A4

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS044
 Sample ID LFB-29217 Level: (low/med) LOW
 Column ID R-5SILMS Column Diam .25
 Inst. ID HP5972 Init. Calib. Date(s): 11/21/08 10:15
 Analysis Date: 11/26/08 17:51 11/21/08 13:20

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Naphthalene	50	0	16	33*	47-117
2-Methylnaphthalene	50	0	18	35	13-151
Acenaphthylene	50	0	31	62	36-132
Acenaphthene	50	0	30	61	51-133
Fluorene	50	0	37	74	55-129
Phenanthrene	50	0	41	82	57-135
Anthracene	50	0	44	88	61-135
Fluoranthene	50	0	43	86	61-135
Pyrene	50	0	42	84	58-136
Benzo(a)anthracene	50	0	42	85	56-136
Chrysene	50	0	44	88	38-170
Benzo(b)fluoranthene	50	0	37	73	43-147
Benzo(k)fluoranthene	50	0	38	75	53-159
Benzo(a)pyrene	50	0	39	77	47-141
Indeno(1,2,3-cd)pyrene	50	0	42	83	26-156
Dibenzo(a,h)anthracene	50	0	40	79	15-185
Benzo(g,h,i)perylene	50	0	41	82	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 17 outside limits

COMMENTS: _____

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 11/19/08 & 11/20/08
SDG: KEY-URS044**

For Samples:

HISB-100/GW/30-34
HISB-101/GW/30-34
20081119-FD-1
HISB-100/GW/50-54
HISB-101/GW/50-54

Five water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 9, 2008

*
*
*

Vincent Stancampiano
Vice President

KEY-URS044 A5

PROJECT NAME/NUMBER

Nationel Grid #11175065.00011
Hempstead, NY
Megan David

SAMPLERS: (signature)/Client

Project Contact:

Kevin Connare
Jeff Harshman

Phone Number:

PIS/Quote #

NOTES:

Sample Container Description
PAH 8270C
BTEX 82608
Nitate-Nitrogen
Alkalinity totals
Nitrate-Nitrogen
Phosphate (ortho)

DELIVERABLES:

TURNAROUND TIME: standard

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ANALYSIS REQUESTED						INORG.	Metal	CN	REMARKS:
					ORGANIC	VOA	BNA	Pb	Pb	Pb				
11/19	09:20	GW	HTSB-100/6W/30-34	6	2	2	2	X	X	X	A			0813480-001 A-D
11/19	09:20	GW	HTSB-100/6W/40-44	4	2	2	2	X	X	X	X			-002 A-D
11/19	09:50	GW	HTSB-101/6W/30-34	6	X	X	X	X	X	X	X			-003 A-D
11/19	09:50	GW	HTSB-101/6W/30-34	4	X	X	X	X	X	X	X			-004 A-D
11/19	09:50	GW	HTSB-101/6W/30-34	4	X	X	X	X	X	X	X			-005 A-D
11/19	09:50	GW	2008119-FD-1	6	X	X	X	X	X	X	X			-006 A-D
11/19	09:50	GW	2008119-TB-1	2	X	X	X	X	X	X	X			-007 A-D

LABORATORY USE ONLY			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	11/19/08	11:07	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	11/19/08	16:30	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

1. Shipped or Hand Delivered: ☒ Airbill#

2. Ambient or chilled Temp

3. Received in good condition: Y or N

4. Properly preserved: Y or N

COC Tape was:

1. Present on outer package: Y or ☒ N

2. Unbroken on outer package: Y or ☒ N

3. COC record present & complete upon sample receipt: Y or ☒ N

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS044*

Client Name KEY-URS

Date and Time Received: 11/19/2008 4:30:00 PM

Work Order Number 0813480

Received by EM

Checklist completed by

Eric Murphy
Signature Date *11.19.08*

Reviewed by

ISA *11/20/08*
Initials Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted NO Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: -COULD, the one vial had headspace ~2mm

Corrective Action USE AS SPARE ONLY

KEY-URS044 A8

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER National Grid

Hempstead MGP PDI

#11175065.00011

29790

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS

H2M SDG NO: KEY-URS044/45

Project Contact:

Kevin Connare
Jeff Harshman

Phone Number:

PIS/Quote #

NOTES:

* Run total CN:
should results
exceed 40ppm,
run sample
for free CN

Sample Description

RTX #82608
PAH #8270C

Nitrate - Nitrogen

Nitrite - Nitrogen

Alkalinity

ortho Phosphate

Total CN

SAMPLERS: (signature)/Client

Jeffrey H. Harshman URS

DELIVERABLES:

TURNAROUND TIME: Standard

Total No. of Containers

ANALYSIS REQUESTED

ORGANIC

VOC

BNA

PCB

INORG.

Metal

CN

LAB I.D. NO.

REMARKS:

0813520-003

-004

-005

-008

-001

-002

-006

-007

0813522-001A

KEY-URS044

LABORATORY USE ONLY

Discrepancies Between

Sample Labels and

COC Record? Y or N

Explain:

Samples were:

1. Shipped or Hand Delivered ☒ Airbill#

2. Ambient or chilled, Temp

3. Received in good condition ☒ Y or N

4. Properly preserved: ☒ Y or N

COC Table was:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

3. COC record present & complete upon sample receipt: ☒ Y or N

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

KEY-URS044 ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

#11175065.00011

URS

8/mg/001-9514

100

1

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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1

on outer package

7

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist

KEY-URS044

Client Name KEY-URS

Date and Time Received:

11/21/2008 4:43:00 PM

Work Order Number 0813569

Received by EM

Checklist completed by

Signature

Date

11/21/08

Reviewed by

Initials

Date

28A

11/25/08

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Applicable ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Applicable ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Applicable ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☐

No ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted

YES

Date contacted:

11/24/08

Person contacted

JEFF HARSHMAN

Contacted by:

JEN ARACCI

Regarding _____

Comments:

-001A: both vials had headspace ~1mm. -002A: both vials had headspace ~10mm

Corrective Action _____

KEY-URS044 A24

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/1/08, 12/2/08 & 12/4/08
SDG #: KEY-URS047

For Samples:

HISB-102/GW/30-34 HISB-102/GW/60-64 HISB-105/GW/30-34
HISB-102/GW/40-44 HISB-102/GW/70-74 HISB-105/GW/40-44
HISB-103/GW/30-34 HISB-102/GW/80-84 HISB-105/GW/50-54
HISB-103/GW/40-44 HISB-103/GW/60-64 HISB-105/GW/60-64
HISB-103/GW/50-54 HISB-103/GW/70-74 HISB-105/GW/70-74
20081201-TB-1 HISB-103/GW/80-84 20081204-TB-1
HISB-102/GW/50-54 20081201-TB-2

2/17/09
2
groundwater
The above soil samples were analyzed for a select list of volatile organic analytes by EPA method 8260B. ✓

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- Sample HISB-102/GW/30-34 was analyzed as the matrix spike/ matrix spike duplicate. Toluene had low percent recoveries in both the matrix spike and the matrix spike duplicate.
- Samples HISB-102/GW/30-34 and HISB-102/GW/40-44 were reanalyzed at a dilution due to concentration levels of targeted analytes above the concentration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 16, 2008

*
*

Joann M. Slavin
Senior Vice President

KEY-URS047 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES SAMPLES RECEIVED: 12/1/08, 12/2/08 & 12/4/08 SDG #: KEY-URS047

For Samples:

HISB-102/GW/30-34	HISB-102/GW/60-64	HISB-105/GW/30-34
HISB-102/GW/40-44	HISB-102/GW/70-74	HISB-105/GW/40-44
HISB-103/GW/30-34	HISB-102/GW/80-84	HISB-105/GW/50-54
HISB-103/GW/40-44	HISB-103/GW/60-64	HISB-105/GW/60-64
HISB-103/GW/50-54	HISB-103/GW/70-74	HISB-105/GW/70-74
HISB-102/GW/50-54	HISB-103/GW/80-84	

The above samples were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

Sample HISB-102/GW/30-34 was analyzed as the matrix spike/matrix spike duplicate.

All percent recoveries and RPD's were met. Surrogate standard recoveries were outside of QC limits in sample HISB-102/GW/30-34 and its matrix spike and matrix spike duplicate, HISB-102/GW/50-54, HISB-102/GW/80-84, HISB-103/GW/80-84 and HISB-105/GW/60-64. Surrogate standards were diluted out in samples HISB-102/GW/30-34, HISB-102/GW/50-54 and HISB-105/GW/60-64. Surrogate recoveries were acceptable in the re-extraction of HISB-103/GW/80-84. Internal standard area counts were outside area count limits in samples HISB-102/GW/30-34 and HISB-102/GW/50-54.

Seven samples were reanalyzed at dilutions in order to keep instrument readings within the calibration range.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 23, 2008

*
*

Joann M. Slavin
Senior Vice President

KEY-URS047 A4

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

	EPA SAMPLE NO.	S1 NBZ #	S2 FBP #	S3 TPH #	S4 DCB #					TOT OUT
01	MB-29277	91	59	74	49					0
02	LFB-29277	80	66	88	53					0
03	102/GW/30-34	146 *	68	72	57					1
04	102/GW/30-34MS	134 *	66	76	57					1
05	102/GW/30-34MSD	131 *	66	73	54					1
06	102/GW/40-44	93	70	74	60					0
07	103/GW/30-34	72	52	75	41					0
08	103/GW/40-44	77	63	74	52					0
09	103/GW/50-54	79	64	73	51					0
10	102/GW/50-54	127 *	62	73	49					1
11	102/GW/60-64	74	59	73	46					0
12	102/GW/70-74	70	65	69	54					0
13	103/GW/60-64	102	67	74	57					0
14	103/GW/70-74	99	65	74	54					0
15	103/GW/80-84	3 *	64	62	51					1
16	102/GW/30-34DL	0 D	0 D	0 D	0 D					0
17	102/GW/40-44DL	85	79	92	71					0
18	103/GW/50-54DL	87	73	91	56					0
19	102/GW/50-54DL	0 D	0 D	0 D	0 D					0
20	MB-29308	74	55	78	42					0
21	LFB-29308	80	63	93	46					0
22	102/GW/80-84	26 *	55	71	45					1
23	102/GW/80-84DL	25 D	54	74	43					0
24	MB-29325	87	79	69	84					0
25	LFB-29325	83	78	77	78					0
26	105/GW/30-34	74	69	68	71					0
27	105/GW/40-44	85	77	69	78					0
28	105/GW/50-54	77	71	64	74					0
29	105/GW/60-64	141 *	72	64	75					1

QC LIMITS

S 1 NBZ = Nitrobenzene-d5 (35-114)
 S 2 FBP = 2-Fluorobiphenyl (43-116)
 S 3 TPH = 4-Terphenyl-d14 (33-141)
 S 4 DCB = 1,2-Dichlorobenzene-d4 (16-110)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

	EPA SAMPLE NO.	S1 NBZ#	S2 FBP#	S3 TPH #	S4 DCB#					TOT OUT
31	105/GW/70-74	72	69	65	70					0
32	105/GW/40-44DL	94	94	90	97					0
33	105/GW/60-64DL	0 D	0 D	0 D	0 D					0
34	MB-29454	84	78	70	80					0
35	LFB-29454	90	84	88	83					0
36	103/GW/80-84RE	84	71	82	60					0

QC LIMITS

S 1 NBZ = Nitrobenzene-d5 (35-114)
 S 2 FBP = 2-Fluorobiphenyl (43-116)
 S 3 TPH = 4-Terphenyl-d14 (33-141)
 S 4 DCB = 1,2-Dichlorobenzene-d4 (16-110)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS047
Lab File ID: 8\N28361.D DFTPP Injection Date: 12/03/08
Instrument ID: HP5973N DFTPP Injection Time: 19:47

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.6
68	Less than 2.0% of mass 69	0.2 (0.6)1
69	Mass 69 relative abundance	34.7
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	43.7
197	Less than 1.0% of mass 198	0.1
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.1
365	Greater than 1.0% of mass 198	2.8
441	Present, but less than mass 443	9.0
442	40.0 - 110.0% of mass 198	57.8
443	17.0 - 23.0% of mass 442	10.7 (18.6)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	8\N28362.D	12/03/08	20:01
02	MB-29277	MB-29277	8\N28363.D	12/03/08	20:31
03	LFB-29277	LFB-29277	8\N28364.D	12/03/08	21:01
04	102/GW/30-34	0813812-001B	8\N28365.D	12/03/08	21:30
05	102/GW/30-34MS	0813812-001BMS	8\N28366.D	12/03/08	22:00
06	102/GW/30-34MSD	0813812-001BMSD	8\N28367.D	12/03/08	22:30
07	102/GW/40-44	0813812-002B	8\N28368.D	12/03/08	23:00
08	103/GW/30-34	0813812-003B	8\N28369.D	12/03/08	23:30
09	103/GW/40-44	0813812-004B	8\N28370.D	12/04/08	0:00
10	103/GW/50-54	0813812-005B	8\N28371.D	12/04/08	0:30
11	102/GW/50-54	0813856-001B	8\N28372.D	12/04/08	1:00
12	102/GW/60-64	0813856-002B	8\N28373.D	12/04/08	1:29
13	102/GW/70-74	0813856-003B	8\N28374.D	12/04/08	1:59
14	103/GW/60-64	0813856-005B	8\N28376.D	12/04/08	2:59
15	103/GW/70-74	0813856-006B	8\N28377.D	12/04/08	3:29
16	103/GW/80-84	0813856-007B	8\N28378.D	12/04/08	3:59

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Lab File ID: 8\N28417.D

DFTPP Injection Date: _____

12/08/08Instrument ID: HP5973N

DFTPP Injection Time: _____

16:58

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.5
68	Less than 2.0% of mass 69	0.2 (0.7)1
69	Mass 69 relative abundance	37.0
70	Less than 2.0% of mass 69	0.2 (0.7)1
127	40.0 - 60.0% of mass 198	45.9
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 1.0% of mass 198	2.9
441	Present, but less than mass 443	8.5
442	40.0 - 110.0% of mass 198	56.2
443	17.0 - 23.0% of mass 442	10.2 (18.1)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	8\N28418.D	12/08/08	17:12
02	MB-29325	MB-29325	8\N28419.D	12/08/08	17:42
03	LFB-29325	LFB-29325	8\N28420.D	12/08/08	18:12
04	105/GW/30-34	0813976-001B	8\N28421.D	12/08/08	18:42
05	105/GW/40-44	0813976-002B	8\N28422.D	12/08/08	19:11
06	105/GW/50-54	0813976-003B	8\N28423.D	12/08/08	19:41
07	105/GW/60-64	0813976-004B	8\N28424.D	12/08/08	20:11
08	105/GW/70-74	0813976-005B	8\N28425.D	12/08/08	20:41

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS. INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047EPA Sample No.(SSTD050##): SSTD025Date Analyzed: 12/03/08Lab File ID (Standard): 8\N28362.DTime Analyzed: 20:01Instrument ID: HP5973NGC Column: R-5SILMS ID: .25 (mm)

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	607652	4.47	2283226	6.02	1315465	9.07
UPPER LIMIT	1215304	4.97	4566452	6.52	2630930	9.57
LOWER LIMIT	303826	3.97	1141613	5.52	657733	8.57
EPA SAMPLE NO.						
01 MB-29277	476931	4.47	1252942	6.02	1001136	9.06
02 LFB-29277	538201	4.47	1961621	6.02	1130839	9.06
03 102/GW/30-34	569529	4.48	1086905*	6.05	1147136	9.07
04 102/GW/30-34MS	505247	4.48	1096398*	6.05	1073549	9.07
05 102/GW/30-34MSD	519338	4.48	1105644*	6.06	1104779	9.07
06 102/GW/40-44	495314	4.47	1497456	6.04	1020777	9.07
07 103/GW/30-34	471210	4.47	1712417	6.02	991120	9.06
08 103/GW/40-44	470811	4.47	1621265	6.02	963284	9.06
09 103/GW/50-54	494373	4.47	1742114	6.02	1015672	9.06
10 102/GW/50-54	449360	4.47	957864*	6.06	921031	9.06
11 102/GW/60-64	544519	4.47	1967938	6.02	1130810	9.06
12 102/GW/70-74	539855	4.47	1963934	6.02	1119374	9.06
13 103/GW/60-64	472856	4.47	1194245	6.02	984737	9.06
14 103/GW/70-74	468995	4.47	1184746	6.02	981590	9.06
15 103/GW/80-84	554254	4.47	2013109	6.01	1137659	9.06

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS047 S136

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047

EPA Sample No.(SSTD050##):

SSTD025

Date Analyzed:

12/04/08

Lab File ID (Standard):

8W28382.D

Time Analyzed:

14:35

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: .25

(mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	479100	4.36	1792220	5.88	1050174	8.90
UPPER LIMIT	958200	4.86	3584440	6.38	2100348	9.40
LOWER LIMIT	239550	3.86	896110	5.38	525087	8.40
EPA SAMPLE NO.						
01 102/GW/30-34DL	461512	4.36	1674866	5.87	956424	8.89
02 102/GW/40-44DL	439613	4.36	1578935	5.87	898810	8.89
03 103/GW/50-54DL	396600	4.36	1443506	5.87	822659	8.89
04 102/GW/50-54DL	428532	4.36	1548213	5.87	880919	8.89

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS047 S138

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Lab File ID: 8\N28417.D

DFTPP Injection Date: _____

12/08/08Instrument ID: HP5973N

DFTPP Injection Time: _____

16:58

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.5
68	Less than 2.0% of mass 69	0.2 (0.7)1
69	Mass 69 relative abundance	37.0
70	Less than 2.0% of mass 69	0.2 (0.7)1
127	40.0 - 60.0% of mass 198	45.9
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	23.2
365	Greater than 1.0% of mass 198	2.9
441	Present, but less than mass 443	8.5
442	40.0 - 110.0% of mass 198	56.2
443	17.0 - 23.0% of mass 442	10.2 (18.1)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	8\N28418.D	12/08/08	17:12
02	MB-29325	MB-29325	8\N28419.D	12/08/08	17:42
03	LFB-29325	LFB-29325	8\N28420.D	12/08/08	18:12
04	105/GW/30-34	0813976-001B	8\N28421.D	12/08/08	18:42
05	105/GW/40-44	0813976-002B	8\N28422.D	12/08/08	19:11
06	105/GW/50-54	0813976-003B	8\N28423.D	12/08/08	19:41
07	105/GW/60-64	0813976-004B	8\N28424.D	12/08/08	20:11
08	105/GW/70-74	0813976-005B	8\N28425.D	12/08/08	20:41

Form 6

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS047Instrument ID: HP5973N Calibration Dates: 11/11/2008 11/11/2008Heated Purge: (Y/N) N Calibration Times: 17:55 20:36GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SST005= N28126.D SST010= N28125.D SST025= N28121.D SST040= N28124.D SST060= N28123.D									
SST080= N28122.D									
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R ²
Phenanthrene	1.4160434	1.4060933	1.2193473	1.2287656	1.1862822	1.1184928	1.263	9.6	
Anthracene	1.3927451	1.3951386	1.1929833	1.1819035	1.1126358	1.032327	1.218	12.1	
Carbazole	1.2294567	1.2704913	1.1162158	1.1344248	1.1070168	1.0369597	1.149	7.5	
Di-n-butyl phthalate	1.4952433	1.5307019	1.3195377	1.3314042	1.2850758	1.2142841	1.363	9.1	
Fluoranthene	1.4445983	1.4316578	1.2224526	1.2087897	1.1669863	1.0930126	1.261	11.4	*
Pyrene	1.751112	1.7979679	1.5717126	1.6405910	1.6770525	1.7086473	1.691	4.8	
Butyl benzyl phthalate	0.7459362	0.7741303	0.6868249	0.7162336	0.7156187	0.707715	0.724	4.3	
3,3'-Dichlorobenzidine	0.5572373	0.5559372	0.5051741	0.5019063	0.5122202	0.5051790	0.523	5.0	
Benzo(a)anthracene	1.6354929	1.6065223	1.4117402	1.5035600	1.5313099	1.5418714	1.538	5.2	
Chrysene	1.4931832	1.4607080	1.2370555	1.2927006	1.3571251	1.3933579	1.372	7.1	
Bis(2-ethylhexyl)phthalate	0.9942907	1.0097221	0.8548521	0.8906077	0.8806854	0.8842674	0.919	7.1	
Di-n-octyl phthalate	1.8942648	1.9397882	1.4879838	1.6103082	1.3953846	1.3104456	1.606	16.2	*
Benzo(b)fluoranthene	1.8734995	1.7429569	1.4156256	1.6773929	1.6817925	1.608154	1.667	9.1	
Benzo(k)fluoranthene	1.5784661	1.6644987	1.1327357	1.0817671	1.0722437	0.9656905	1.249	23.6	
Benzo(a)pyrene	1.5439806	1.5979491	1.2432006	1.3797548	1.2750544	1.219252	1.377	11.7	*
Indeno(1,2,3-cd)pyrene	1.6670336	1.7121809	1.4246146	1.5390786	1.4803228	1.448949	1.545	7.7	
Dibenzo(a,h)anthracene	1.3912048	1.4240186	1.1688827	1.2527097	1.1946974	1.1758256	1.268	8.9	
Benzo(g,h,i)perylene	1.4369778	1.5017228	1.2861414	1.3737828	1.3206650	1.3060001	1.371	6.1	
2-Fluorophenol	1.3138295	1.2888243	1.3035994	1.2820009	1.2851574	1.2619381	1.289	1.4	
Nitrobenzene-d5	0.3918257	0.3725686	0.355142	0.3303855	0.334721	0.3276753	0.352	7.4	
Phenol-d5	1.580398	1.527986	1.5346454	1.4566298	1.4272527	1.3756902	1.484	5.2	
2,4,6-Tribromophenol	0.2375074	0.2284515	0.2232574	0.2165582	0.2177592	0.2072049	0.222	4.7	
2-Fluorobiphenyl	1.5966075	1.4969206	1.3811335	1.3254421	1.3169720	1.2607025	1.396	9.1	

FORM VI

SW8270C

KEY-URS047 B175

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS047Instrument ID: HP5973NCalibration Date: 12/8/200Time: 17:12Lab File ID: 8\N28418.DInit. Calib. Date(s): 11/11/08 11/11/08EPA Sample No.(SSTD050##): SSTD025Init. Calib. Times: 17:5520:36GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	1.040	0.951		-8.5	
2-Methylnaphthalene	0.705	0.628		-10.9	
Acenaphthylene	1.955	1.693		-13.4	
Acenaphthene	1.194	1.055		-11.7	20.0
Fluorene	1.446	1.236		-14.5	
Phenanthrene	1.263	1.199		-5.0	
Anthracene	1.218	1.190		-2.3	
Fluoranthene	1.261	1.260		-0.1	20.0
Pyrene	1.691	1.612		-4.7	
Benzo(a)anthracene	1.538	1.380		-10.3	
Chrysene	1.372	1.332		-2.9	
Benzo(b)fluoranthene	1.667	1.317		-21.0	
Benzo(k)fluoranthene	1.249	1.216		-2.7	
Benzo(a)pyrene	1.377	1.197		-13.0	20.0
Indeno(1,2,3-cd)pyrene	1.545	1.266		-18.1	
Dibenzo(a,h)anthracene	1.268	1.028		-18.9	
Benzo(g,h,i)perylene	1.371	1.129		-17.6	

All other compounds must meet a minimum RRF of 0.010.

H2M LABS, INC.

SEMI-VOLATILES SAMPLE PREPARATION

EXTRACTION DATE: 12/17/2008

MATRIX: WATER

SDG#: KEY-05047

SOIL

SLUDGE

DELIV. CODE: 85-70

OTHER (SPECIFY) _____

EXTR. METHOD: SEPF ✓ CONT ✓ TUMB _____ SONG _____ SOXH _____ PFEX _____ BLEND _____ DIL _____ SOLID PHASE _____

TEST CODE: 8270-W-766

ASPB8270-MGR-W

SAMPLES					pH Calibration:				
Lab Id #	Customer#	Int'l Vol/Wt	pH	GPC COL#	READING OF 4.0 BUFFER (3.9-4.1)	READING OF 10.0 BUFFER (9.9-10.1)	Vol/Wt	GPC COL	Spike Sol#
1 0813856-0078	KEY-045	1L	2/11						
2 0814294-0082	KEY-661								
3 0814367-0018									
4 0814367-0028									
5 0814367-0038									
6 0814367-0048									
7 0814367-0058		500mL							
8 0814367-0068									
9 0814367-0078									
10 0814367-0088									
11 0814367-0098									
12 0814367-0108									
13 0814367-0118									
14 0814367-0128									
15 0814367-0138									
16 0814367-0148									
17 0814367-0158									
18 0814367-0168									
19 0814367-0178									
20 0814367-0188									

COMMENTS/					REAGENTS				
Sample Description	Vol/Wt	GPC COL	Spike Sol#	Vol/Wt	Lot #	Prep Date	Lot #	Prep Date	Prep Date
0813856-0078-Re-entrant									
0814367-0058: half spike									
final volume 0.5mL									
29453									
a) Run MSB for AC, AS 8270/PP8080 with MS sol.									
b) Run LFB for all codes with QC sol except AC									
c) Spike samples for AC and any 8270/PP8080 w/ MS sol., all others with QC sol									
CH2Cl2									
HEXANE									
ACETONE									
NaCl									
Na2SO4									
FLORISIL									

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 12/01/08, 12/02/08 & 12/04/08
SDG: KEY-URS047**

For Samples:

HISB-102/GW/30-34
HISB-103/GW/30-34
HISB-103/GW/50-54
HISB-102/GW/50-54
HISB-105/GW/50-54
HISB-105/GW/70-74

Six water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 22, 2008

*
*

Vincent Stancampiano
Vice President

KEY-URS047 A5

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER National Grid
Hempstead MGP PDI

11175065-00011

SAMPLERS: (signature)/Client URS
Jeffrey K. Dardeman
Megan Nasrati

DELIVERABLES:

TURNAROUND TIME: standard

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED										INORG.		REMARKS:	
				VOA	BNA	PCB										LAB I.D. NO.	
12-1-08		H2O	20081201-TB-1	X												0813X12-006A	
12-1-08	1100	GW	H15B-102/GW/30-34	X	X	X						X				- 001A-D	MS
12-1-08	1100	GW	H15B-102/GW/30-34	X	X	X										-	MSD
12-1-08	1100	GW	H15B-102/GW/30-34	X	X	X										-	
12-1-08	1200	GW	H15B-102/GW/40-44	X	X	X										- 002AB	
12-1-08	0935	GW	H15B-103/GW/30-34	X	X	X						X				- 003A-D	
12-1-08	1040	GW	H15B-103/GW/40-44	X	X	X										- 004AB	
12-1-08	1140	GW	H15B-103/GW/50-54	X	X	X						X				- 005A-D	

Relinquished by: (Signature)				Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey K. Dardeman</i>				12/1/08	1300	<i>Stuntz</i>	12/1/08	216
<i>Megan Nasrati</i>				12/1/08	430	<i>Stuntz</i>	12/1/08	1430
<i>Stuntz</i>								
Relinquished by: (Signature)				Date	Time	Received by: (Signature)	Date	Time

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N Explain:

Samples were:
 1. Shipped or Hand Delivered ☒ Airblt#
 2. Ambient or chilled, Temp.
 3. Received in good condition: Y or N
 4. Properly preserved: Y or N

COC Type was:
 1. Present on outer package: Y or N
 2. Unbroken on outer package: Y or N
 3. COC record present & complete upon sample receipt: Y or N

YELLOW COPY - CLIENT PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist KEY-URS 047

Client Name KEY-URS

Date and Time Received:

12/1/2008

Work Order Number 0813812

Received by EM

Checklist completed by

Signature

Date

12/1/08

Reviewed by

Initials

Date

BA

12/3/08

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Applicable ☐
 Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Applicable ☒
 Custody seals intact on sample bottles? Yes ☐ No ☐ Not Applicable ☒
 Chain of custody present? Yes ☒ No ☐
 Chain of custody signed when relinquished and received? Yes ☒ No ☐
 Chain of custody agrees with sample labels? Yes ☒ No ☐
 Samples in proper container/bottle? Yes ☒ No ☐
 Sample containers intact? Yes ☒ No ☐
 Sufficient sample volume for indicated test? Yes ☒ No ☐
 All samples received within holding time? Yes ☒ No ☐
 Container/Temp Blank temperature in compliance? Yes ☒ No ☐
 Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☐ No ☒
 Water - pH acceptable upon receipt? Yes ☒ No ☐

Adjusted?

Checked by

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted

YES

Date contacted:

12/2/08

Person contacted

JEFF HARSHMAN

Contacted by:

JEN ARACHY

Regarding

Comments:

-001A: all 6 vials have headspace, 5 vials have 3mm bubbles and 1 has a 5mm bubble.

-002A: both vials have 3mm headspace, -004A: both vials have 5mm headspace.

-006A (Trip blank) one vial has 3mm headspace

Corrective Action

KEY-URS047 A8

CLIENT: URS				H2M SDG NO: Key URS047																							
PROJECT NAME/NUMBER Hempstead MGP PDI # 11175065.00011				NOTES: 				Project Contact: Kevin Connare Jeff Harshman																			
								Phone Number: 																			
DELIVERABLES: TURNAROUND TIME: Standard				ANALYSIS REQUESTED ORGANIC: <input type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 															
SAMPLE CONTAINER DESCRIPTION BTEX x 82608 PAH x 8270C Nitrate Nitrite Aik Ortho Phosphate				ANALYSIS REQUESTED ORGANIC: <input type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 															
DATE 12-1-08 1345				MATRIX GW				FIELD I.D. H15B-102/GW/50-54				CONTAINER NO. 6				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-1-08 1340				MATRIX GW				FIELD I.D. H15B-103/GW/60-64				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-1-08 1445				MATRIX GW				FIELD I.D. H15B-102/GW/60-64				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-1-08 1420				MATRIX H2O				FIELD I.D. 20081201-TB-2				CONTAINER NO. 2				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 0900				MATRIX GW				FIELD I.D. H15B-102/GW/70-74				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 0915				MATRIX GW				FIELD I.D. H15B-103/GW/70-74				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1045				MATRIX GW				FIELD I.D. H15B-102/GW/80-84				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1110				MATRIX GW				FIELD I.D. H15B-103/GW/80-84				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1430				MATRIX GW				FIELD I.D. H15B-102/GW/50-54				CONTAINER NO. 6				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1520				MATRIX GW				FIELD I.D. H15B-103/GW/70-74				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1520				MATRIX GW				FIELD I.D. H15B-102/GW/80-84				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			
DATE 12-2-08 1520				MATRIX GW				FIELD I.D. H15B-103/GW/80-84				CONTAINER NO. 4				ANALYSIS REQUESTED ORGANIC: <input checked="" type="checkbox"/> INORG: <input type="checkbox"/>				LAB I.D. NO. 0013056-001				REMARKS: 			

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid Hempstead MGP PDI

11000.59052111#

SAMPLE ERS: (signature) VClient

Jeffrey B. Hardman URS

DELIVERABLES:

TURNAROUND TIME:

FIELD I.D.

DATE	TIME	WEATHER
10-4-78	1345	GW HSB-105/GW/70-74

Refrained by (Signature)

31-12-11

12.9.08	1515
Deborah Donatone	

Disseminated by: (Signature)

16.00	16.00
-------	-------

Time	Date	At
11:30	11/11/11	11/11/11
12:00	11/11/11	11/11/11
12:30	11/11/11	11/11/11
13:00	11/11/11	11/11/11
13:30	11/11/11	11/11/11
14:00	11/11/11	11/11/11
14:30	11/11/11	11/11/11
15:00	11/11/11	11/11/11
15:30	11/11/11	11/11/11
16:00	11/11/11	11/11/11
16:30	11/11/11	11/11/11
17:00	11/11/11	11/11/11
17:30	11/11/11	11/11/11
18:00	11/11/11	11/11/11
18:30	11/11/11	11/11/11
19:00	11/11/11	11/11/11
19:30	11/11/11	11/11/11
20:00	11/11/11	11/11/11
20:30	11/11/11	11/11/11
21:00	11/11/11	11/11/11
21:30	11/11/11	11/11/11
22:00	11/11/11	11/11/11
22:30	11/11/11	11/11/11
23:00	11/11/11	11/11/11
23:30	11/11/11	11/11/11
24:00	11/11/11	11/11/11

Relinquished by: (Signature)

—

Belonged to / Location	Date	Time
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Samuel R. Delany, Jr. *University of California, Los Angeles*

[illegible]

WHITE COPY - ORIGINAL
KEY-CRS047 A24

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

KEY-COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist KEY-URS047

Client Name KEY-URS

Date and Time Received: 12/4/2008 4:00:00 PM

Work Order Number 0813976

Received by EM

Checklist completed by

Emil W. King
Signature Date 12/4/08

Reviewed by

RA
Initials Date 12/8/08

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: -001A: 2 vials w/ headspace (25mm & 12mm); -002A: 1 vial (2mm); -003A: 2 vials (1.5 & 12mm);
-004A: 1 vial (2mm); -005A: 2 vials (6mm & 5mm).

Corrective Action _____

KEY-URS047 A25

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/4/08, 12/5/08, 12/8/08 & 12/9/08
SDG #: KEY-URS048

For Samples:

HISB-106/GW/30-34	20081208-FD-1
HISB-106/GW/40-44	HISB-107/GW/30-34
HISB-106/GW/50-54	HISB-107/GW/40-44
HISB-106/GW/60-64	HISB-107/GW/50-54
HISB-106/GW/70-74	HISB-107/GW/60-64
HISB-105/GW/80-84	20081208-TB-1
HISB-105/GW/90-94	HISB-107/GW/70-74
HISB-106/GW/80-84	HISB-107/GW/80-84
HISB-106/GW/90-94	HISB-107/GW/90-94
20081205-TB-1	20081209-TB-1

The above samples were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HISB-107/GW/50-54 was analyzed as the matrix spike/ matrix spike duplicate.

Samples HISB-106/GW/30-34, HISB-106/GW/40-44, HISB-106/GW/50-54, HISB-106/GW/60-64, 20081208-FD-1 and HISB-107/GW/50-54 were reanalyzed at a dilution due to concentration levels of targeted analytes above the concentration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 23, 2008

*

*

*

Joann M. Slavin
Senior Vice President

*

*

*

KEY-URS048 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES SAMPLES RECEIVED: 12/4/08 – 12/9/08 SDG #: KEY-URS048

For Samples:

HISB-106/GW/30-34	HISB-105/GW/90-94	HISB-107/GW/50-54
HISB-106/GW/40-44	HISB-106/GW/80-84	HISB-107/GW/60-64
HISB-106/GW/50-54	HISB-106/GW/90-94	HISB-107/GW/70-74
HISB-106/GW/60-64	20081208-FD-1	HISB-107/GW/80-84
HISB-106/GW/70-74	HISB-107/GW/30-34	HISB-107/GW/90-94
HISB-105/GW/80-84	HISB-107/GW/40-44	

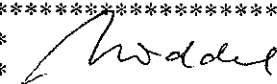
The above water samples were extracted by EPA method 3510B and analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

- Sample HISB-107/GW/50-54 was analyzed as the matrix spike/matrix spike duplicate.
- All percent recoveries for the three lab fortified blanks met the QC limits. RPDs and recoveries for pyrene in the MS and MSD were also within the limits. Note that QC limits do not apply for acenaphthene, because the spiking level was not a multiple of the sample concentration.
- Six samples were reanalyzed at dilutions in order to keep instrument readings within the calibration range.
- All surrogate standards are "diluted out" (below reportable level) in the dilution of sample HISB-106/GW/50-54.
- The same sample showed a low response (below the QC limit) for the internal standard naphthalene-d8 due to interference by the high naphthalene concentration.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 16, 2008

*  *
*

Ursula Middel
Technical Manager

KEY-URS048 A4

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 12/04/08, 12/08/08 & 12/09/08
SDG: KEY-URS048

For Samples:

HISB-106/GW/50-54
HISB-106/GW/70-74
20081208-FD-1
HISB-107/GW/50-54
HISB-107/GW/70-74

Five water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 22, 2008

*
*
*

Vincent Stancampiano
Vice President

KEY-URS048 A5

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

23393

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER

National Grid Hempstead MGP PDI
1175065.00011

SAMPLERS: (signature)/Client

Jeffrey H. Davidson URS

DELIVERABLES:

TURNAROUND TIME:

CLIENT: URS

Sample Container Description

BTEX # 82608
PAH # 8270C
Nitrite
Nitrate (#2504)
ATK
ortho phosphate

NOTES:

H2M SDG NO: KEY-URS-048

Project Contact:

Kevin Connare
Jeff Harriman

Phone Number:

PIS/Quote #

ANALYSIS REQUESTED

ORGANIC
VOC
BPA
Pb/Cd
Metal
CN

INORG.

FIELD I.D.

DATE

TIME

MATRIX

LAB I.D. NO.

REMARKS:

12-4-08	0900	H2O	2008-12-04-TB-1	0813976-006A	KEY-URS-048
12-4-08	0900	GW	H15B-105/GW/30-34	-001 AB	
12-4-08	0945	GW	H15B-105/GW/40-44	-002 AB	
12-4-08	1045	GW	H15B-105/GW/50-54	-003A-D	
12-4-08	1145	GW	H15B-105/GW/60-64	-004 AB	
12-4-08	0900	GW	H15B-106/GW/30-34	0813977-001AB	KEY-URS-048
12-4-08	0940	GW	H15B-106/GW/40-44	-002 AB	
12-4-08	1045	GW	H15B-106/GW/50-54	-003A-D	
12-4-08	1130	GW	H15B-106/GW/60-64	-004 AB	
12-4-08	1335	GW	H15B-106/GW/70-74	-005A-D	

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Jeffrey H. Davidson

12-4-08

15:15

S. Wad

Jeffrey H. Davidson

12-4-08

16:00

S. Wad

S. Wad

12-4-08

16:00

S. Wad

S. Wad

12-4-08

16:00

S. Wad

S. Wad

12-4-08

16:00

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12-4-08

16:00

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12-4-08

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12-4-08

16:00

S. Wad

S. Wad

12-4-08

16:00

S. Wad

LABORATORY USE ONLY

Discrepancies Between

Sample Labels and

COC Record? Y or N

Explain:

Samples were:

1. Shipped or Hand Delivered

2. Ambient or Chilled, Temp

3. Received in good condition: Y or N

4. Properly preserved: Y or N

COC Table used:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

3. COC record present & complete upon sample receipt: Y or N

4. COC record present & complete upon sample receipt: Y or N

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS048*

Client Name KEY-URS

Date and Time Received: 12/4/2008 4:00:00 PM

Work Order Number 0813977

Received by EM

Checklist completed by

Signature

Date

12/4/08

Reviewed by

Initials

Date

RA

12/9/08

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted *YES* Date contacted: *12/9/08* Person contacted *JEFF HARSHMAN*

Contacted by: *JEFF HARSHMAN* Regarding _____ *(LEFT VOICE MAIL)*

Comments: *-003A: 2 vials w/ headspace (5mm + 4mm); -004A: 2 vial w/ headspace (4mm + 2mm);*

-005A - 1035 on bottle but 1045 on chain; -005 - 1345 on bottle but 1335 on bottle.

COC.

Corrective Action _____ *3/18/09*

KEY-URS048 A8

90982

EXTERNAL CHAIN OF CUSTODY

57E Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-2040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

PROJECT NAME: National Grid Hempstead MGP PDI
11175065.00011

#11175065.00011

SAMPLE ERS: (signature)\Client

Signature/Client
Jeffrey D. Schwartzman URS

DELIVERABLES:

TURNAROUND TIME:[illegible]

KRMETERCOP8-AORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

PROJECT NAME/NUMBER
National Grid Hempstead MGP PDI
1175065.00011

SAMPLERS: (signature)/Client

Jeffrey K. Harshman

DELIVERABLES:

TURNAROUND TIME:

CLIENT: VRS		H2M SDG NO: VEX-W65048	
Sample Container Description		Project Contact: Kevin Connare Jeff Harshman	
BTEX x 82608		Phone Number:	
PAH x 8270C		PIS/Quote #	
N: Nitrate			
A: Nitrite			
Ortho Phosphate			

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED				Total No. of Containers	Sample Container Description	INORG.	Metal	CN	LAB I.D. NO.	REMARKS:
				ORGANIC	PAH	BNA	PBB							
12-8-08	1030	GW	20081208-TB-1	X				2					0X14068 - 006A	
12-8-08	1030	GW	H15B-107/GW/30-34	X				4					- 002 AB	
12-8-08	1130	GW	H15B-107/GW/40-44	X				4					- 003 AB	
12-8-08	1330	GW	H15B-107/GW/50-54	X				6					- 004 ABCD	
12-8-08	1330	GW	H15B-107/GW/50-54	X				4					↓	MS
12-8-08	1330	GW	H15B-107/GW/50-54	X				4					↓	MSD
12-8-08	1330	GW	20081208-FD-1	X				6					- 001 ABCD	
12-8-08	1500	GW	H15B-107/GW/60-64	X				4					- 005 AB	

Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey K. Harshman</i>		12/8/08	15:25	<i>SW</i>	12/8/08	15:25
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
<i>SW</i>		12/8/08	16:20	<i>SW</i>	12/11/08	16:20
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N		Samples were:	
Y or N		1. Shipped or Hand Delivered <input checked="" type="checkbox"/> Airbill#	
Y or N		2. Ambient or chilled, Temp	
Y or N		3. Received in good condition Y or N	
Y or N		4. Properly preserved Y or N	
COC Tape was:			
1. Present on outer package: Y or N			
2. Unbroken on outer package: Y or N			
3. COC record present & complete upon sample receipt: Y or N			

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 048*

Client Name KEY-URS

Date and Time Received: 12/8/2008 4:20:00 PM

Work Order Number 0814068

Received by EM

Checklist completed by

E. Murphy 12/8/08
Signature Date

Reviewed by

JJA 12/10/08
Initials Date

Matrix

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted *NO* Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: *- OUSA: one vial has headspace (3mm)*

Corrective Action _____

KEY-URS048 A22

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

20011

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid Hempstead MGP PDI # 11175065.00011		CLIENT: URS		H2M SDG NO: KEY-URS048/250		Project Contact: Kevin Connors Jeff Harshman		Phone Number:		PIS/Quote #	
SAMPLERS: (signature)/Client Jeffrey N. Harshman URS		DELIVERABLES:		TURNAROUND TIME:		ANALYSIS REQUESTED		INORG.		REMARKS:	
DATE		TIME		MATRIX		FIELD I.D.		LAB I.D. NO.			
12-9-08		0930		GW		H15B-107/GW/70-74		0814135-44A			
12-9-08		0955		GW		H15B-108/GW/30-34		0814133-001AS			
12-9-08		1050		GW		H15B-108/GW/40-44		0814135-002AS			
12-9-08		1110		GW		H15B-107/GW/80-84		0814135-003AS			
12-9-08		1330		GW		H15B-107/GW/90-94		0814133-003AS			
12-9-08		1140		GW		H15B-108/GW/50-54		0814133-004AS			
12-9-08		1330		GW		H15B-108/GW/60-64					
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
Jeffrey N. Harshman		12/9/08		1502		S. Wad		12-9-08		1502	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
S. Wad		12-4-08		1557		Jeffrey N. Harshman		12/9/08		1557	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time	

WHITE COPY ORIGINAL
KEY-URS048 A29

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/9/08, 12/10/28 & 12/11/08
SDG #: KEY-URS050

For Samples:

HISB-108/GW/30-34	HISB-109/GW/40-44
HISB-108/GW/40-44	HISB-109/GW/50-54
HISB-108/GW/50-54	HISB-109/GW/60-64
HISB-108/GW/60-64	20081210-TB-1
HISB-108/GW/70-74	HISB-109/GW/70-74
HISB-108/GW/80-84	HISB-109/GW/80-84
HISB-108/GW/90-94	HISB-109/GW/90-94
HISB-109/GW/30-34	20081211-TB-1

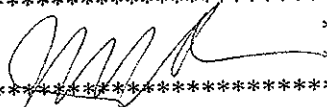
The above samples were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 7, 2009

*  *
*

Joann M. Slavin
Senior Vice President

KEY-URS050 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS SAMPLES RECEIVED: 12/9/08, 12/10/08 & 12/11/08 SDG #: KEY-URS050

For Samples:

HISB-108/GW/80-84	HISB-109/GW/50-54	HISB-108/GW/50-54
HISB-108/GW/90-94	HISB-109/GW/60-64	HISB-108/GW/60-64
HISB-108/GW/70-74	HISB-109/GW/70-74	HISB-108/GW/40-44
HISB-109/GW/30-34	HISB-109/GW/80-84	HISB-108/GW/30-34
HISB-109/GW/40-44	HISB-109/GW/90-94	

The above water samples were extracted by EPA Method 3510C. Samples were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike/ matrix spike duplicate was requested. Three lab-fortified blanks (LFB) were analyzed and indicate good method efficiency. All recoveries were within QC limits with the exception of a low naphthalene recovery of 35% in LFB-29420 (lower limit 47%). Based on that low recovery, naphthalene results for samples extracted in that batch may be biased low. This affects all samples extracted on 12/15/08.
- The surrogate nitrobenzene-d5 did not recover in sample HISB-109⁸/GW/90-94. The sample was re-extracted (out of hold) with similar results. Both sets of data are submitted, demonstrating a matrix effect. It should be noted that due to limited sample volume, 800 mL of sample were used for the re-extraction. Reporting limits were not adjusted since the calibration included a 5 ng/ μ L standard as the lowest level.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 30, 2008

* Nicole R. Crespi *

Nicole R. Crespi
Quality Assurance Manager

KEY-URS050 A4

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS050

	EPA SAMPLE NO.	S1 NBZ#	S2 FBP#	S3 TPH#	S4 DCB#					TOT OUT
01	MB-29376	66	52	68	37					0
02	LFB-29376	68	65	71	43					0
03	108/GW/30-34	75	63	66	55					0
04	108/GW/40-44	69	67	65	61					0
05	108/GW/50-54	76	60	70	50					0
06	108/GW/60-64	67	65	66	50					0
07	MB-29420	78	64	90	47					0
08	LFB-29420	75	70	83	52					0
09	108/GW/70-74	78	75	80	58					0
10	108/GW/80-84	78	70	80	59					0
11	108/GW/90-94	0 *	60	51	47					1
12	109/GW/30-34	76	74	82	61					0
13	109/GW/50-54	79	71	81	59					0
14	109/GW/60-64	74	72	86	58					0
15	109/GW/70-74	79	73	79	56					0
16	109/GW/80-84	79	76	84	60					0
17	109/GW/90-94	80	73	74	59					0
18	109/GW/40-44	78	77	81	60					0
19	MB-29474	74	69	85	57					0
20	LFB-29474	76	70	88	55					0
21	108/GW/90-94RE	0 *	69	55	57					1

QC LIMITS

S 1 NBZ = Nitrobenzene-d5 (35-114)
 S 2 FBP = 2-Fluorobiphenyl (43-116)
 S 3 TPH = 4-Terphenyl-d14 (33-141)
 S 4 DCB = 1,2-Dichlorobenzene-d4 (16-110)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS050

Sample ID LFB-29420 Level: (low/med) LOW

Column ID R-5SILMS Column Diam .25

Inst. ID HP5972 Init. Calib. Date(s): 11/21/08 10:15

Analysis Date: 12/16/08 12:48 11/21/08 13:20

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Naphthalene	50	0	17	35*	47-117
2-Methylnaphthalene	50	0	20	40	13-151
Acenaphthylene	50	0	33	67	36-132
Acenaphthene	50	0	33	67	51-133
Fluorene	50	0	38	76	55-129
Phenanthrene	50	0	41	83	57-135
Anthracene	50	0	46	92	61-135
Fluoranthene	50	0	46	93	61-135
Pyrene	50	0	46	92	58-136
Benzo(a)anthracene	50	0	43	86	56-136
Chrysene	50	0	43	85	38-170
Benzo(b)fluoranthene	50	0	42	84	43-147
Benzo(k)fluoranthene	50	0	39	78	53-159
Benzo(a)pyrene	50	0	40	80	47-141
Indeno(1,2,3-cd)pyrene	50	0	43	86	26-156
Dibenzo(a,h)anthracene	50	0	41	81	15-185
Benzo(g,h,i)perylene	50	0	42	84	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 17 outside limits

COMMENTS: _____

SEMI-VOLATILES SAMPLE PREPARATION

8002/51/21

01-70
50-70

SDG#: 664-10500 DELIV CODE: 01-70
661194 80-70

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TEST CODE: 8270.W-TCL

PG 11

Supervisor Signature: _____

Date: 12/15/08

KEY-URS050 B165

SAMPLES										Comments/ Sample Description	pH Calibration: READING OF 4.0 BUFFER (3.9-4.1) READING OF 10.0 BUFFER (9.9-10.1)
Lab Id #	Customer#	Int'l Vol/Wt	pH	GPC COL#							
1	081410-001B	KEI-UR5	1L	2/11							
2	002B										
3	003B										
4	004B										
5	005B										
6	006B										
7	007B										
8	081424-001B										
9	002B										
10	003B										
11	0814293-001B	KEI-6CI									
12	002B										
13	003B										
14	004B										
15	005B										
16											
17											
18											
19											
20											

pH Calibration:										
READING OF 4.0 BUFFER (3.9-4.1)										
READING OF 10.0 BUFFER (9.9-10.1)										
BLANKS					Vol/Wt	GPC COL	Spike Sol#	Lot	Vol uL	Verif. By
B1- 29420					1L					
B2-										
B3-										
SPIKED SAMPLES										
081423-001B MS					1L		MS952	AI	500	
081423-001B MSD					1L		MS952	AI	500	
MS										
MSD										
SPIKED BLANKS										
MSB- 29420					1L		MS952	AI	500	
MSBD-										
LFB1-29420					1L		QC625	Z	500	
LFB2-										
1)					SURR SOL.		55952	T	500	
2)					SURR SOL.					
a) Run MSB for AC, AS 8270/PP8080 with MS sol.										
b) Run LFB for all codes with QC sol except AC										
c) Spike samples for AC and any 8270/PP8080 w/ MS sol., all others with QC sol										
REAGENTS										
					Lot #			Lot #		Prep Date
CH2Cl2					47291		FLORISIL			
HEXANE							Na2SO4			
ACETONE							NaCl			

EXTR. OR DIL.	Start End	Date	Time	Final Vol	Analyst	Comments
CONC. 1		12/15/2008	9:27AM	250mL	SH/ECT	
CONC. 2				NSmL	GD	
				1.0mL	↓	KD S-EVAP TURB
					Analyst	KD N-EVAP TURB
						Comments
C	GPC					
L	H2SO4					
E	SULFUR					
A	FLORISIL					
N	OTHER					

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 12/09/08, 12/10/08 & 12/11/08
SDG #: KEY-URS050**

For Samples:

HISB-108/GW/50-54
HISB-108/GW/70-74
HISB-109/GW/50-54
HISB-109/GW/70-74

Four water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 23, 2008

*
*
*

Vincent Stancampiano
Vice President

KEY-URS050 A5

28612

EXTERNAL CHAIN OF CUSTODY

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER
National Grid Hempstead MGP POI
1175065.00011

SAMPLERS: (signature)/Client
Jeff Hershman URS
Megan Rosal URS

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.	Total No. of Containers	ANALYSIS REQUESTED	ORGANIC	INORG.	LAB I.D. NO.	REMARKS:
12-10-08		H2O	20081210-TB-1	2		X		0814190-1208A	
12-10-08	1015	6W	H15B-109/6W/30-34	4		X		-004AB	
12-10-08	0950	6W	H15B-108/6W/70-74	6		X		-001AB	only 1 P44 bottle
12-10-08	1100	6W	H15B-109/6W/40-44	3		X		-005AB	
12-10-08	1100	6W	H15B-108/6W/80-84	4		X		-002 ↓	
12-10-08	1330	6W	H15B-109/6W/50-54	6		X		-006 AB-C	
12-10-08	1205	6W	H15B-108/6W/90-94	4		X		-003 M3	
12-10-08	1430	6W	H15B-109/6W/60-64	4		X		-001 ↓	

Relinquished by: (Signature) <i>Jeff Hershman</i>		Date 12/10/08	Time 1506	Received by: (Signature) <i>S.W. ed</i>	Date 12-10-08	Time 15:06
Relinquished by: (Signature) <i>S.W. ed</i>		Date 12-10-08	Time 16:05	Received by: (Signature) <i>S.W. ed</i>	Date 12/10/08	Time 16:05
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time

CLIENT: URS

Project Contact:
Kevin Connors
Jeff Hershman

Phone Number:

PIS/Quote #

H2M SDG NO: *KE-1-URS 050*

NOTES:

Sample Container Description: *Ortho Phosphate*

ANALYSIS REQUESTED: *Alk Nitrate Nitrate P44 x 82-70C BTEX x 82-60B*

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

COG Type was:

1. Shipped or Hand Delivered ☒ Airbill#

2. Ambient or chilled, Temp. ☒ or N

3. Received in good condition ☒ or N

4. Properly preserved ☒ or N

COG Type was:

1. Present on outer package: Y or N ☒

2. Unbroken on outer package: Y or N ☒

3. COC record present & complete upon sample receipt: Y or N ☒

KEY-URS050-AT5
WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 050*

Client Name KEY-URS

Date and Time Received: 12/10/2008 4:05:00 PM

Work Order Number 0814190

Received by EM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Applicable ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Applicable ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Applicable ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☐

No ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding _____

Comments:

*-005A: both vials have headspace (20mm + 15mm); -004A: both vials (10mm + 4mm);
-005A: both vials (12mm + 16mm); -003A: one vial (8mm).*

Corrective Action _____

KEY-URS050 A16

H2M LABS, INC.

Sample Receipt Checklist

KEY-URS050

Client Name KEY-URS

Date and Time Received: 12/11/2008 3:58:00 PM

Work Order Number 0814254

Received by EM

Checklist completed by

[Signature] 12/11/08
Signature Date

Reviewed by

[Signature] 12/12/08
Initials Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Applicable ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Applicable ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Applicable ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☐

Yes ☐

No ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding _____

Comments:

-002A: one vial w/headspace (2mm); -003A: two vials (both 6mm);
-004A (temp blank): one vial (2mm)

Corrective Action _____

KEY-URS050 A24

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/18/08 & 12/23/08
SDG #: KEY-URS051

For Sample(s):

HISB-105-2/GW/30-34	DUP-1 12232008
HISB-105-2/GW/40-44	HISB-114/GW/30-34
HISB-105-2/GW/50-54	HISB-114/GW/40-44
HISB-105-2/GW/60-64	HISB-114/GW/50-54
HISB-105-2/GW/70-74	HISB-114/GW/60-64
HISB-105-2/GW/80-84	HISB-114/GW/70-74
HISB-105-2/GW/90-94	HISB-114/GW/80-84
HISB-105-2/GW/100-104	HISB-114/GW/90-94
20081217-TB-1	20081223-TB-1

The above sample(s) were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample(s) HISB-114/GW/70-74 was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met.

Lab fortified blanks were analyzed. All percent recoveries were within QC limits except for a 69% recovery for toluene (lower limit 70%).

Sample HISB-105-2/GW/60-64 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 13, 2009

*
*
*

Joan M. Slavin
Senior Vice President

KEY-URS051 A3

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS051
Sample ID LFB123108 Level: (low/med) LOW
Column ID ZB-624 Column Diam .18
Inst. ID HP5971 Init. Calib. Date(s): 08/26/08 12:00
Analysis Date: 12/31/08 12:35 08/26/08 17:23

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Benzene	50	0	36	73	50-127
Toluene	50	0	34	69*	70-125
Ethylbenzene	50	0	40	80	68-128
Xylene (total)	150	0	130	85	70-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 4 outside limits

COMMENTS: _____

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS SAMPLE RECEIVED: 12/18/08 & 12/23/08 SDG #: KEY-URS051

For Sample(s):

HISB-105-2/GW/30-34	DUP-1 12232008
HISB-105-2/GW/40-44	HISB-114/GW/30-34
HISB-105-2/GW/50-54	HISB-114/GW/40-44
HISB-105-2/GW/60-64	HISB-114/GW/50-54
HISB-105-2/GW/70-74	HISB-114/GW/60-64
HISB-105-2/GW/80-84	HISB-114/GW/70-74
HISB-105-2/GW/90-94	HISB-114/GW/80-84
HISB-105-2/GW/100-104	HISB-114/GW/90-94
20081217-TB-1	20081223-TB-1

2/24/09
The above water sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HISB-114/GW/70-74 was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. Lab fortified blanks were analyzed. All percent recoveries were within QC limits except for a slightly low recovery for naphthalene in LFB 29534 and 29540.

Samples HISB-105-2/GW/50-54, HISB-105-2/GW/60-64 and HISB-105-2/GW/90-94 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Sample HISB-105-2/GW/60-64 had a high surrogate recovery for d5 nitrobenzene. All surrogate recoveries are diluted out in the dilution. The undiluted analysis also had low internal standard area counts. All area counts were acceptable in the dilution.

Sample HISB-105-2/GW/70-74 had percent recoveries for d5 nitrobenzene below 10%. The sample was re-extracted outside of the extraction holding times. The re-extract exhibited similarly low surrogate recoveries for d5 nitrobenzene. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 12, 2009

*
*

Joann M. Slavin
Senior Vice President

KEY-URS051 A4

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS051

Sample ID LFB-29534 Level: (low/med) LOW

Column ID R-5SILMS Column Diam .25

Inst. ID HP5972 Init. Calib. Date(s): 12/25/08 15:12

Analysis Date: 12/29/08 13:21 12/25/08 19:15

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Naphthalene	50	0	23	45*	47-117
2-Methylnaphthalene	50	0	22	45	13-151
Acenaphthylene	50	0	30	59	36-132
Acenaphthene	50	0	28	57	51-133
Fluorene	50	0	34	68	55-129
Phenanthrene	50	0	40	80	57-135
Anthracene	50	0	38	77	61-135
Fluoranthene	50	0	40	79	61-135
Pyrene	50	0	41	81	58-136
Benzo(a)anthracene	50	0	39	79	56-136
Chrysene	50	0	37	74	38-170
Benzo(b)fluoranthene	50	0	35	70	43-147
Benzo(k)fluoranthene	50	0	42	83	53-159
Benzo(a)pyrene	50	0	39	78	47-141
Indeno(1,2,3-cd)pyrene	50	0	40	80	26-156
Dibenzo(a,h)anthracene	50	0	39	79	15-185
Benzo(g,h,i)perylene	50	0	39	78	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 17 outside limits

COMMENTS: _____

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS051
 Sample ID LFB-29540 Level: (low/med) LOW
 Column ID R-5SILMS Column Diam .25
 Inst. ID HP5972 Init. Calib. Date(s): 12/25/08 15:12
 Analysis Date: 12/30/08 18:20 12/25/08 19:15

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Naphthalene	50	0	22	43*	47-117
2-Methylnaphthalene	50	0	25	50	13-151
Acenaphthylene	50	0	31	63	36-132
Acenaphthene	50	0	31	61	51-133
Fluorene	50	0	34	68	55-129
Phenanthrene	50	0	39	79	57-135
Anthracene	50	0	37	74	61-135
Fluoranthene	50	0	37	74	61-135
Pyrene	50	0	38	76	58-136
Benzo(a)anthracene	50	0	36	72	56-136
Chrysene	50	0	34	69	38-170
Benzo(b)fluoranthene	50	0	33	65	43-147
Benzo(k)fluoranthene	50	0	34	69	53-159
Benzo(a)pyrene	50	0	34	68	47-141
Indeno(1,2,3-cd)pyrene	50	0	35	70	26-156
Dibenzo(a,h)anthracene	50	0	34	67	15-185
Benzo(g,h,i)perylene	50	0	34	68	25-153

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 17 outside limits

COMMENTS: _____

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS051
Lab File ID: A\C44272.D DFTPP Injection Date: 12/29/08
Instrument ID: HP5972 DFTPP Injection Time: 10:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	47.3
70	Less than 2.0% of mass 69	0.1 (0.1)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	23.4
365	Greater than 1.0% of mass 198	2.6
441	Present, but less than mass 443	7.5
442	40.0 - 110.0% of mass 198	72.7
443	17.0 - 23.0% of mass 442	14.7 (20.2)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC44273.D	12/29/08	11:13
02	MB-29534	MB-29534	AIC44276.D	12/29/08	12:49
03	LFB-29534	LFB-29534	AIC44277.D	12/29/08	13:21
04	2/GW/30-34	0814495-001B	AIC44278.D	12/29/08	13:54
05	2/GW/40-44	0814495-002B	AIC44279.D	12/29/08	14:26
06	2/GW/50-54	0814495-003B	AIC44280.D	12/29/08	14:59
07	2/GW/60-64	0814495-004B	AIC44281.D	12/29/08	15:31
08	105-2/GW/70-74	0814495-005B	AIC44282.D	12/29/08	16:04
09	2/GW/80-84	0814495-006B	AIC44283.D	12/29/08	16:36
10	2/GW/90-94	0814495-007B	AIC44284.D	12/29/08	17:08
11	2/GW/100-104	0814495-008B	AIC44285.D	12/29/08	17:41
12	2/GW/50-54DL	0814495-003BDL	AIC44294.D	12/29/08	22:30
13	2/GW/60-64DL	0814495-004BDL	AIC44295.D	12/29/08	23:02

(BNA) IN WATER INITIAL CALIBRATION DATA

Contract: H2M LABS, INC.

SDG No.: KEY-URS051

Calibration Dates: 12/25/08 12/25/08

Calibration Times: 15:12

ID: .25 (mm)

LAB FILE ID:	SSTD005= C44229.D	SSTD010= C44230.D	SSTD025= C44226.D	SSTD040= C44231.D	SSTD060= C44232.D						
	SSTD080= C44233.D										
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	%	R ²
N-Nitrosodiphenylamine	0.8455560	0.8686688	0.7227435	0.7909130	0.7384872	0.6822195			0.775	9.4	*
1,2-Diphenylhydrazine	0.8577713	0.8713896	0.7191547	0.7460977	0.7143292	0.7072503			0.769	9.8	
4-Bromophenyl-phenylether	0.3256123	0.3410256	0.2844007	0.2954292	0.2857723	0.2683252			0.300	9.2	
Hexachlorobenzene	0.4397681	0.4437588	0.3716992	0.4093752	0.3920659	0.3566351			0.402	8.9	
Pentachlorophenol	0.2361402	0.2705859	0.2353937	0.2489815	0.2324599	0.2109554			0.239	8.3	*
Phenanthrene	1.394663	1.3800877	1.0822604	1.0752093	1.0310157	0.9520423			1.153	16.3	
Anthracene	1.4103286	1.4412203	1.1692384	1.2504865	1.1809546	1.0655544			1.253	11.7	
Carbazole	1.213517	1.2877095	1.0748577	1.1622846	1.0735697	1.0026954			1.136	9.2	
Benzidine	0.2616974	0.3050736	0.2402016	0.1840505	0.1790898	0.1823235			0.225	23.1	
Di-n-butyl phthalate	1.9915092	1.9812728	1.5988769	1.7041474	1.5628637	1.4277316			1.711	13.5	
Fluoranthene	1.3131798	1.3804775	1.1134293	1.1851962	1.1126324	1.0248498			1.188	11.3	*
Pyrene	1.5102963	1.5806862	1.3067249	1.4015566	1.4460202	1.4457315			1.449	6.4	
Butyl benzyl phthalate	0.9275142	0.9382773	0.7276827	0.7749119	0.7773884	0.7672331			0.819	11.0	
3,3'-Dichlorobenzidine	0.51773304	0.4966738	0.4484998	0.4218894	0.4270174	0.4292168			0.457	8.9	
Benzo(a)anthracene	1.4690748	1.5305009	1.2627497	1.4300793	1.4418199	1.3682585			1.417	6.5	
Chrysene	1.3364596	1.4320908	1.1661047	1.2190897	1.1751373	1.2274194			1.259	8.3	
Bis(2-ethylhexyl)phthalate	1.3335458	1.3274827	1.0031322	1.0552838	1.0548974	1.0909129			1.144	12.8	
Octachlorocyclopentene	0.280595	0.2963061	0.2754973	0.2398279	0.2009514	0.1902278			0.247	17.9	
Di-n-octyl phthalate	2.2701725	2.2805358	1.7338906	1.8765054	1.6870587	1.6961917			1.924	14.6	*
Benzo(b)fluoranthene	1.6486243	1.7994902	1.3896573	1.6328469	1.5539327	1.4003463			1.571	10.0	
Benzo(k)fluoranthene	1.3662798	1.3257478	1.0616184	1.0318913	1.0536556	0.8478732			1.115	17.6	
Benzo(a)pyrene	1.3296873	1.3867184	1.1594301	1.3338638	1.2358412	1.1940515			1.273	7.1	*
Indeno(1,2,3-cd)pyrene	1.5926417	1.7055713	1.4051949	1.6493566	1.4767985	1.3629185			1.532	9.0	

SW8270C

KEY-URS051 B120

7D

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS051Instrument ID: HP5972Calibration Date: 12/29/08 Time: 11:13Lab File ID: A\C44273.DInit. Calib. Date(s): 12/25/08 12/25/08EPA Sample No. (SSTD050##): SSTD025Init. Calib. Times: 15:12 19:15GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	0.982	0.899		-8.4	
2-Methylnaphthalene	0.629	0.569		-9.5	
Acenaphthylene	1.971	1.798		-8.8	
Acenaphthene	1.231	1.109		-9.9	20.0
Fluorene	1.297	1.187		-8.5	
Phenanthrene	1.153	1.043		-9.5	
Anthracene	1.253	1.150		-8.2	
Fluoranthene	1.188	1.083		-8.9	20.0
Pyrene	1.449	1.348		-6.9	
Benzo(a)anthracene	1.417	1.259		-11.2	
Chrysene	1.259	1.128		-10.4	
Benzo(b)fluoranthene	1.571	1.246		-20.7	
Benzo(k)fluoranthene	1.115	1.136		1.9	
Benzo(a)pyrene	1.273	1.119		-12.1	20.0
Indeno(1,2,3-cd)pyrene	1.532	1.306		-14.8	
Dibenzo(a,h)anthracene	1.263	1.082		-14.3	
Benzo(g,h,i)perylene	1.306	1.104		-15.5	

All other compounds must meet a minimum RRF of 0.010.

FORM VII SV- 1

OLM04.2

KEY-URS051 B146

SEMI-VOLATILES SAMPLE PREPARATION

ASPBS-8270-W

EXTRACTION DATE: 12/23/2008

66R208
SSDG#: KEY-URS051
DELIV. CODE: R1-03
R1-70

TEST CODE: 8270-W-TCL

MATRIX:

WATER ✓

SOIL_____SLUDGE_____

OTHER (SPECIFY) _____

✓ EXTR. METHOD: SEPF CONT TUMB SONG SOXH PFEX BLEND DIL SOLID PHASE

SAMPLES					Comments/ Sample Description	pH Calibration: READING OF 4.0 BUFFER (3.9-4.1) READING OF 10.0 BUFFER (9.9-10.1)						
Lab Id #	Customer#	Int'l Vol/Wt	pH	GPC COL#								
1 0814983-001A	PCRVC	1L	≤2, ≥11			BLANKS	Vol/Wt	GPC COL	Spike Sol#	Lot	Vol uL	Verif. By
2 ↓ -002A	↓	1L				B1- 29534	1L					
3 0814989-001A	KEY-GEI					B2-						
4 0814795-001B	KEY-URS					B3-						
5 -002B						SPIKED SAMPLES						
6 -003B						MS						
7 -004B						MSD						
8 -005B						MS						
9 -006B						MSD						
10 -007B						SPIKED BLANKS						
11 ↓ -008B	↓					MSB-						
12 0814572-001A	VCS					MSBD-						
13 0814522-001B	KEY-GEI					LFB1- 29534	1L		06625	2	500	
14 -002B						LFB2-						
15 ↓ -003B	↓	↓	↓									
16						1)	SURR SOL.		55952	T	500	
17						2)	SURR SOL.					
18						a) Run MSB for AC, AS 8270/PP8080 with MS sol.						
19												
20												

a) Run MSB for AC, AS 8270/PP8080 with MS sol.

b) Run LFB for all codes with QC sol except AC

c) Spike samples for AC and any 8270/PP8080 w/ MS sol., all others with QC sol

		Date	Time	Final Vol	Analyst	Comments
EXTR. OR DIL.	Start	12/23/2008	11:41 AM		SW/ECF	
	End			~ 250 mL	✓	
CONC. 1				~ 5 mL	GD	
CONC. 2		✓		100 mL	✓	KD S-EVAP TURB
		Date	Int'l Vol.	Final Vol.	Analyst	KD S-EVAP TURB
	C	GPC				
	L	H2SO4				Comments
	E	SULFUR				
	A	FLORISIL				
	N	OTHER				

Supervisor Signature: _____

Date: _____

H2M LABS, INC.

661-UR5051 SEMI-VOLATILES SAMPLE PREPARATION

661209

EXTRACTION DATE: 12/16/2008

SDG#: 661207

DELIV. CODE: 80-70

TEST CODE: 8270-W-TCL

MATRIX: WATER ☒ SLUDGE

SOIL

OTHER (SPECIFY)


EXTR. METHOD: SEPF ☒ CONT ☒ TUMB ☐ SONG ☐ SOXH ☐ PFEX ☐ BLEND ☐ DIL ☐ SOLID PHASE

SAMPLES				Comments/ Sample Description		pH Calibration:			
Lab Id #	Customer#	Int'l Vol/Wt	pH	GPC COL#		READING OF 4.0 BUFFER (3.9-4.1)	READING OF 10.0 BUFFER (9.9-10.1)		
1 0814563-001B	KEY-661	1L	52.31						
2 002B									
3 003B									
4 004B									
5 0814630-001B									
6 002B									
7 003B									
8 004B									
9 0814631-001B									
10 002B									
11 003B									
12 004B									
13 0814642-001B	KEY-URS	1L	52.31						
14 002B									
15 003B									
16 004B									
17 005B									
18 006B									
19 007B									
20 008B									

EXTR. OR DIL.		Start	End	Date	Time	Final Vol	Analyst	Comments
CONC. 1						250mL	SH	
CONC. 2						25mL	GP	
						1.0mL	✓	KD SEVAP TURB
								KD SEVAP TURB
C	GPC							
L	H2SO4							
E	SULFUR							
A	FLORISIL							
N	OTHER							

REAGENTS			
Lot #	Lot #	Lot #	Prep Date
48326	FLORISIL		
	Na2SO4		
	NaCl		
	CH2Cl2		
	HEXANE		
	ACETONE		

a) Run MSB for AC, AS 8270/PP8080 with MS sol.
b) Run LFB for all codes with QC sol except AC
c) Spike samples for AC and any 8270/PP8080 w/ MS sol., all others with QC sol

Supervisor Signature: 

Date: 12/29/08

PG 32
KEY-URS051 B202

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 12/23/08
SDG #: KEY-URS051**

For Samples:

DUP-1 12232008
HISB-114/GW/50-54
HISB-114/GW/70-74

Three water samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

The initial 1/07/09 nitrate spiked sample HISB-114/GW/70-74 analysis recovered at 0% (spike not added). The sample was re-spiked and analyzed on 1/08/09 recovering at 100%. The reanalysis was utilized for reporting.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 13, 2009

*
*
*

Vincent Stancampiano
Vice President

KEY-URS051 A5



575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

22326

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER
National Grid Hempstead MGP POI
#11175065.00011

SAMPLERS: (signature)/Client
Jeff Harshman (URS)

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.
12-17-08		H2O	20081217-TB-1
12-18-08	1020	GW	H15B-105-2/GW/100-104
12-18-08	1045	GW	H15B-105-2/GW/90-94
12-18-08	1120	GW	H15B-105-2/GW/80-84
12-18-08	1150	GW	H15B-105-2/GW/70-74
12-18-08	1330	GW	H15B-105-2/GW/66-64
12-18-08	1350	GW	H15B-105-2/GW/50-54
12-18-08	1415	GW	H15B-105-2/GW/46-44
12-18-08	1445	GW	H15B-105-2/GW/30-34
12-18-08	1500	SOIL	H15B-106/67-69

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Jeff Harshman</i>	12/18/08	1530	<i>S.W.</i>	12/18/08	1530
<i>S.W.</i>	12/18/08	1628	<i>Jeff Harshman</i>	12/19/08	1628

PROJECT NAME/NUMBER
National Grid Hempstead MGP POI
#11175065.00011

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

CLIENT: URS

H2M SDG NO: KEY-URS05102

Project Contact:
Kevin Connors
Jeff Harshman
Phone Number:
P/S/Quote #

NOTES:

Sample Container Description	ANALYSIS REQUESTED
BTEX x 82608 PAH x 82702	ORGANIC VOA BNA PCB Metal CN

Sample Container	Total No. of Containers	ANALYSIS REQUESTED
↑	2	ORGANIC VOA BNA PCB Metal CN

LAB I.D. NO.	REMARKS:
0814495-051A	0814495-051
-008A9	
-007	
-006	
-005	
-004	
-003	
-002	
-001	
0814500-001AB	KEY-URS052

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:
1. Shipped or Hand Delivered ☒ Airbill#
2. Ambient or chilled, Temp
3. Received in good condition Y or N
4. Properly preserved Y or N

COC Tape was:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 051*

Client Name KEY-URS

Date and Time Received: 12/18/2008 4:28:00 PM

Work Order Number 0814495

Received by EM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES Date contacted: 12/22/08 Person contacted JEFF HARSHMAN

Contacted by: JEN ARACI Regarding _____

Comments: All vials had headspace ranging from 6mm to a small layer.
Chen 12-18-08

Corrective Action CLIENT SAID THEY ARE FULL WHEN FILLED.

KEY-URS051 A8

PROJECT NAME/NUMBER

National Grid PDI/Hempstead, NY

SAMPLERS: (signature)/Client

Morgan Daniels / URS

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.	ANALYSIS REQUESTED	ORGANIC	INORG.	REMARKS:
12/20/08	1445	GW	H15B-114/GW/90-94	PAH 8270C	X		0414642 - 008 AB
12/23/08	835	GW	H15B-114/GW/80-84	PAH 8270C	X		- 007 ↓
12/23/08	1155	GW	20081223-TB-1	PAH 8270C	X		- 001A VOA-BTEX only
12/23/08		GW	DUP-1 12-2308	PAH 8270C	X		- 001A-D
12/23	905	GW	H15B-114/GW/70-74 MS	PAH 8270C	X		- 006A-D
12/23	905	GW	H15B-114/GW/70-74 MSD	PAH 8270C	X		- 007 ↓
12/23	905	GW	H15B-114/GW/70-74	PAH 8270C	X		- 005 AB
12/23	940	GW	H15B-114/GW/60-64	PAH 8270C	X		- 004A-D
12/23	1045	GW	H15B-114/GW/50-54	PAH 8270C	X		- 003 AB
12/23	1120	GW	H15B-114/GW/40-44	PAH 8270C	X		

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Morgan Daniels</i>	12/23/08	15:01	<i>S. J. J.</i>	12/23/08	15:01
<i>S. J. J.</i>	12/23/08	16:06	<i>16.06 PM</i>	12/23/08	16:06

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

ORIGINAL

PINK COPY - LABORATORY

[illegible]

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS051*

Client Name KEY-URS

Date and Time Received: 12/23/2008 4:06:00 PM

Work Order Number 0814642

Received by EM

Checklist completed by

Eric C. [Signature] 12/23/08
Signature Date

Reviewed by

[Signature] 12/26/08
Initials Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: *-008 : collection time on bottle is 1440 and I logged it as such. on C.O.C.*

it is 1445.

Corrective Action _____

KEY-URS051 A15

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS

SAMPLES RECEIVED: 1/7/09 & 1/8/09

SDG #: KEY-URS055

For Sample(s):

HISB-102-2/GW/60-64

HISB-102-2/GW/70-74

HISB-102-2/GW/80-84

20090106-TB-1

HISB-102-2/GW/30-34

HISB-102-2/GW/40-44

HISB-102-2/GW/50-54

20090108-TB-1

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. Lab fortified blanks were analyzed. All percent recoveries were within or above QC limits.

Sample HISB-102-2/GW/40-44 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

4-Bromofluorobenzene had a 27.3 %D in the continuing calibration of 1/12/09. This is above 25 %D however within the upper limit of 40 %D.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 22, 2009

* 111 *

100

Joann M. Slavin
Senior Vice President

KEY-URS055 A3

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS055
Sample ID LFB011209 Level: (low/med) LOW
Column ID ZB-624 Column Diam .18
Inst. ID HP5971 Init. Calib. Date(s): 01/09/09 19:45
Analysis Date: 01/12/09 14:30 01/09/09 22:30

COMPOUND	SPIKE ADDED (µg/L)	SAMPLE CONCENTRATION (µg/L)	SPIKE CONCENTRATION (µg/L)	SPIKE % REC #	QC. LIMITS REC.
Benzene	50	0	63	126	50-127
Toluene	50	0	63	127*	70-125
Ethylbenzene	50	0	61	122	68-128
Xylene (total)	150	0	180	120	70-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 4 outside limits

COMMENTS: _____

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS055
 Lab File ID: A\A62915.D BFB Injection Date: 01/12/09
 Instrument ID: HP5971 BFB Injection Time: 11:56
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.9
75	30.0 - 60.0% of mass 95	42.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	58.8
175	5.0 - 9.0% of mass 174	4.0 (6.8)1
176	95.0 - 101.0% of mass 174	58.2 (99.0)1
177	5.0 - 9.0% of mass 176	3.5 (6.1)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	A\A62916.D	01/12/09	12:29
02	VBLK011209	VBLK011209	A\A62917.D	01/12/09	13:23
03	LFB011209	LFB011209	A\A62918.D	01/12/09	14:30
04	2/GW/60-64	0901190-001A	A\A62928.D	01/12/09	19:24
05	2/GW/70-74	0901190-002A	A\A62929.D	01/12/09	19:52
06	2/GW/80-84	0901190-003A	A\A62930.D	01/12/09	20:20
07	20090106-TB-1	0901190-004A	A\A62932.D	01/12/09	21:15
08	2/GW/30-34	0901220-001A	A\A62933.D	01/12/09	21:42
09	2/GW/40-44	0901220-002A	A\A62934.D	01/12/09	22:10
10	2/GW/50-54	0901220-003A	A\A62935.D	01/12/09	22:38
11	20090106-TB-1	0901220-004A	A\A62936.D	01/12/09	23:05

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 1/7/09 & 1/8/09

SDG #: KEY-URS055

For Sample(s):

HISB-102-2/GW/60-64 HISB-102-2/GW/30-34

HISB-102-2/GW/70-74 HISB-102-2/GW/40-44

HISB-102-2/GW/80-84 HISB-102-2/GW/50-54

The above water sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Samples HISB-102-2/GW/60-64, HISB-102-2/GW/30-34, HISB-102-2/GW/40-44 and HISB-102-2/GW/50-54 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 19, 2009

*
*

Joann M. Slavin
Senior Vice President

KEY-URS055 A4

H2M LABS, INC.

Sample Receipt Checklist KEY-URS055

Client Name KEY-URS

Date and Time Received: 1/7/2009 4:25:00 PM

Work Order Number 0901190

Received by EM

Checklist completed by

[Signature] 1/7/09
Signature Date

Reviewed by

[Signature] 1/9/09
Initials Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES Date contacted: 1/8/09 Person contacted JEFF HARSHMAN

Contacted by: JEN ARACLI Regarding _____

Comments: HISB -102-2/GW/60-64 has both vials w/headspace (5mm & 6mm); ... 70-74, both vials (6mm); ... 80-84 (both vials (4mm & 1.5mm); Tap blank, both vials (5mm & 2.5mm).

Corrective Action _____

KEY-URS055 A7

#11175065.00011

Jeffrey K. Savickman URS

TURNAROUND TIME:

Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time	LABORATORY USE ONLY	
[Signature]		1/8/09	1457	[Signature]	1-8-09	14.57	Discrepancies Between Sample Labels and COC Record? Y or N	Samples were: 1. Shipped _____ or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or chilled, Temp. _____ 3. Received in good condition: <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tag(s) was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N
[Signature]		1-8-09	15.55	[Signature]	1-8-09	1555	Discrepancies Between Sample Labels and COC Record? Y or N	Samples were: 1. Shipped _____ or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or chilled, Temp. _____ 3. Received in good condition: <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tag(s) was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N
[Signature]							Discrepancies Between Sample Labels and COC Record? Y or N	Samples were: 1. Shipped _____ or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or chilled, Temp. _____ 3. Received in good condition: <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tag(s) was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N
[Signature]							Discrepancies Between Sample Labels and COC Record? Y or N	Samples were: 1. Shipped _____ or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or chilled, Temp. _____ 3. Received in good condition: <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tag(s) was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 1/13/09, 1/14/09 & 1/16/09
SDG #: KEY-URS057

For Sample(s):

HIMW-3D	DUP-01	TRIP BLANK 1/14
HIMW-12I	DUP-02	FIELD BLANK
HIMW-12S	HIMW-12D	HIMW-3I
HIMW-13I	HIMW-13D	HIMW-3S
HIMW-13S	HIMW-14I	HIMW-5I
HIMW-14D	HIMW-15D	HIMW-5S
TRIP BLANK 1/13	HIMW-15I	TRIP BLANK 1/16

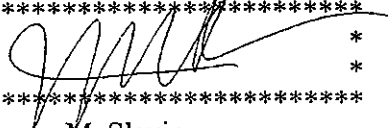
Sample HIMW-15D was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. Lab-fortified blanks were analyzed and indicate good method efficiency.

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 5, 2009

*  *
* *

Joann M. Slavin
Senior Vice President

KEY-URS057 A2A

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLE RECEIVED: 1/13/09, 1/14/09 & 1/16/09
SDG #: KEY-URS057

For Sample(s):

HIMW-3D	HIMW-13D
HIMW-12I	HIMW-14I
HIMW-12S	HIMW-15D
HIMW-13I	HIMW-15I
HIMW-13S	FIELD BLANK
HIMW-14D	HIMW-3I
DUP-01	HIMW-3S
DUP-02	HIMW-5I
HIMW-12D	HIMW-5S

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HIMW-15D was analyzed as the matrix spike / matrix spike duplicate. All percent recoveries and RPD's were met.

Sample HIMW-5I was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. All surrogate recoveries are diluted out in the dilution. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 27, 2009

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*
*

Joann M. Slavin
Senior Vice President

KEY-URS057 A3

Form 6

(BNA) IN WATER INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS057Instrument ID: HP5972Calibration Dates: 12/25/08 12/25/08Heated Purge: (Y/N) NCalibration Times: 15:12 19:15GC Column: R-5SILMSID: .25 (mm)

LAB FILE ID: <u>SSTD005= C44229.D</u>		<u>SSTD010= C44230.D</u>		<u>SSTD025= C44226.D</u>		<u>SSTD040= C44231.D</u>		<u>SSTD060= C44232.D</u>	
<u>SSTD080= C44233.D</u>		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD
COMPOUND									
N-Nitrosodiphenylamine	•	0.8455560	0.8686688	0.7227435	0.7909130	0.7384872	0.6822195	0.775	9.4
1,2-Diphenylhydrazine		0.8577713	0.8713896	0.7191547	0.7460977	0.7143292	0.7072503	0.769	9.8
4-Bromophenyl-phenylether		0.3256123	0.3410256	0.2844007	0.2954292	0.2857723	0.2683252	0.300	9.2
Hexachlorobenzene		0.4397681	0.4437588	0.3716892	0.4093752	0.3920659	0.3556351	0.402	8.9
Pentachlorophenol	•	0	0.2705859	0.2353937	0.2489815	0.2324599	0.2109554	0.240	9.2
Phenanthrene		1.394663	1.3800877	1.0822604	1.0752093	1.0310157	0.9520423	1.153	16.3
Anthracene		1.4103286	1.4412203	1.1692384	1.2504865	1.1809546	1.0655544	1.253	11.7
Carbazole		1.213517	1.2877095	1.0748577	1.1622846	1.0735697	1.0026954	1.136	9.2
Benzidine		0.2616974	0.3050736	0.2402016	0.1840505	0.1790898	0.1823235	0.225	23.1
Di-n-butyl phthalate		1.9915092	1.9812728	1.5988769	1.7041474	1.5628637	1.4277316	1.711	13.5
Fluoranthene	•	1.3131798	1.3804775	1.1134293	1.1851962	1.1126324	1.0248498	1.188	11.3
Pyrene		1.5102963	1.5806862	1.3067249	1.4015566	1.4460202	1.4457315	1.449	6.4
Butyl benzyl phthalate		0.9275142	0.9382773	0.7276827	0.7749119	0.7773884	0.7672331	0.819	11.0
3,3'-Dichlorobenzidine		0.5173304	0.4966738	0.4484998	0.4218894	0.4270174	0.4292168	0.457	8.9
Benzo(a)anthracene		1.4690748	1.5305009	1.2627497	1.4300793	1.4418199	1.3682585	1.417	6.5
Chrysene		1.3364596	1.4320908	1.1661047	1.2190897	1.1751373	1.2274194	1.259	8.3
Bis(2-ethylhexyl)phthalate		1.3335458	1.3274827	1.0031322	1.0552838	1.0548974	1.0909129	1.144	12.8
Octachlorocyclopentene		0.280595	0.2963061	0.2754973	0.2398279	0.2009514	0.1902278	0.247	17.9
Di-n-octyl phthalate	•	2.2701725	2.2805358	1.7338906	1.8765054	1.6870587	1.6961917	1.924	14.6
Benzo(b)fluoranthene		1.6486243	1.7994902	1.3896573	1.6328469	1.5539327	1.4003463	1.571	10.0
Benzo(k)fluoranthene		1.3662798	1.3257478	1.0616184	1.0318913	1.0536556	0.8478732	1.115	17.6
Benzo(a)pyrene	•	1.3296873	1.3867184	1.1584301	1.3338638	1.2358412	1.1940515	1.273	7.1
Indeno(1,2,3-cd)pyrene		1.5926417	1.7055713	1.4051949	1.6493566	1.4767985	1.3629185	1.532	9.0

FORM VI

SW8270C

KEY-URS057 B112

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY

SAMPLES RECEIVED: 1/13/09

SDG #: KEY-URS057

For Samples:

HIMW-12I

HIMW-12S

HIMW-13I

HIMW-12S

Samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity

SM2320B

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 20, 2009

*
*

Vincent Stancampiano
Vice President

KEY-URS057 A4

30065

EXTERNAL CHAIN OF CUSTODY

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid - Hempstead.

11175065.

SAMPLERS: (signature)/Client

Joanne Wigney - 3 URS.
David Swani

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.	Containers	ANALYSIS REQUESTED	INORG.	LAB I.D. NO.	REMARKS:
11/10/09	11:30		Himw - 3D.	4	2 2		0901376-001	
11/10/09	—		TRIP BLANK	4	2 2		-007	
11/10/09	15:00		Himw - 14D.	5	2 2		-005	
11/10/09	10:20		Himw - 13S.	5	2 2		-004	
11/10/09	12:20		Himw - 13I.	5	2 2		-003	
11/10/09	2:55		Himw - 12S.	5	2 2		-007	
11/10/09	4:35		Himw - 12I.					

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
gigney	11/10/09	0930	Received by: (Signature)	11/10/09	1517
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	11/10/09	1536	Received by: (Signature)	11/13/09	15:26
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

CLIENT:

H2M SDG NO: KEY-085057

Project Contact:

Kevin Conover

Phone Number:

716.923.1165

PIS/Quote #

11175065

NOTES:

BTEX (SW8260B)
PAHS (SW8270C)
Durham

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

SAMPLES WERE:

1. Shipped ☐ or Hand Delivered ☒ Airbill# _____

2. Ambient or chilled, Temp 0.5°C

3. Received in good condition: ☒ Y ☐ N

4. Properly preserved ☒ Y ☐ N

COC TAGS WERE:

1. Present on outer package: Y or N ☒ Y ☐ N

2. Unbroken on outer package: Y or N ☒ Y ☐ N

3. COC record present & complete upon sample receipt: ☒ Y ☐ N

PINK COPY - LABORATORY

YELLOW COPY - CLIENT

KEY-085057 ORIGINAL

H2M LABS, INC.

KEY-URS057

Sample Receipt Checklist

Client Name KEY-URS

Date and Time Received: 1/13/2009 3:36:00 PM

Work Order Number 0901376

Received by dmc

Checklist completed by

Signature

Date 1/13/09

Reviewed by

Initials JST

Date 1/15/09

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted

YES

Date contacted:

1/15/09

Person contacted

JANNE WRITE

Contacted by:

JAN ARRI

Regarding

Comments:

FOR SAMPLE HIMW-14D; ONE 1L BOTTLE CRACKED DUE TO SAMPLE BEING FROZEN. SPARE BOTTLE FOR HIMW-14D AND BOTH 1L BOTTLES FOR HIMW-3D CONTAINED PARTIAL FROZEN SAMPLES. NO SPARE VIAL RECEIVED FOR TRIP BLANK.

Corrective Action

FOR CRACKED BOTTLE, SAMPLE VOLUME WAS TRANSFERRED TO NEW BOTTLE AT LAB.

KEY-URS057 A7

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 1/14/09 & 1/15/09
SDG #: KEY-URS058

For Sample(s):

HISB-115/GW/50-54	HISB-115/GW/30-34
HISB-115/GW/60-64	HISB-115/GW/40-44
HISB-115/GW/70-74	20090115-TB-1
HISB-115/GW/80-84	
HISB-115/GW/90-94	
20090114-TB-1	

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A Lab fortified blank was analyzed. All percent recoveries were within or above QC limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 5, 2009

*
*

Joan M. Slavin
Senior Vice President

KEY-URS058 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLE RECEIVED: 1/14/09 & 1/15/09
SDG #: KEY-URS058

For Sample(s):

HISB-115/GW/50-54
HISB-115/GW/60-64
HISB-115/GW/70-74
HISB-115/GW/80-84
HISB-115/GW/90-94
HISB-115/GW/30-34
HISB-115/GW/40-44

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.


All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

Sample HISB-115/GW/50-54 and HISB-115/GW/70-74 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 27, 2009

*  *
* *

Joann M. Slavin
Senior Vice President

KEY-URS058 A4

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY

SAMPLES RECEIVED: 1/14/09

SDG #: KEY-URS058

For Samples:

HISB-115/GW/50-54

HISB-115/GW/70-74

Samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Alkalinity	SM2320B
Nitrite	EPA 353.2
Nitrate	EPA 353.2
Ortho Phosphate	SM4500-P E

Samples utilized for QC analysis were listed on the QC summary report.

3/3/09
~~The initial 1/07/09 nitrate spiked sample HISB-114/GW/70-74 analysis recovered at 0% (spike not added). The sample was re-spiked and analyzed on 1/08/09 recovering at 100%. The reanalysis was utilized for reporting.~~

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 20, 2009

*
*
*

Vincent Stancampiano
Vice President

KEY-URS058 A5

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

22330

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER
National Grid Hempstead MGP PDI
#1175065.00011

SAMPLERS: (signature)/Client

Jeffrey R. Harshman URS

DELIVERABLES:

TURNAROUND TIME: *Need results by 1/19/09*

DATE	TIME	MATRIX	FIELD I.D.	Containers	ANALYSIS REQUESTED	ORGANIC	INORG.	LAB I.D. NO.	REMARKS:
1-14-09	1115	GW	20090114-TB-1	2	BTEX x 82-608 PAH x 82-70C Nitrate Nitrite Aik Ortho phosphate	X		0901445-006A	KEY-UES 058
1-14-09	1115	GW	H15B-115/GW/90-44	4		X		-005AB	
1-14-09	1145	GW	H15B-115/GW/80-84	4		X		-004AB	
1-14-09	1315	GW	H15B-115/GW/70-74	6		X		-003A-D	
1-14-09	1345	GW	H15B-115/GW/60-64	4		X		-002AB	
1-14-09	1415	GW	H15B-115/GW/50-54	6		X		-001A-D	
1-14-09	1045	SOIL	D6P-272/24-25	2		X		0901440-001AB	KEY-UES 056

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey R. Harshman</i>	1/14/09	1450	<i>S. Ward</i>	1/14/09	1450
<i>S. Ward</i>	1-14-09	1615	<i>S. Ward</i>	1/14/09	1615

PROJECT NAME/NUMBER: National Grid Hempstead MGP PDI
SAMPLERS: (signature)/Client: *Jeffrey R. Harshman* URS
DELIVERABLES:
TURNAROUND TIME: *Need results by 1/19/09*

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

CLIENT: URS
H2M SDG NO: KEY-UES 058
Project Contact: Kevin Connors
Jeff Harshman
Phone Number: (603) 401-7322
PIS/Quote #

NOTES:

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N
Explain:

Samples were:
1. Shipped ___ or Hand Delivered ☒ Airbill#
2. Ambient or chilled, Temp ___
3. Received in good condition ☒ Y or N
4. Properly preserved ☒ Y or N

COC Tag # WBS:
1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

H2M LABS, INC.

Sample Receipt Checklist KEY-URS 058

Client Name KEY-URS

Date and Time Received: 1/14/2009 4:15:00 PM

Work Order Number 0901445

Received by EM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted yes

Date contacted: 1/16/09

Person contacted

JEFF HARSHMAN

Contacted by:

JED ARACRU

Regarding _____

Comments:

ALL vials had headspace ranging from 5mm to a layer.

Corrective Action






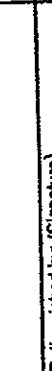
WE WILL USE VIALS WITH LEAST AMOUNT OF AIR BUBBLES
FOR INITIAL ANALYSIS

KEY-URS058 A8

#1175065.00011

Signature of Client
 Jeffrey H. Sanderson VRS

TURNAROUND TIME: Results needed by 1/19/09

Relinquished by: (Signature)		Date	Time	Received by: (Signature)	Date	Time	LABORATORY USE ONLY Discrepancies Between Sample Labels and COC Record? Y or N Explain: Samples were: 1. Shipped <input type="checkbox"/> or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or chilled, Temp. _____ 3. Received in good condition <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tabs was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N
		1-15-09	14:57		1-15-09	14:57	
		1-15-09	15:35		1-15-09	15:35	
							
							

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist KEY-URS 058

Client Name KEY-URS

Date and Time Received: 1/15/2009 3:35:00 PM

Work Order Number 0901466

Received by EM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted 1/16 - YES Date contacted: 1/16/09 Person contacted JEFF HAESHMAN

Contacted by: LEN ARACRI Regarding _____

Comments: HISB-115/GW/30-34 has headspace in both vials (15 and 20 mm);
40-44 also both vials w/headspace (10 mm).

Corrective Action _____

KEY-URS058 A16

H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 2/4/09
SDG #: KEY-URS061**

For Sample(s):

HIMW-20I

HIMW-20S

TB 020409

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A Lab fortified blank was analyzed. All percent recoveries were within or above QC limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 12, 2009

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*

Joann M. Slavin
Senior Vice President

KEY-URS061 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 2/4/09

SDG #: KEY-URS061

For Sample(s):

HIMW-20I

HIMW-20I

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicates good method efficiency.

Sample HIMW-20I was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 12, 2009

*
*
*

Nicole R. Crespi
Quality Assurance Manager

KEY-URS061 A4

30215

EXTERNAL CHAIN OF CUSTODY

H2M LABS, INC.

11747-5076

**575 Broad Hollow Rd, Melville, N.Y. 11791
(631) 694-3040 Fax: (631) 420-8436**

PROJECT NAME/NUMBER	MGIP SITE
Hempstead	NY
KeySpan	NY

SAMPLE FRS: (signature)/Client

189 of

2435 0807

DELIVERABLES:

TURNAROUND TIME: EXPEDITED 1 WEEK

FIELD I.D.

DATE	TIME	MAIN
27/11/2019	9:00	WIN
		HMMW-20S

24/01/250	GW	Himgw-20I
-----------	----	-----------

Ballisauilehad hv: (Sløsetting)

6.04:1000

Relinquished by: (Signature)

3.00

Relinquished by: (Signature)

Relinquished by: (Signature)

0.000

100

KEY-11RS-061 A6 ORIGINAL

YES LOW COPY - CLIENT

PINK COPY - LABORATORY

[illegible]

H2M LABS, INC.

Sample Receipt Checklist · KEY-URS 061

Client Name KEY-URS

Date and Time Received: 2/4/2009 4:10:00 PM

Work Order Number 0902136

Received by EM

Checklist completed by [Signature] Date 2/4/09

Reviewed by SA Date 2/6/09

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: TB not listed on COL.

Corrective Action _____

KEY-URS061 A7

H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 6/24/09
SDG #: KEY-URS063**

For Sample(s):

HISB-116/30-34 HISB-116/80-84
HISB-116/40-44 HISB-116/90-94
HISB-116/50-54 HISB-116/100-104
HISB-116/60-64 20090623-FD-1
HISB-116/70-74 20090623-TB-1

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HISB-116/90-94 was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met. A lab-fortified blank was analyzed and indicate good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 16, 2009

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*

Joann M. Slavin
Senior Vice President

KEY-URS063 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLE RECEIVED: 6/24/09
SDG #: KEY-URS063

For Sample(s):

HISB-116/30-34 HISB-116/80-84
HISB-116/40-44 HISB-116/90-94
HISB-116/50-54 HISB-116/100-104
HISB-116/60-64 20090623-FD-1
HISB-116/70-74

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample HISB-116/90-94 was analyzed as the matrix spike/matrix spike duplicate. All percent recoveries and RPD's were met.

Samples HISB-116/60-64, HISB-116/80-84, HISB-116/90-94, HISB-116/100-104 and 20090623-FD-1 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 9, 2009

*  *

Joann M. Slavin
Senior Vice President

KEY-URS063 A4

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

22335

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid Hempstead MGP PDI #11175065.00011		CLIENT: URS		H2M SDG NO: KEY-URS063	
SAMPLERS: (signature)/Client Jeffrey H. Davidson		Project Contact: Kevin Connare Jeff Harshman		Phone Number: (716) 861-7661 (603) 401-7322 PIS/Quote #	
DELIVERABLES:		NOTES: use extra vol. on H15B-116/90-94 for MS/MSD.			
TURNAROUND TIME:		ANALYSIS REQUESTED		LAB I.D. NO.	
DATE	TIME	MATRIX	FIELD I.D.	ORGANIC	INORG.
6/22/09	1035	H2O	20090623-TB-1	VOA	Metals
6/25/09	1035	GW	H15B-116/100-104	X	
	1100	GW	H15B-116/90-94	X	
	1100	GW	H15B-116/90-94	X	
	1100	GW	H15B-116/90-94	X	
	1130	GW	H15B-116/80-84	X	
	1230	GW	H15B-116/70-74	X	
	1250	GW	H15B-116/60-64	X	
	1250	GW	20090623-FD-1	X	
✓	1315	GW	H15B-116/50-54	X	
Relinquished by: (Signature) Jeffrey H. Davidson		Received by: (Signature) S. J. J.		Date 6/24/09	
Relinquished by: (Signature) S. J. J.		Received by: (Signature) Matt M.		Date 6/24/09	
Relinquished by: (Signature)		Received by: (Signature)		Date 6/24/09	
Relinquished by: (Signature)		Received by: (Signature)		Date 6/24/09	

WHITE COPY - ORIGINAL
KEY-URS063 A6

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N	Explain:
1. Shipped, or Hand Delivered: Airbill	
2. Ambient or chilled, Temp: 4.8° ON 7.2°	
3. Received in good condition: Y or N	
4. Properly preserved: Y or N	
COC Labels were:	
1. Present on outer package: Y or N	
2. Unbroken on outer package: Y or N	
3. COC record present & complete upon sample receipt: Y or N	

H2M LABS, INC.

Sample Receipt Checklist

Client Name KEY-URS

Date and Time Received:

KEY-URS 063
6/24/2009 3:00:00 PM

Work Order Number 0907176

Received by MJMa

Checklist completed by

Mett d/-
Signature

6/24/09
Date

Reviewed by

JA
Initials

6/26/09
Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

KEY-URS063 A8

SUBSURFACE AND SURFACE SOILS

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 9/19/08 & 9/23/08
SDG: KEY-URS029**

For Samples:

ISS-01/22'-24'	ISS-02/32'-34'
ISS-01/44'-46'	ISS-03/18'-20'
ISS-02/20'-22'	ISS-03/32'-34'

Soil samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:


Percent Moisture ASTM D2216

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 6, 2008

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*  *
*

Joann M. Slavin
Senior Vice President

KEY-URS029 A3

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid - Hempstead, NY MGP

#11175065.00011

SAMPLERS: (signature)/Client

Jeffrey K. Harshman URS

DELIVERABLES:

TURNAROUND TIME: *Standard*

[illegible]

PINK COPY - LABORATORY

EXTERNAL CHAIN OF CUSTODY

PINK COPY - LABORATORY

[illegible]

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 10/06/08
SDG #: KEY-URS031**

For Samples:

ISS-04/18-20
ISS-04/32-34

Two soil samples were received by H2M Labs, Inc. for percent moisture analysis.

Samples were prepared and analyzed using the following method:

Percent Moisture ASTM D2216

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 15, 2008

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Vincent Stancampiano
Vice President

KEY-URS031 A3

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PINK COPY - LABORATORY

575 Broad Hollow Rd, Melville, NY 11747-5076 Tel: (631) 694-3040 Fax: (631) 420-8436		CLIENT: URS		H2M SDG NO: KEY-URS031		Project Contact: Kevin Connare Jeff Harshman	
PROJECT NAME/NUMBER Hempstead, NY M6P		Sample Container Description ↑		NOTES:		Phone Number: (716) 856-5636 (603) 401-7322 PIS/Quote #	
DELIVERABLES: TURNAROUND TIME: Standard		ANALYSIS REQUESTED ORGANIC: VOC, BNA, PCB INORG: Metal, CN		LABORATORY USE ONLY Discrepancies Between Sample Labels and COC Record? Y or N Explain:		Samples were: 1. Shipped ___ or Hand Delivered <input checked="" type="checkbox"/> Airbill# _____ 2. Ambient or cooled, Temp _____ 3. Received in good condition: <input checked="" type="checkbox"/> Y or N 4. Properly preserved <input checked="" type="checkbox"/> Y or N COC Tags were: 1. Present on outer package: Y or <input checked="" type="checkbox"/> N 2. Unbroken on outer package: Y or <input checked="" type="checkbox"/> N 3. COC record present & complete upon sample receipt: <input checked="" type="checkbox"/> Y or N	
SAMPLERS: (signature)/Client <i>Jeffrey H. Harshman</i> URS		FIELD I.D. DATE TIME MATRIX 10-4-08 0910 S01L ISS-04/18-20 10-4-08 1000 S01L ISS-04/32-34		Sample No. of Containers 1 1		REMARKS: 0811794-001A ↓ -002A	
Relinquished by: (Signature) <i>Jeffrey H. Harshman</i>		Date 10/6/08		Time 1330		Received by: (Signature) <i>Kevin Connare</i>	
Relinquished by: (Signature) <i>Kevin Connare</i>		Date 10/6/08		Time 230		Received by: (Signature) <i>Jeffrey H. Harshman</i>	
Relinquished by: (Signature) <i>Kevin Connare</i>		Date 10/6/08		Time 1430		Received by: (Signature) <i>Jeffrey H. Harshman</i>	
Relinquished by: (Signature) <i>Kevin Connare</i>		Date 10/6/08		Time 1430		Received by: (Signature) <i>Jeffrey H. Harshman</i>	

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 10/10/08, 10/14/08 & 10/17/08
SDG #: KEY-URS032

For Samples:

AREA E/OAE/S-1
DGP-253/30-35
AREA E/OAE/S2
AREA E/OAE/S-3
AREA E/OAE/S-4
AREA E/OAE/S-5

11/24/09
ff

The above sample^s were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted with these samples. A lab fortified blank was analyzed and indicates good method efficiency.
- Sample AREA E/OAE/S-1 was reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.
- The %D for toluene was 20.9% in the continuing calibration of 10/23/08.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 31, 2008

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*

Joann M. Slavin
Senior Vice President

KEY-URS032 A3

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS032
 Lab File ID: a\A61420.D BFB Injection Date: 10/13/08
 Instrument ID: HP5971 BFB Injection Time: 12:58
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.2
75	30.0 - 60.0% of mass 95	49.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	78.5
175	5.0 - 9.0% of mass 174	5.3 (6.8)1
176	95.0 - 101.0% of mass 174	78.9 (100.6)1
177	5.0 - 9.0% of mass 176	5.1 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AW61422.D	10/13/08	13:57
02	VBLK101308	VBLK101308	AW61423.D	10/13/08	14:33
03	LFB101308	LFB101308	AW61424.D	10/13/08	15:18
04	E/OAE/S-1	0812019-001A	AW61428.D	10/13/08	17:36
05	DGP-253/30-35	0812019-002A	AW61429.D	10/13/08	18:05

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES SAMPLES RECEIVED: 10/10/08, 10/14/08 & 10/17/08 SDG #: KEY-URS032

For Samples:

AREA E/OAE/S-1 AREA E/OAE/S-3
DGP-253/30-35 AREA E/OAE/S-4
AREA E/OAE/S2 AREA E/OAE/S-5

Soil *11/22/08*
The above ~~water~~ samples were analyzed for a specific list of semivolatile organic analytes by EPA method 8270C.

All QC data and calibrations met the requirements of the method and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/ matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

Sample AREA E/OAE/S-1 was initially analyzed at a dilution. An additional was needed. Samples DGP-253/30-35, AREA E/OAE/S-4 and AREA E/OAE/S-5 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Samples DGP-253/30-35 and AREA E/OAE/S-5 had internal standard area counts outside QC limits. All area counts were acceptable in the dilution.

Sample DGP-253/30-35 had high surrogate recoveries. Surrogate recoveries were diluted out in the dilution. Surrogate recoveries were diluted out in the initial dilution of sample AREA E/OAE/S-1 as well as the additional dilution.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 5, 2008

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Joann M. Slavin
Senior Vice President

KEY-URS032 A4

Form 6
8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS

SDG No.: KEY-URS032

Instrument ID: HP5972

Calibration Dates: 10/20/08 10/20/08

Heated Purge: (Y/N) N

Calibration Times: 15:54 18:59

GC Column: R-5SILMS

ID: .25 (mm)

LAB FILE ID:	SSTD005=	C43270.D	SSTD010=	C43271.D	SSTD025=	C43268.D	SSTD040=	C43272.D	SSTD060=	C43273.D
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD
4-Nitroaniline	0	0.3981591	0.3574282	0.4114103	0.4161	0.3987469			0.396	5.8
4,6-Dinitro-2-methylphenol	0	0.1714445	0.1641339	0.1911219	0.2061879	0.1949899			0.186	9.3
N-Nitrosodiphenylamine	0.9483965	0.9870635	0.8803982	0.9426771	0.9052586	0.8193889			0.914	6.5
1,2-Diphenylhydrazine	1.4289737	1.4155122	1.236543	1.2548523	1.3015570	1.1962664			1.306	7.4
4-Bromophenyl-phenylether	0.198	0.204	0.181	0.193	0.195	0.184			0.193	4.4
Hexachlorobenzene	0.2354517	0.2478043	0.2186387	0.2324839	0.2309641	0.2075886			0.229	6.1
Pentachlorophenol	0	0.1542792	0.1445014	0.1602585	0.1541584	0.1426833			0.151	4.9
Phenanthrene	1.4590342	1.5038993	1.2728808	1.3080905	1.2578267	1.1669876			1.328	9.7
Anthracene	1.4648612	1.5163688	1.3295746	1.3515652	1.3059034	1.2111034			1.363	8.1
Carbazole	1.3471191	1.4470903	1.2716459	1.3331723	1.2972277	1.1905774			1.314	6.5
Di-n-butyl phthalate	2.1038886	2.1340195	1.8094976	1.7058186	1.6112240	1.422299			1.798	15.6
Fluoranthene	1.0973677	1.1460386	0.9805476	0.9944578	0.9699148	0.913671			1.017	8.6
Pyrene	2.0185909	2.1075847	1.8076223	1.876554	1.8386770	1.8122714			1.910	6.5
Butyl benzyl phthalate	1.6158212	1.6638965	1.2880518	1.1373888	0.9952603	0.8731721			1.262	25.7
3,3'-Dichlorobenzidine	0.4425612	0.4922517	0.5262148	0.51024	0.4759275	0.3936144			0.473	10.3
Benzof(a)anthracene	1.5269778	1.5154016	1.2895242	1.3137408	1.2849698	1.2540244			1.364	9.0
Chrysene	1.3629010	1.4558693	1.2206474	1.3034549	1.2635001	1.2385026			1.307	6.8
bis(2-Ethylhexyl)phthalate	2.3125653	2.1954178	1.6132451	1.3600751	1.1150992	0.9671965			1.592	34.9
Di-n-octyl phthalate	4.2139690	4.220275	3.2011696	3.1769286	2.8813849	2.612714			3.384	20.1
Benzof(b)fluoranthene	1.5913786	1.6684592	1.4477568	1.8430589	1.8195	1.8721381			1.707	9.8
Benzof(k)fluoranthene	1.5785648	1.6502937	1.1900614	1.0445963	0.8467	0.9288847			1.207	27.9
Benzof(a)pyrene	1.3301166	1.457131	1.1974026	1.3991267	1.357411	1.2932836			1.339	6.7
Indeno(1,2,3-cd)pyrene	1.3371786	1.4915094	1.2330884	1.5334216	1.4416329	1.3770949			1.402	7.8

SW8270C

FORM VI

KEY-URS032 B151

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 10/10/08, 10/14/08 & 10/17/08
SDG: KEY-URS032**

For Samples:

AREA E/OAE/S-1
DGP-253/30-35
AREA E/OAE/S-2
AREA E/OAE/S-3
AREA E/OAE/S-4
AREA E/OAE/S-5

Six soil samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Phenols	EPA SW846 9065
Percent Moisture	ASTM D2216

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 30, 2008

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*

Vincent Stancampiano
Vice President

KEY-URS032 A6

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

23395

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid -

Hempstead, NY M&P

1175065.00011

SAMPLERS: (signature)/Client

Jeffrey W. Handman URS

DELIVERABLES:

TURNAROUND TIME: Standard

DATE	TIME	MATRIX	FIELD I.D.
10-9-08	1430	Soil	D6P-253/30-35
10-9-08	1500	Soil	D6P-253/25-30

CLIENT:

Sample Container Description

BTEX x 82608
PAH x 8270C

Total No. of Containers

ANALYSIS REQUESTED

ORGANIC

VOA

BNA

PCB

INORG.

Metal

CZ

LAB I.D. NO.

0812019-002

REMARKS:

NOTES:

Project Contact:

Phone Number:

PIS/Quote #

H2M SDG NO: 104-MS032

LABORATORY USE ONLY

Samples were:

1. Shipped or Hand Delivered: Airbill#
2. Ambient or chilled, Temp.
3. Received in good condition: Y or N
4. Properly preserved: Y or N

COC Tag was:

1. Present on outer package: Y or N
2. Unbroken on outer package: Y or N
3. COC record present & complete upon sample receipt: Y or N

Date

Time

Received by: (Signature)

Date

Time

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Relinquished by: (Signature)

PINK COPY - LABORATORY

YELLOW COPY - CLIENT

ORIGINAL

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS SAMPLES RECEIVED: 10/14/08 SDG #: KEY-URS033

For Samples:

ISS-01 (5524+5524A)

ISS-02 (5521+5521A)

ISS-03 (5522+5523)

ISS-04 (5525+5525A)

1/23/09 PF
The above sample^s ~~was~~ ^{were} analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted with these samples. A lab fortified blank was analyzed. All percent recoveries were within QC limits except for a 73% recovery for toluene in the medium level LFB.
- Sample ISS-01 (5524+5524A), ISS-02 (5521+5521A) and ISS-03 (5522+5523) were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Sample ISS-04 (5525+5525A) was reanalyzed at a medium level due to concentrations levels of targeted analytes above the calibration range. Both sets of data are submitted. Toluene had a 20.9% D in the continuing calibration of 10/23/08 (limit 20%).

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 31, 2008

*  *
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Joann M. Slavin
Senior Vice President

KEY-URS033 A3

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS033
Sample ID LFB102308 Level: (low/med) MED
Column ID ZB-624 Column Diam .18
Inst. ID HP5971 Init. Calib. Date(s): 08/15/08 10:46
Analysis Date: 10/23/08 16:47 08/15/08 12:44

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Benzene	6250	0	5300	84	71-142
Toluene	6250	0	4600	73*	83-129
Ethylbenzene	6250	0	5000	80	80-129
m,p-Xylene	12500	0	10000	82	79-133
o-Xylene	6250	0	5300	85	79-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 5 outside limits

COMMENTS: _____

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS033
 Lab File ID: A\A61593.D BFB Injection Date: 10/23/08
 Instrument ID: HP5971 BFB Injection Time: 14:41
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	47.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	77.4
175	5.0 - 9.0% of mass 174	5.5 (7.1)1
176	95.0 - 101.0% of mass 174	76.1 (98.3)1
177	5.0 - 9.0% of mass 176	5.0 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AVA61595.D	10/23/08	15:24
02	VLK102308	VLK102308	AVA61596.D	10/23/08	16:09
03	LFB102308	LFB102308	AVA61597.D	10/23/08	16:47
04	ISS-04DL	0812088-004ADL	AVA61603.D	10/23/08	19:43

CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS033Instrument ID: HP5971 Calibration Date: 10/23/2008 Time: 15:24Lab File ID: A\A61595.D Init. Calib. Date(s): 8/26/2008 8/26/2008Heated Purge: (Y/N) N Init. Calib. Times: 12:00 17:23GC Column: ZB-624 ID: .18 (mm)

COMPOUND	CURVE TYPE	RRF	RRF50	MIN RRF	%D	MAX %D	THEO CONC	RCVR CONC	%D ²	MAX %D ²
Benzene	AVRG	1.818	1.6465		-9.4					
Toluene	AVRG	2.089	1.6522		-20.9	20.0				
Ethylbenzene	AVRG	0.682	0.59290		-13.1	20.0				
m,p-Xylene	AVRG	0.829	0.73477		-11.4					
o-Xylene	AVRG	0.843	0.78169		-7.3					
1,2-Dichloroethane-d4	AVRG	2.800	2.7156		-3.0					
Toluene-d8	AVRG	1.678	1.4515		-13.5					
4-Bromofluorobenzene	AVRG	0.765	0.69666		-9.0					

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 10/14/08
SDG #: KEY-URS033

For Samples:

ISS-01 (5524+5524A)
ISS-02 (5521+5521A)
ISS-03 (5522+5523)
ISS-04 (5525+5525A)

The above soil samples were extracted by pressurized fluid extraction, EPA Method 3545. The calibration included a 5 ng/ μ L standard as the lowest level to achieve the reporting limit while using a 15 g sample weight. The extracts were subjected to GPC cleanup and analyzed for a specific list of semivolatile organic analytes by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

- No matrix spike/matrix spike duplicate was submitted. A lab-fortified blank (LFB) was analyzed and indicates good method efficiency; all recoveries were within QC limits.
- The final extract volume after GPC clean-up was 1 mL, due to sample matrix.
- All of the samples were reanalyzed at a dilution due to concentration levels of targeted above the calibration range. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 31, 2008

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Nicole R. Crespi
Quality Assurance Manager

KEY-URS033 A4

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS

SDG No.: KEY-URS033

Instrument ID: HP5972

10/20/08

Heated Purge: (Y/N) N

10/20/08

Calibration Dates:

15:54

18:59

GC Column: R-5SILMS

ID: .25 (mm)

LAB FILE ID: SST005= <u>C43270.D</u> SST010= <u>C43271.D</u> SST025= <u>C43268.D</u> SST040= <u>C43272.D</u> SST060= <u>C43273.D</u>										
SST080= <u>C43274.D</u>										
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD
4-Nitroaniline	0.3981591	0.3574282	0.4114103	0.4161	0.3987469				0.396	5.8
4,6-Dinitro-2-methylphenol	0.1714445	0.1641339	0.1911219	0.2061879	0.1949899				0.186	9.3
N-Nitrosodiphenylamine	0.9483965	0.9870635	0.8803982	0.9426771	0.9052586	0.8193889			0.914	6.5
1,2-Diphenylhydrazine	1.4289737	1.4155122	1.2365543	1.2548523	1.3015570	1.1962664			1.306	7.4
4-Bromophenyl-phenylether	0.198	0.204	0.181	0.193	0.195	0.184			0.193	4.4
Hexachlorobenzene	0.2354517	0.2478043	0.2186387	0.2324839	0.2305641	0.2075886			0.229	6.1
Pentachlorophenol	0	0.1542792	0.1445014	0.1602585	0.1541584	0.1426833			0.151	4.9
Phenanthrene	1.4590342	1.5038993	1.2728808	1.3080905	1.2578267	1.1669876			1.328	9.7
Anthracene	1.4648612	1.5163688	1.3295746	1.3515652	1.3059034	1.2111034			1.363	8.1
Carbazole	1.3471191	1.4470903	1.2716459	1.3331723	1.2972277	1.1905774			1.314	6.5
Di-n-butyl phthalate	2.1038886	2.1340195	1.8094976	1.7058186	1.6112240	1.422299			1.798	15.6
Fluoranthene	1.0973677	1.1460386	0.9805476	0.9944578	0.9699148	0.913671			1.017	8.6
Pyrene	2.0185909	2.1075847	1.8076223	1.876554	1.8386770	1.8122714			1.910	6.5
Butyl benzyl phthalate	1.6158212	1.6638965	1.2880518	1.1373888	0.9952603	0.8731721			1.262	25.7
3,3'-Dichlorobenzidine	0.4425612	0.4922517	0.5262148	0.51024	0.4759275	0.3936144			0.473	10.3
Benzo(a)anthracene	1.5269778	1.5154016	1.2895242	1.3137408	1.2849698	1.2540244			1.364	9.0
Chrysene	1.3629010	1.4558693	1.2206474	1.3034549	1.2635001	1.2385026			1.307	6.8
bis(2-Ethylhexyl)phthalate	2.3125653	2.1854178	1.6132451	1.3600751	1.1150992	0.9671965			1.592	34.9
Di-n-octyl phthalate	4.2139690	4.220275	3.2011696	3.1769286	2.8813849	2.612714			3.384	20.1
Benzo(b)fluoranthene	1.5913786	1.6684592	1.4477568	1.8430589	1.8195	1.8721381			1.707	9.8
Benzo(k)fluoranthene	1.5785648	1.6502937	1.1900614	1.0445963	0.8467	0.9288847			1.207	27.9
Benzo(a)pyrene	1.3301166	1.457131	1.1974026	1.3991267	1.357411	1.2932836			1.339	6.7
Indeno(1,2,3-cd)pyrene	1.3371786	1.4915094	1.2330884	1.5334216	1.4416329	1.3770949			1.402	7.8

FORM VI

SW8270C

KEY-URS033 B131

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Lab File ID: A\C43292.D

DFTPP Injection Date: _____

10/21/08Instrument ID: HP5972

DFTPP Injection Time: _____

13:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	64.8
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	55.7
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	15.9
365	Greater than 1.0% of mass 198	1.5
441	Present, but less than mass 443	4.3
442	40.0 - 110.0% of mass 198	51.7
443	17.0 - 23.0% of mass 442	10.2 (19.7)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC43293.D	10/21/08	13:33
02	MB-28606	MB-28606	AIC43299.D	10/21/08	16:53
03	LFB-28606	LFB-28606	AIC43300.D	10/21/08	17:24
04	ISS-01	0812088-001B	AIC43303.D	10/21/08	18:56
05	ISS-03	0812088-003B	AIC43304.D	10/21/08	19:27
06	ISS-04	0812088-004B	AIC43305.D	10/21/08	19:58
07	ISS-02	0812088-002B	AIC43306.D	10/21/08	20:29

7D

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS033Instrument ID: HP5972Calibration Date: 10/21/08 Time: 13:33Lab File ID: A\C43293.DInit. Calib. Date(s): 10/20/08 10/20/08EPA Sample No. (SSTD050##): SSTD025Init. Calib. Times: 15:54 18:59GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	1.084	1.060		-2.2	
2-Methylnaphthalene	0.652	0.627		-3.8	
Acenaphthylene	1.943	1.835		-5.6	
Acenaphthene	1.206	1.191		-1.3	20.0
Fluorene	1.332	1.276		-4.2	
Phenanthrene	1.328	1.296		-2.4	
Anthracene	1.363	1.302		-4.5	
Fluoranthene	1.017	1.103		8.5	20.0
Pyrene	1.910	1.859		-2.7	
Benzo(a)anthracene	1.364	1.416		3.8	
Chrysene	1.307	1.345		2.9	
Benzo(b)fluoranthene	1.707	1.638		-4.0	
Benzo(k)fluoranthene	1.207	1.244		3.1	
Benzo(a)pyrene	1.339	1.261		-5.8	20.0
Indeno(1,2,3-cd)pyrene	1.402	1.002		-28.5	
Dibenzo(a,h)anthracene	1.201	0.880		-26.7	
Benzo(g,h,i)perylene	1.211	0.751		-38.0	

All other compounds must meet a minimum RRF of 0.010.

FORM VII SV- 1

OLM04.2

KEY-URS033 B158

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 10/14/08
SDG #: KEY-URS033**

For Samples:

ISS-01 (5524+5524A)
ISS-02 (5521+5521A)
ISS-03 (5522+5523)
ISS-01 (5525+5525A)

Four soil samples were received by H2M Labs, Inc. on 10/14/08 for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Oil & Grease (HEM)	EPA 1664A mod.
pH	EPA SW846 9045
Percent Moisture	ASTM D2216

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 28, 2008

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*
*

Vincent Stancampiano
Vice President

KEY-URS033 A5


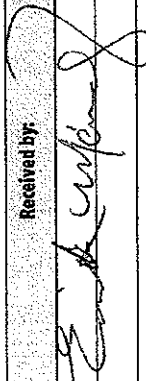
Chain of Custody Record

KEY-URS033

Client Info		Project Info	
URS Corporation 477 Congress Street, Suite 900 Portland, ME 04101 Contact: Thomas R. Plante, P.E. Tel.: 207-879-0395 ext 234		National Grid Hempstead, NY MGP	

No.	ID ^a	Description	Matrix ^b	Date	Time	2 oz. jar BTEX VOCs (EPA 8260B)	4 oz. jar PAH SVOCs (EPA 8270C)	2 oz. jar Oil and Grease (EPA 1664)	pH (EPA 9045D)	Analyses
1	ISS-01 (5524+5524A)	Soil sample 25'-70' bgs	S	10-13-2008	12:00	X	X	X	X	0812088-001A-C
2	ISS-02 (5521+5521A)	Soil sample 10'-35' bgs	S	10-13-2008	12:00	X	X	X	X	-002 A-C
3	ISS-03 (5522+5523)	Soil sample 10'-50' bgs	S	10-13-2008	12:00	X	X	X	X	-003 A-C
4	ISS-04 (5525+5525A)	Soil sample 20'-40' bgs	S	10-13-2008	12:00	X	X	X	X	-004 A-C

a. The first number is the sample location identifier assigned in the field when soil samples were collected. The numbers in parentheses are the sample IDs assigned to the sample containers that were received by Remedius. For example, the first sample from location ISS-01 was a composite sample prepared by combining soil from containers 5524 and 5524A.
 b. S = Solid or L = Liquid

Relinquished by:	Date	Time	Received by:	Date	Time
	10/13/08	12:00		10/14/08	12:00

Samples were:
 Shipped ☒ or Hand Delivered ☒ Airbill ☒
 2. Ambient or Chilled Temp Q.10C
 COC Tape was:
 Present on outer package ☒ Y ☒ N
 Unbroken on outer package: ☒ Y ☒ N
 860 3006 8003

KEY-URS033 A7

H2M LABS, INC.

Sample Receipt Checklist KEY-URS033

Client Name KEY-URS

Date and Time Received: 10/14/2008 10:00:00 AM

Work Order Number 0812088

Received by EM

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name FedEx

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>	<u>DEM 12:14:08</u>
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES

Date contacted: 10/19/08

Person contacted THOMAS PLANTE

Contacted by: JEN ARNOLD

Regarding _____

Comments:

COC has 1200 pm collection time, sample labels have 1000 am.

Corrective Action

GO WITH COC

KEY-URS033 A8

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 10/17/08 & 10/23/08
SDG #: KEY-URS035

For Samples:

DGP-217/20-25
DGP-217/30-35
DGP-211 28'-30'


The above sample ^{5 were} ~~was~~ analyzed for a select list of volatile organic analytes by EPA method 8260B. ^{1/26/09}

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike/matrix spike duplicate was submitted with these samples. A lab fortified blank was analyzed. All percent recoveries were within QC limits except for a 73% recovery for toluene in the medium level LFB.
- Sample DGP-217/30-35 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Sample DGP-217/20-25 was reanalyzed at a medium level due to concentrations levels of targeted analytes above the calibration range. Both sets of data are submitted.
- Toluene had a 20.9% D in the continuing calibration of 10/23/08 (limit 20%).

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 7, 2008

*  *

Joann M. Slavin
Senior Vice President

KEY-URS035 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 10/17/08 & 10/23/08
SDG #: KEY-URS035

For Samples:

DGP-217/20-25
DGP-217/30-35
DGP-211 28'-30'

The above ^{soil} ~~water~~ samples were analyzed for a specific list of semivolatile organic analytes by EPA method 8270C. ^{1/26/09}

All QC data and calibrations met the requirements of the method and no problems were encountered with sample analysis. The following should be noted:

Samples DGP-217/20-25 and DGP-217/30-35 were initially analyzed at a 1:10 dilution. The samples were reanalyzed at an additional dilution due to concentration levels of targeted analytes above the calibration range. The surrogate standards were diluted out in the 1:50 dilution sample. Both sets of data are submitted. Sample DGP-211 28'-30' was analyzed at a 1:10 dilution.

A lab-fortified blank was analyzed and indicates good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 6, 2008

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*



Joann M. Slavin
Senior Vice President

KEY-URS035 A4

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS035

Instrument ID: HP5972

Calibration Dates: 10/20/08 10/20/08

Heated Purge: (Y/N) N

Calibration Times: 15:54 18:59

GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:	SSTD005= C43270.D	SSTD010= C43271.D	SSTD025= C43268.D	SSTD040= C43272.D	SSTD060= C43273.D					
	SSTD080= C43274.D									
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R ²	
4-Nitroaniline	0	0.3981591	0.3574282	0.4114103	0.4161	0.3987469	0.396	5.8		
4,6-Dinitro-2-methylphenol	0	0.1714445	0.1641339	0.1911219	0.2061879	0.1949899	0.186	9.3		
N-Nitrosodiphenylamine	*	0.9483965	0.9870635	0.8803982	0.9426771	0.9052586	0.914	6.5	*	
1,2-Diphenylhydrazine	1.4289737	1.4155122	1.2365543	1.2548523	1.3015570	1.1962664	1.306	7.4		
4-Bromophenyl-phenylether	0.198	0.204	0.181	0.193	0.195	0.184	0.193	4.4		
Hexachlorobenzene	0.2354517	0.2478043	0.2186387	0.2324839	0.2309641	0.2075886	0.229	6.1		
Pentachlorophenol	*	0	0.1542792	0.1445014	0.1602585	0.1541584	0.151	4.9	*	
Phenanthrene	1.4590342	1.5038993	1.2728808	1.3080905	1.2578267	1.1669876	1.328	9.7		
Anthracene	1.4648612	1.5163688	1.3295746	1.3515652	1.3059034	1.2111034	1.363	8.1		
Carbazole	1.3471191	1.4470903	1.2716459	1.3331723	1.2972277	1.1905774	1.314	6.5		
Di-n-butyl phthalate	2.1038886	2.1340195	1.8094976	1.7058186	1.6112240	1.422299	1.798	15.6		
Fluoranthene	*	1.0973677	1.1460386	0.9805476	0.9944578	0.9699148	0.913671	8.6	*	
Pyrene	2.0185909	2.1075847	1.8076223	1.876554	1.8386770	1.8122714	1.910	6.5		
Butyl benzyl phthalate	1.6158212	1.6638965	1.2880518	1.1373888	0.9952603	0.8731721	1.262	25.7		
3,3'-Dichlorobenzidine	0.4425612	0.4922517	0.5262148	0.51024	0.4759275	0.3936144	0.473	10.3		
Benzo(a)anthracene	1.5269778	1.5154016	1.2895242	1.3137408	1.2849698	1.2540244	1.364	9.0		
Chrysene	1.3629010	1.4558693	1.2206474	1.3034549	1.2635001	1.2385026	1.307	6.8		
bis(2-Ethylhexyl)phthalate	2.3125653	2.1854178	1.6132451	1.3600751	1.1150992	0.9671965	1.592	34.9		
Di-n-octyl phthalate	*	4.2139690	4.220275	3.2011696	3.1769286	2.8813849	2.612714	3.384	20.1	*
Benzo(b)fluoranthene	1.5913786	1.6684592	1.4477568	1.8430589	1.8195	1.8721381	1.707	9.8		
Benzo(k)fluoranthene	1.5785648	1.6502937	1.1900614	1.0445963	0.8467	0.9288847	1.207	27.9		
Benzo(a)pyrene	*	1.3301166	1.457131	1.1974026	1.3991267	1.357411	1.339	6.7	*	
Indeno(1,2,3-cd)pyrene	1.3371786	1.4915094	1.2330884	1.5334216	1.4416329	1.3770949	1.402	7.8		

FORM VI

SW8270C

KEY-URS035 B81

PROJECT NAME/NUMBER National Grid
Hempstead MGP PDI
11175065.00011

Jeffrey K. Duckman URS

TURNAROUND TIME: standard

LABORATORY USE ONLY			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	10/17/08	1200	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	10/17/08	1602	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:

- Shipped _____ or Hand Delivered ☒ Airbill# _____
- Amberl or sealed, Temp _____
- Received in good condition: ☒ Y or N
- Properly preserved: ☒ Y or N

COC Taps was:

- Present on outer package: Y or ☒ N
- Unbroken on outer package: Y or ☒ N
- COC record present & complete upon sample receipt: ☒ Y or N

PINK COPY - LABORATORY

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

23398

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid MGP PDI Hempstead, NY # 1175065.00011		CLIENT: URS		H2M SDG NO: Key-URS035	
SAMPLERS: (signature)/Client Megan Daswani/URS		Sample Container Description PAT x 8260B PAT x 8270C		NOTES:	
DELIVERABLES:		ANALYSIS REQUESTED		Project Contact: Kevin Connare Jeff Harshman Phone Number: (716) 861-7661 (603) 401-7322 PIS/Quote #	
TURNAROUND TIME: Standard		ORGANIC VOA Pb PCB		LAB I.D. NO. 0812510-001AB	
DATE 10/24/08 1230		FIELD I.D. D40-211 28'-30'		REMARKS: 2-202, 1-402	
Relinquished by: (Signature) [Signature]		Received by: (Signature) S.W.		Discrepancies Between Sample Labels and COC Record? Y or N	
Relinquished by: (Signature) [Signature]		Received by: (Signature) [Signature]		Explain:	
Relinquished by: (Signature) [Signature]		Received by: (Signature) [Signature]		COC Tape was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N	
Relinquished by: (Signature) [Signature]		Received by: (Signature) [Signature]		COC Tape was: 1. Present on outer package: Y or N 2. Unbroken on outer package: Y or N 3. COC record present & complete upon sample receipt: Y or N	

WHITE URS035 ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS

SAMPLES RECEIVED: 10/28/08 & 11/7/08

SDG #: KEY-URS037

For Samples:

DGP-203/35'-39'

DGP-234/23-25

The above samples were analyzed for a specific list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted with this SDG. A lab fortified blank was analyzed and all percent recoveries were within or above QC limits.
- 3 ug/kg J of methylene chloride was present in the method blank of 11/4/08. This analyte is flagged with a "B" qualifier if present in samples associated with this blank

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 25, 2008

*  *

Joann M. Slavin
Senior Vice President

KEY-URS037 A3

4A

EPA SAMPLE NO.

VOLATILE METHOD BLANK SUMMARY

VBLK110408

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037Lab File ID: A\A61788.DLab Sample ID: VBLK110408Date Analyzed: 11/04/08Time Analyzed: 14:35GC Column: ZB-624 ID: .18 (mm)Heated Purge: (Y/N) YInstrument ID: HP5971

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LFB110408	LFB110408	A\A61789.D	15:03
02	DGP-203/35'-39'	0812649-001A	A\A61799.D	20:01

COMMENTS:

page 1 of 1

FORM IV VOA

OLMC4.2

KEY-URS037 V7

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037
 Lab File ID: A\A61786.D BFB Injection Date: 11/04/08
 Instrument ID: HP5971 BFB Injection Time: 13:34
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.4
75	30.0 - 60.0% of mass 95	49.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.3 (0.4)1
174	Greater than 50.0% of mass 95	75.9
175	5.0 - 9.0% of mass 174	5.2 (6.8)1
176	95.0 - 101.0% of mass 174	73.4 (96.7)1
177	5.0 - 9.0% of mass 176	5.0 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AA61787.D	11/04/08	14:03
02	VLK110408	VLK110408	AA61788.D	11/04/08	14:35
03	LFB110408	LFB110408	AA61789.D	11/04/08	15:03
04	DGP-203/35-39'	0812649-001A	AA61799.D	11/04/08	20:01

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037Instrument ID: HP5971Calibration Date(s): 08/15/08 08/15/08Heated Purge: (Y/N) YCalibration Times: 10:46 12:44GC Column: 2B-624ID: .18 (mm)

LAB FILE ID: VSTD010 = A60585.D VSTD020 = A60586.D
 VSTD050 = A60587.D VSTD100 = A60588.D VSTD200 = A60589.D

COMPOUND	STD01	STD02	STD05	STD10	STD20	RRF	% RSD
1,1,2-Trichloro-1,2,2-trifluoroethane	2.579	2.482	2.290	2.482	2.271	2.421	5.5
1,2,3-Trichlorobenzene	0.193	0.267	0.299	0.349	0.351	0.292	22.5
1,4-Dioxane	0.006	0.006	0.005	0.006	0.006	0.006	5.9
Cyclohexane	1.067	1.043	0.911	0.979	0.924	0.985	7.1
Dichlorodifluoromethane	2.004	2.014	2.008	2.172	1.909	2.021	4.7
Isopropylbenzene	2.191	2.066	1.895	1.924	1.783	1.972	8.1
Methyl Acetate	2.209	2.090	1.998	2.073	1.886	2.051	5.8
Methylcyclohexane	0.841	0.822	0.726	0.795	0.767	0.790	5.8
Trichlorofluoromethane	2.822	2.822	2.557	2.736	2.490	2.686	5.7
Chloromethane	4.103	4.002	4.028	4.017	3.604	3.951	5.0
Vinyl chloride	3.521	3.419	3.364	3.487	3.102	3.379	4.9
Bromomethane	1.381	1.301	1.334	1.323	1.054	1.279	10.1
Chloroethane	2.031	1.967	1.847	1.858	1.645	1.870	7.9
1,1-Dichloroethene	2.252	2.161	2.048	2.127	1.951	2.108	5.4
1,2-Dichloroethene (total)	2.803	2.698	2.575	2.611	2.454	2.628	5.0
Acetone	1.357	0.749	0.891	0.946	0.667	0.922	29.0
Carbon disulfide	10.426	10.092	9.542	9.871	9.011	9.788	5.5
Methylene chloride	4.018	3.311	2.757	2.677	2.396	3.032	21.2
trans-1,2-Dichloroethene	2.660	2.571	2.458	2.485	2.314	2.498	5.2
Methyl tert-butyl ether	6.882	6.664	6.287	6.449	5.864	6.429	6.0
1,1-Dichloroethane	6.176	5.870	5.592	5.567	5.129	5.667	6.9
cis-1,2-Dichloroethene	2.918	2.801	2.684	2.704	2.557	2.733	4.9
2-Butanone	1.763	1.305	1.357	1.497	1.258	1.436	14.2
1,2-Dichlorobenzene	0.900	0.857	0.789	0.816	0.772	0.827	6.3
Chloroform	4.655	4.572	4.233	4.289	3.981	4.346	6.3
1,1,1-Trichloroethane	0.558	0.542	0.503	0.525	0.502	0.526	4.6
1,3-Dichlorobenzene	0.962	0.910	0.868	0.887	0.841	0.893	5.1
1,4-Dichlorobenzene	0.987	0.916	0.867	0.889	0.834	0.899	6.4
Carbon tetrachloride	0.483	0.474	0.438	0.462	0.442	0.460	4.3
Benzene	1.956	1.870	1.757	1.759	1.698	1.808	5.7
1,2-Dichloroethane	3.384	3.246	3.045	3.008	2.718	3.080	8.2
Trichloroethene	0.502	0.465	0.470	0.482	0.464	0.476	3.3
1,2-Dichloropropane	0.603	0.567	0.527	0.528	0.512	0.547	6.8
Bromodichloromethane	0.563	0.552	0.522	0.537	0.517	0.538	3.6
cis-1,3-Dichloropropene	0.761	0.730	0.702	0.714	0.695	0.720	3.6
4-Methyl-2-pentanone	0.590	0.518	0.486	0.501	0.457	0.510	9.7

FORM VI VOA - 1

OLM04.2

KEY-URS037 V44

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037Instrument ID: HP5971Calibration Date: 11/04/08Time: 14:03Lab File ID: A\A61787.DInit. Calib. Date(s): 08/15/08 09/15/08EPA Sample No. (VSTD050##): VSTD050Init. Calib. Times: 10:46 12:44Heated Purge: (Y/N) YGC Column: 2B-624ID: .18 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Chloromethane	3.951	3.866	0.100	-2.1	
Vinyl chloride	3.379	3.608		6.8	20.0
Bromomethane	1.279	1.863		45.7	
Chloroethane	1.870	2.081		11.3	
1,1-Dichloroethene	2.108	1.813		-14.0	20.0
1,2-Dichloroethene (total)	2.628	2.422		-7.8	
Acetone	0.922	1.522		65.1	
Carbon disulfide	9.788	7.953		-18.8	
Methylene chloride	3.032	2.541		-16.2	
Methyl tert-butyl ether	6.429	5.989		-6.8	
1,1-Dichloroethane	5.667	5.224	0.100	-7.8	
2-Butanone	1.436	1.992		38.7	
Chloroform	4.346	4.159		-4.3	20.0
1,1,1-Trichloroethane	0.526	0.518		-1.5	
Carbon tetrachloride	0.460	0.466		1.3	
Benzene	1.808	1.708		-5.5	
1,2-Dichloroethane	3.080	3.117		1.2	
Trichloroethene	0.476	0.466		-2.2	
1,2-Dichloropropane	0.547	0.536		-2.1	20.0
Bromodichloromethane	0.538	0.543		0.9	
cis-1,3-Dichloropropene	0.720	0.745		3.4	
4-Methyl-2-pentanone	0.510	0.519		1.7	
Toluene	1.777	1.688		-5.0	20.0
trans-1,3-Dichloropropene	0.583	0.621		6.6	
1,1,2-Trichloroethane	0.310	0.316		2.0	
Tetrachloroethene	0.355	0.337		-5.1	
2-Hexanone	0.370	0.488		31.7	
Dibromochloromethane	0.404	0.422		4.4	
Chlorobenzene	1.188	1.187	0.300	-0.1	
Ethylbenzene	0.625	0.609		-2.6	20.0
Xylene (total)	0.777	0.762		-1.9	
Styrene	1.181	1.190		0.8	
Bromoform	0.220	0.239	0.100	8.6	
1,1,2,2-Tetrachloroethane	0.462	0.495	0.300	7.1	

All other compounds must meet a minimum RRF of 0.010.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK110408

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS SAS No.: _____SDG No.: KEY-URS037

Matrix: (soil/water)

SOILLab Sample ID: VBLK110408Sample wt/vol: 5(g/mL) GLab File ID: A\A61788.D

Level: (low/med)

LOW

Date Received:

% Moisture: not dec.

Date Analyzed: 11/04/08GC Column: ZB-624ID: .18 (mm)Dilution Factor: 1.00

Soil Extract Volume:

(µL)

Soil Aliquot Volume

(µL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(µg/L or µg/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
75-35-4	1,1-Dichloroethene	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-64-1	Acetone	5	U
75-15-0	Carbon disulfide	5	U
75-09-2	Methylene chloride	3	J
1634-04-4	Methyl tert-butyl ether	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	5	U
107-06-2	1,2-Dichloroethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
127-18-4	Tetrachloroethene	5	U
591-78-6	2-Hexanone	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES SAMPLES RECEIVED: 10/28/08 & 11/7/08 SDG #: KEY-URS037

For Samples:

DGP-203/35'-39'

DGP-234/23-25

The above soil samples were extracted by pressurized fluid extraction, EPA Method 3545. The calibration included a 5 ng/ μ L standard as the lowest level to achieve the reporting limit while using a 15 g sample weight. The extracts were subjected to GPC cleanup and analyzed for a specific list of semivolatile organic analytes by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

- No MS/MSD sample spikes were requested. Two lab-fortified blanks (LFB) were analyzed. All recoveries were within QC limits with the exception of 2,4-Dimethylphenol in the LFB extracted on 10/31/08, which recovered below limits. The analyte was not found in the samples, and no data are affected.
- Sample DGP-234/23-25 was originally analyzed at a dilution of 1:10, but still exceeded the calibration range. The extract was reanalyzed at a dilution of 1:100. Both sets of data are reported. No surrogate recovery is reportable for the dilution 1:100 because the surrogates are diluted out.
- Low level TICs, Bis(2-Ethylhexyl)phthalate and di-n-butyl phthalate were detected in the method blank extracted on 10/31/08. These analytes are flagged with a "B" qualifier if present in samples associated with these blanks.
- TICs identified as alkanes are listed on the TIC form 1G however are not counted in the number of TICs reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 24, 2008

*
* *Nicole R. Crespi* *
*

Nicole R. Crespi
Quality Assurance Manager

KEY-URS037 A4

SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-UR

SAS No.: _____

SDG No.: KEY-URS037

Sample ID LFB-28835

Level: (low/med) LOW

Column ID R-5SILMS

Column Diam .25

Inst. ID HP5972

Init. Calib. Date(s): 10/20/08 15:54

Analysis Date: 11/04/08 11:09

10/20/08 18:59

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Phenol	1700	0	920	55	25-131
Bis(2-chloroethyl)ether	1700	0	770	46	39-111
2-Chlorophenol	1700	0	960	58	48-116
1,3-Dichlorobenzene	1700	0	1100	63	39-111
1,4-Dichlorobenzene	1700	0	1000	61	25-123
1,2-Dichlorobenzene	1700	0	1000	63	28-116
2-Methylphenol	1700	0	840	51	41-131
2,2'-oxybis(1-Chloropropane)	1700	0	790	47	28-146
4-Methylphenol	1700	0	900	54	37-137
N-Nitroso-di-n-propylamine	1700	0	990	60	40-124
Hexachloroethane	1700	0	850	51	48-126
Nitrobenzene	1700	0	1000	62	48-126
Isophorone	1700	0	820	49	33-131
2-Nitrophenol	1700	0	1100	66	39-135
2,4-Dimethylphenol	1700	0	490	29*	39-135
bis(2-Chloroethoxy)methane	1700	0	1000	61	20-148
2,4-Dichlorophenol	1700	0	1200	73	46-130
1,2,4-Trichlorobenzene	1700	0	1200	70	25-129
Naphthalene	1700	0	1100	68	43-109
4-Chloroaniline	1700	0	880	53	25-133
Hexachlorobutadiene	1700	0	1400	86	11-135
4-Chloro-3-methylphenol	1700	0	990	60	45-135
2-Methylnaphthalene	1700	0	1200	73	13-151
Hexachlorocyclopentadiene	1700	0	450	27	13-119
2,4,6-Trichlorophenol	1700	0	1100	69	53-131
2,4,5-Trichlorophenol	1700	0	1100	65	48-132
2-Chloronaphthalene	1700	0	1000	60	47-123
2-Nitroaniline	1700	0	900	54	41-131
Dimethylphthalate	1700	0	1200	71	10-162
Acenaphthylene	1700	0	1100	67	36-132

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 1 out of 64 outside limits

COMMENTS: _____

4B

EPA SAMPLE NO.

SEMIVOLATILE METHOD BLANK SUMMARY

MB-28835

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037Lab File ID: A\C43432.DLab Sample ID: MB-28835Instrument ID: HP5972Date Extracted: 10/31/08Matrix: (soil/water) SOILDate Analyzed: 11/04/08Level: (low/med) LOWTime Analyzed: 10:38

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS, AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
1	LFB-28835	LFB-28835	A\C43433.D	11/4/08
2	203/35'-39'	0812649-001B	A\C43434.D	11/4/08

COMMENTS: _____

page 1 of 1

FORM IV SV

OLM04.2

KEY-URS037 B8

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037
Lab File ID: A\C43429.D DFTPP Injection Date: 11/04/08
Instrument ID: HP5972 DFTPP Injection Time: 9:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	62.1
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	48.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	16.1
365	Greater than 1.0% of mass 198	1.6
441	Present, but less than mass 443	4.3
442	40.0 - 110.0% of mass 198	55.2
443	17.0 - 23.0% of mass 442	10.8 (19.6)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	AIC43431.D	11/04/08	10:03
02	MB-28835	MB-28835	AIC43432.D	11/04/08	10:38
03	LFB-28835	LFB-28835	AIC43433.D	11/04/08	11:09
04	203/35'-39'	0812649-001B	AIC43434.D	11/04/08	11:39

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478Case No.: KEY-URSSAS No.: SDG No.: KEY-URS037Instrument ID: HP5972Calibration Dates: 10/20/0810/20/08Heated Purge: (Y/N) NCalibration Times: 15:5418:59GC Column: R-5SILMSID: .25 (mm)LAB FILE ID: SST005= C43270.D SST010= C43271.D SST025= C43268.D SST040= C43272.D SST060= C43273.D
SST080= C43274.D

COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R ²
4-Nitroaniline	0.3981591	0.3574282	0.4114103	0.4161	0.3987469		0.396	5.8	
2,5-Dinitro-2-methylphenol	0.1714445	0.1641339	0.1911219	0.2061879	0.1949899		0.186	9.3	
N-Nitrosodiphenylamine	0.9483965	0.9870635	0.8803982	0.9426771	0.9052586	0.8193899	0.914	6.5	*
1,2-Diphenylhydrazine	1.4289737	1.4155122	1.236543	1.2548523	1.3015570	1.1962664	1.306	7.4	
4-Ethoxyphenyl-phenylether	0.198	0.204	0.193	0.195	0.184		0.193	4.4	
Hexachlorobenzene	0.2354517	0.2478043	0.2186387	0.2324839	0.2309641	0.2075886	0.229	6.1	
Pentachlorophenol	0	0.1542792	0.1445014	0.1602585	0.1541584	0.1426833	0.151	4.9	*
Phenanthrene	1.4590342	1.5038993	1.2728808	1.3080905	1.2578267	1.1669876	1.328	9.7	
Anthracene	1.4648612	1.5163688	1.3295746	1.3515652	1.3059034	1.2111034	1.363	8.1	
Carbazole	1.3471191	1.4470903	1.2716459	1.3331723	1.2972277	1.1905774	1.314	6.5	
Di-n-butyl phthalate	2.1038886	2.1340195	1.8094976	1.7058186	1.6112240	1.422299	1.798	15.6	
Fluoranthene	1.0973677	1.1480386	0.9805476	0.9944578	0.9699148	0.913671	1.017	8.6	*
Pyrene	2.0185903	2.1075847	1.8076223	1.876554	1.8366770	1.8122714	1.910	6.5	
Butyl benzyl phthalate	1.6158212	1.6638965	1.2880518	1.1373888	0.9952603	0.8731721	1.262	25.7	
3,3'-Dichlorobenzidine	0.4425612	0.4922517	0.5262148	0.51024	0.4759275	0.3936144	0.473	10.3	
Benzo(a)anthracene	1.5269778	1.5154016	1.2895242	1.3137408	1.2849698	1.2540244	1.364	9.0	
Chrysene	1.3629010	1.4558693	1.2206474	1.3034549	1.2635001	1.2385026	1.307	6.8	
bis(2-Ethylhexyl)phthalate	2.3125653	2.1854178	1.6132451	1.3600751	1.1150992	0.9671965	1.592	34.9	
Di-n-octyl phthalate	4.2139690	4.220275	3.2011696	3.1769286	2.8813849	2.612714	3.384	20.1	*
Benzo(b)fluoranthene	1.5913786	1.6684592	1.4477568	1.8430589	1.8195	1.8721381	1.707	9.8	
Benzo(k)fluoranthene	1.5785648	1.6502937	1.900614	1.0445963	0.8467	0.9288847	1.207	27.9	
Benzo(a)pyrene	1.3301166	1.457131	1.1974026	1.3991267	1.357411	1.2932836	1.339	6.7	*
Indeno(1,2,3-cd)pyrene	1.3371786	1.4915094	1.2330884	1.5334216	1.4416329	1.3770949	1.402	7.8	

FORM VI

SW8270C

KEY-URS037 B76

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037Instrument ID: HP5972Calibration Date: 11/4/08Time: 10:03Lab File ID: A\C43431.DInit. Calib. Date(s): 10/20/08 10/20/08EPA Sample No. (SSTD050##): SSTD025Init. Calib. Times: 15:54 18:59GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Phenol	2.388	2.020		-15.4	20.0
Bis(2-chloroethyl)ether	2.332	1.685		-27.8	
2-Chlorophenol	1.606	1.358		-15.4	
1,3-Dichlorobenzene	1.500	1.358		-9.5	
1,4-Dichlorobenzene	1.678	1.523		-9.3	20.0
1,2-Dichlorobenzene	1.435	1.341		-6.6	
2-Methylphenol	1.601	1.236		-22.8	
2,2'-oxybis(1-Chloropropane)	2.434	1.602		-34.2	
4-Methylphenol	1.541	1.311		-14.9	
N-Nitroso-di-n-propylamine	0.895	0.737	0.050	-17.7	
Hexachloroethane	0.763	0.603		-20.9	
Nitrobenzene	0.433	0.363		-16.1	
Isophorone	0.953	0.709		-25.6	
2-Nitrophenol	0.254	0.234		-7.8	20.0
2,4-Dimethylphenol	0.455	0.377		-17.2	
bis(2-Chloroethoxy)methane	0.622	0.485		-22.0	
2,4-Dichlorophenol	0.343	0.357		4.0	20.0
1,2,4-Trichlorobenzene	0.339	0.336		-0.8	
Naphthalene	1.084	0.991		-8.5	
4-Chloroaniline	0.487	0.459		-5.7	
Hexachlorobutadiene	0.119	0.141		18.1	20.0
4-Chloro-3-methylphenol	0.370	0.305		-17.7	20.0
2-Methylnaphthalene	0.652	0.610		-6.4	
Hexachlorocyclopentadiene	0.234	0.196	0.050	-16.2	
2,4,6-Trichlorophenol	0.354	0.334		-5.7	20.0
2,4,5-Trichlorophenol	0.381	0.352		-7.7	
2-Chloronaphthalene	1.440	1.369		-4.9	
2-Nitroaniline	0.441	0.293		-33.6	
Dimethylphthalate	1.584	1.377		-13.0	
Acenaphthylene	1.943	1.787		-8.0	
2,6-Dinitrotoluene	0.391	0.368		-5.8	
3-Nitroaniline	0.422	0.332		-21.3	
Acenaphthene	1.206	1.135		-5.9	20.0
2,4-Dinitrophenol	0.209	0.149	0.050	-28.8	
4-Nitrophenol	0.253	0.137	0.050	-45.8	
Dibenzofuran	1.668	1.568		-6.0	
2,4-Dinitrotoluene	0.480	0.460		-4.2	
Diethylphthalate	1.426	1.282		-10.1	

All other compounds must meet a minimum RRF of 0.010.

7D
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Instrument ID: HP5972

Calibration Date: 11/4/08

Time: 10:03

Lab File ID: A\C43431.D

Init. Calib. Date(s): 10/20/08 10/20/08

EPA Sample No. (SSTD050##): SSTD025

Init. Calib. Times: 15:54 18:59

GC Column: R-5SILMS

ID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
4-Chlorophenyl-phenylether	0.458	0.447		-2.4	
Fluorene	1.332	1.289		-3.2	
4-Nitroaniline	0.396	0.324		-18.2	
4,6-Dinitro-2-methylphenol	0.186	0.167		-10.0	
N-Nitrosodiphenylamine	0.914	0.896		-2.0	20.0
4-Bromophenyl-phenylether	0.193	0.191		-1.0	
Hexachlorobenzene	0.229	0.224		-2.1	
Pentachlorophenol	0.151	0.126		-16.7	20.0
Phenanthrene	1.328	1.284		-3.3	
Anthracene	1.363	1.281		-6.0	
Carbazole	1.314	1.310		-0.3	
Di-n-butyl phthalate	1.798	1.733		-3.6	
Fluoranthene	1.017	1.021		0.4	20.0
Pyrene	1.910	1.875		-1.8	
Butyl benzyl phthalate	1.262	1.237		-2.0	
3,3'-Dichlorobenzidine	0.473	0.472		-0.3	
Benzo(a)anthracene	1.364	1.478		8.3	
Chrysene	1.307	1.347		3.0	
bis(2-Ethylhexyl)phthalate	1.592	2.602		63.4	
Di-n-octyl phthalate	3.384	3.051		-9.9	20.0
Benzo(b)fluoranthene	1.707	1.401		-17.9	
Benzo(k)fluoranthene	1.207	1.219		1.0	
Benzo(a)pyrene	1.339	1.245		-7.0	20.0
Indeno(1,2,3-cd)pyrene	1.402	1.333		-4.9	
Dibenzo(a,h)anthracene	1.201	1.107		-7.8	
Benzo(g,h,i)perylene	1.211	1.146		-5.4	

All other compounds must meet a minimum RRF of 0.010.

FORM VII SV- 2

OLM04.2

KEY-URS037 B103

1D
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MB-28835

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS037

Matrix: (soil/water) SOIL

Lab Sample ID: MB-28835

Sample wt/vol: 15 (g/mL) G

Lab File ID: A\C43432.D

Level: (low/med) LOW

Date Received: _____

% Moisture: Decanted: (Y/N) N

Date Extracted: 10/31/08

Concentrated Extract Volume: 500 (μL)

Date Analyzed: 11/04/08

Injection Volume: 2 (μL)

Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: _____

Extraction: (Type) PFEX

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(μg/L or μg/Kg) <u>UG/KG</u>	<u>Q</u>
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butyl phthalate	150	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butyl benzyl phthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	810	
117-84-0	Di-n-octyl phthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenzo(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) Cannot be separated from Diphenylamine

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MB-28835

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS037
Matrix: (soil/water) SOIL Lab Sample ID: MB-28835
Sample wt/vol: 15 (g/mL) G Lab File ID: AIC43432.D
Level: (low/med) LOW Date Received: _____
% Moisture: _____ Decanted: (Y/N) N Date Extracted: 10/31/08
Concentrated Extract Volume: 500 (μl) Date Analyzed: 11/04/08
Injection Volume: 2 (μl) Dilution Factor: 1.00
GPC Cleanup: (Y/N) Y pH: _____ Extraction: (Type) PFEX

CONCENTRATION UNITS:

Number TICs found: 4 (μg/L or μg/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	Q
1.	substituted alcohol (3.94)	3.94	160	J
2.	substituted alcohol (3.98)	3.98	170	J
3.	substituted alcohol (4.02)	4.02	240	J
4.	substituted alcohol (4.18)	4.18	400	J

H2M LABS, INC.

SEMI-VOLATILES SAMPLE PREPARATION

EXTRACTION DATE: 10/31/08

SDG# KEY-URS037

DELIV. CODE: R4-70

TEST CODE: 8270 S.TCL

MATRIX: WATER

SOIL ☒

SLUDGE

OTHER (SPECIFY)

EXTR. METHOD: SEPF CONT TUMB SONC SOXH PFEX ☒ BLEND DIL SOLID PHASE

SAMPLES				Comments/ Sample Description	pH Calibration:							
Lab Id #	Customer#	Int'l Vol/Wt	pH		READING OF 4.0 BUFFER (3.9-4.1)	READING OF 10.0 BUFFER (9.9-10.1)	Vol/Wt	GPC COL	Spike Sol#	Lot	Vol uL	Verif. By
10812510-001	Key-URS	15.0 gm	7									
20812649-001	1	15.0 gm	7									
30812704-001	1	15.0 gm	7									
40812659-001	PCV00	15.0 gm	7									
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

EXTR. OR DIL.	Start	End	Date	Time	Final Vol	Analyst	Comments
CONC. 1			10/31/08		5.60 mL	GD	
CONC. 2			10/31/08		10 mL	GD	

C	L	E	A	N	GC	H2SO4	SULFUR	FLORISIL	OTHER	Int'l Vol.	Final Vol.	Analyst	Comments
										5 mL	0.5 mL	GD	

REAGENTS				
	Lot #	Lot #	Lot #	Prep Date
CH2Cl2	48023	FLORISIL		
HEXANE		Na2SO4		
ACETONE	48071	NaCl		

a) Run MSB for AC, AS 8270/PP8080 with MS sol.
b) Run LFB for all codes with QC sol except AC
c) Spike samples for AC and any 8270/PP8080 w/ MS sol., all others with QC sol

Supervisor Signature: [Signature] Date: 10/31/08

H2M LABS, INC.

**SDG NARRATIVE FOR WET CHEMISTRY
SAMPLES RECEIVED: 10/28/08 & 11/07/08
SDG: KEY-URS037**

For Samples:

DGP-203/35'-39'
DGP-234/23-25
DGP-234/38-39

Three soil samples were received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Cyanide	EPA SW846 9010/9014
Percent Moisture	ASTM D2216

Samples utilized for QC analysis were listed on the QC summary report.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: November 24, 2008

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*
*

Vincent Stancampiano
Vice President

KEY-URS037 A5

PINK COPY - LABORATORY

[illegible]

H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 11/13/08
SDG #: KEY-URS043**

For Samples:

DGP-206/25-28
DGP-208/28.5-30
DGP-261/33-35
DGP-262/32.5-35
DGP-263/30-35

The above samples were analyzed for a specific list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

- No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.
- All samples except DGP-208/28.5-30 were reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted. Sample DGP-208/28.5-30 was initially analyzed at a 1:5 dilution due to high concentration levels of targeted analytes.
- The low-level analyses of sample DGP-261/33-35 had a high surrogate recovery. All surrogate recoveries were acceptable in the medium level analyses.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 2, 2008

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Joann M. Slavin
Senior Vice President

KEY-URS043 A3

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS043Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VELK111708	88	87	83		0
02	LFB111708	84	84	87		0
03	DGP206/25-28	87	85	77		0
04	DGP208/28.5-30	76	94	77		0
05	DGP261/33-35	75	92	172 *		1
06	DGP262/32.5-35	74	93	83		0
07	DGP263/30-35	74	96	83		0

QC Limit

SMC1 DCA = 1,2-Dichloroethane-d4 (33-150)
 SMC2 TOL = Toluene-d8 (43-157)
 SMC3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS043
 Lab File ID: A\A62095.D BFB Injection Date: 11/17/08
 Instrument ID: HP5971 BFB Injection Time: 9:11
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.6
75	30.0 - 60.0% of mass 95	49.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.1 (0.2)1
174	Greater than 50.0% of mass 95	74.9
175	5.0 - 9.0% of mass 174	5.4 (7.2)1
176	95.0 - 101.0% of mass 174	73.3 (97.9)1
177	5.0 - 9.0% of mass 176	4.9 (6.7)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AVA62096.D	11/17/08	9:43
02	VLK111708	VLK111708	AVA62097.D	11/17/08	10:32
03	LFB111708	LFB111708	AVA62098.D	11/17/08	11:05
04	DGP206/25-28	0813254-001A	AVA62109.D	11/17/08	16:35
05	DGP208/28.5-30	0813254-002A	AVA62110.D	11/17/08	17:05
06	DGP261/33-35	0813254-003A	AVA62111.D	11/17/08	17:35
07	DGP262/32.5-35	0813254-004A	AVA62113.D	11/17/08	18:36
08	DGP263/30-35	0813254-005A	AVA62114.D	11/17/08	19:06

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ANALYSES
SAMPLES RECEIVED: 11/13/08
SDG #: KEY-URS043

For Samples:

DGP-206/25-28 DGP-262/32.5-35
DGP-208/28.5-30 DGP-263/30-35
DGP-261/33-35

The above samples were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below. The following should be noted:

No matrix spike/ matrix spike duplicate was requested. Lab-fortified blanks (LFB) were analyzed and indicate good method efficiency.

All samples were reanalyzed at a dilution. The undiluted samples DGP-206/25-28 and DGP-261/33-35 had a high surrogate recovery. All surrogate recoveries were diluted out in the dilution. The undiluted sample DGP-206/25-28, DGP-261/33-35 and DGP-208/28.5-30 had low internal standard area counts in the undiluted analysis. All area counts were acceptable in the dilution.

Samples DGP-206/25-28, DGP-208/28.5-30 and DGP-261/33-35 were concentrated to a final volume of 1ml after GPC.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 3, 2008

*  *

Joann M. Slavin
Senior Vice President

KEY-URS043 A4

8B
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS. INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS043
 EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 11/25/08
 Lab File ID (Standard): 8\N28302.D Time Analyzed: 18:36
 Instrument ID: HP5973N GC Column: R-5SILMS ID: .25 (mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	575052	4.56	2114042	6.14	1262668	9.20
UPPER LIMIT	1150104	5.06	4228084	6.64	2525336	9.70
LOWER LIMIT	287526	4.06	1057021	5.64	631334	8.70
EPA SAMPLE NO.						
01 MB-29155	452301	4.56	1665859	6.12	975296	9.19
02 LFB-29155	537396	4.56	1989789	6.13	1140477	9.19
03 DGP262/32.5-35	436759	4.56	1323733	6.16	873166	9.22
04 DGP263/30-35	469561	4.57	1266924	6.17	935616	9.23
05 DGP206/25-28	493129	4.57	906186*	6.25	745050	9.35
06 DGP208/28.5-30	390335	4.56	1297135	6.14	707310	9.26
07 DGP261/33-35	140901*	4.59	531913*	6.35	578650*	9.45

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS043 B9

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____

Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS043

EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 11/25/08

Lab File ID (Standard): 8VN28302.D Time Analyzed: 18:36

Instrument ID: HP5973N GC Column: R-5SILMS ID: 25 (mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD	1945787	12.08	1571782	15.09	1742376	16.20
UPPER LIMIT	3891574	12.58	3143564	15.59	3484752	16.70
LOWER LIMIT	972894	11.58	785891	14.59	871188	15.70
EPA SAMPLE NO.						
01 MB-29155	1503886	12.07	1379312	15.09	1300918	16.20
02 LFB-29155	1788004	12.07	1487121	15.09	1565260	16.19
03 DGP262/32.5-35	1214205	12.10	982274	15.12	1049371	16.21
04 DGP263/30-35	1293276	12.11	1008856	15.13	912005	16.21
05 DGP206/25-28	833308*	12.23	815123*	15.21	267287*	16.25
06 DGP208/28.5-30	819965*	12.16	504935*	15.16	275871*	16.23
07 DGP261/33-35	357839*	12.33	233961*	15.41	191521*	16.25

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS043 B10

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS043Instrument ID: HP5973NCalibration Dates: 11/11/2008 11/11/2008Heated Purge: (Y/N) NCalibration Times: 17:55 20:36GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SST0005= 08\N28126.D SST0010= 08\N28125.D SST0025= 08\N28121.D SST0040= 08\N28124.D SST0060= 08\N28123.D																		
SST0080= 08\N28122.D																		
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6										RRF	% RSD	R ²
Phenanthrene	1.4160434	1.4060933	1.2193473	1.2287656	1.1862822	1.1184928										1.263	9.6	
Anthracene	1.3927451	1.3951386	1.1929833	1.1819035	1.1126358	1.032327										1.218	12.1	
Carbazole	1.2294567	1.2704913	1.1162158	1.1344248	1.1070168	1.0369597										1.149	7.5	
Di-n-butyl phthalate	1.4952433	1.5307019	1.3195377	1.3314042	1.2850758	1.2142841										1.363	9.1	
Fluoranthene	* 1.4445983	1.4316578	1.2224526	1.2087897	1.1669863	1.0930126										1.261	11.4	*
Pyrene	1.751112	1.7979679	1.5717126	1.6405910	1.6770525	1.7086473										1.691	4.8	
Butyl benzyl phthalate	0.7459362	0.7741303	0.6868249	0.7162336	0.7156187	0.707715										0.724	4.3	
3,3'-Dichlorobenzidine	0.5572373	0.5559372	0.5051741	0.5019063	0.5122202	0.5051790										0.523	5.0	
Benzo(a)anthracene	1.6354929	1.6065223	1.4117402	1.5035600	1.5313099	1.5418714										1.538	5.2	
Chrysene	1.4931832	1.4607080	1.2370555	1.2927006	1.3571251	1.3933579										1.372	7.1	
Bis(2-ethylhexyl)phthalate	0.9942907	1.0097221	0.8548521	0.8906077	0.8806854	0.8842674										0.919	7.1	
Di-n-octyl phthalate	* 1.8942648	1.9397882	1.4879838	1.6103082	1.3953846	1.3104456										1.606	16.2	*
Benzo(b)fluoranthene	1.8734995	1.7429569	1.4156256	1.6773929	1.6817925	1.608154										1.667	9.1	
Benzo(k)fluoranthene	1.5784661	1.6644987	1.1327357	1.0817671	1.0722437	0.9656905										1.249	23.6	
Benzo(a)pyrene	* 1.5439806	1.5979491	1.2432006	1.3797548	1.2750544	1.219252										1.377	11.7	*
Indeno(1,2,3-cd)pyrene	1.6670336	1.7121809	1.4246146	1.5390786	1.4803228	1.448949										1.545	7.7	
Dibenzo(a,h)anthracene	1.3912048	1.4240186	1.1688827	1.2527097	1.1946974	1.1758256										1.268	8.9	
Benzo(g,h,i)perylene	1.4369778	1.5017228	1.2861414	1.3737828	1.3206550	1.3060001										1.371	6.1	
2-Fluorophenol	1.3138295	1.2888243	1.3035994	1.2820009	1.2851574	1.2619381										1.289	1.4	
Nitrobenzene-d5	0.3918257	0.3725886	0.355142	0.3303855	0.334721	0.3276753										0.352	7.4	
Phenol-d5	1.580398	1.527986	1.5346454	1.4566298	1.4272527	1.3756902										1.484	5.2	
2,4,6-Tribromophenol	0.2375074	0.2284515	0.2232574	0.2165582	0.2177592	0.2072049										0.222	4.7	
2-Fluorobiphenyl	1.5966075	1.4969206	1.3811335	1.3254421	1.3169720	1.2607025										1.396	9.1	

FORM VI

SW8270C

KEY-URS043 B128

EXTERNAL CHAIN OF CUSTODY

11000:59052111#

Adelphi H. Lawrence vrs

TURNAROUND TIME: Standard

LABORATORY USE ONLY			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	11/13/08	15:08	<i>S.W. J.</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>S.W. J.</i>	11-13-08	16:05	<i>[Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:

1. Shipped ☒ or Hand Delivered ☒ Airbill# _____

2. Ambient or chilled, Temp. _____

3. Received in good condition: ☒ or N

4. Properly preserved: ☒ or N

COC Issues were:

1. Present on outer package: Y or ☒ N

2. Unbroken on outer package: Y or ☒ N

3. COC record present & complete upon sample receipt: ☒ or N

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 043*

Client Name KEY-URS

Date and Time Received: 11/13/2008 4:05:00 PM

Work Order Number 0813254

Received by EM

Checklist completed by

Eric Luper
Signature Date 11/13/08

Reviewed by

JST 11/16/08
Initials Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: *Collection times not written on chain for all samples and not on jar for all*

samples except for -004 and -005.

Corrective Action _____

KEY-URS043 A7

H2M LABS, INC.

SDG NARRATIVE FOR WET CHEMISTRY
SAMPLE RECEIVED: 11/20/08
SDG: KEY-URS045

For Sample:

DGP-257/45-50

One soil sample was received by H2M Labs, Inc. for select wet chemistry analysis.

Samples were prepared and analyzed using the following methods:

Cyanide	EPA SW846 9010/9014
Percent Moisture	ASTM D2216

Batch QC was utilized for cyanide analysis and reporting.

No problems were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: December 9, 2008



* * * * *
* * * * *

Vincent Stancampiano
Vice President

KEY-URS045 A3

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER National Grid
Hempstead MGP PDI
#11175065.00011

SAMPLERS: (signature)/Client

Jeffrey H. Harshman URS

DELIVERABLES:

TURNAROUND TIME: Standard

DATE	TIME	MATRIX	FIELD I.D.
11-19-08	1130	GW	H15B-101/GW/40-44
11-19-08	1330	GW	H15B-101/GW/50-54
11-19-08	1500	GW	H15B-101/GW/60-64
11-19-08		H2O	200B119-TB-2
11-19-08	1135	GW	H15B-100/GW/50-54
11-19-08	1345	GW	H15B-100/GW/60-64
11-20-08	0930	GW	H15B-101/GW/70-74
11-20-08	1300	GW	H15B-101/GW/80-84
11-20-08	0950	soil	D6P-257/45-50*

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey H. Harshman</i>	11-20-08	14:59	<i>S.W.</i>	11-20-08	14:59
<i>S.W.</i>	11-20-08	16:12	<i>Jeffrey H. Harshman</i>	11-20-08	16:12

WHITE COPY 45 ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

29790

EXTERNAL CHAIN OF CUSTODY

CLIENT: URS

H2M SDG NO: KEY-URS044/H5

Project Contact:
Kevin Connare
Jeff Harshman

Phone Number:

PIS/Quote #

NOTES:

* Run total CN:
should results
exceed 40 ppm,
run sample
for free CN

Sample Container Description	↑	Ortho Phosphate	Alkalinity	Nitrate - Nitrogen	Nitrite - Nitrogen	PAH # 8270C	BTEX # 8260B	PAH # 8270C
Total CN								

ANALYSIS REQUESTED

ORGANIC	INORG.
VOA	Metal

Containers

Total No. of

LAB I.D. NO.

REMARKS:

0813520-003

-004

-005

-008

-001

-002

-006

-007

0813522-001A

KEY-URS044

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

1. Shipped or Hand Delivered ☒ Audit#

2. Ambient or chilled, Temp.

3. Received in good condition ☒ or N

4. Properly preserved: ☒ or N

COC Tape was:

1. Present on outer package: Y or ☒ N

2. Unbroken on outer package: Y or ☒ N

3. COC record present & complete upon sample receipt: ☒ or N

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/18/08
SDG #: KEY-URS052

For Samples:

HISB-106/67-69

The above sample was analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicate good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 7, 2009

*  *
*

Joann M. Slavin
Senior Vice President

KEY-URS052 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 12/18/08

SDG #: KEY-URS052

For Sample:

HISB-106/67-69

The above soil sample was extracted by EPA Method 3545 and analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

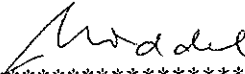
All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

The sample was subjected to GPC clean-up.

No matrix spike/ matrix spike duplicate was requested. A lab-fortified blank (LFB) was analyzed, and results indicate good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 5, 2009

*  *
*

Ursula Middel
Technical Manager

KEY-URS052 A4

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid Hempstead MGP POI
11175065.00011

SAMPLERS: (signature)/Client

Jeffrey K. Harshman (URS)

DELIVERABLES:

TURNAROUND TIME:

CLIENT: URS

H2M SDG NO: KEY-URS05162

Project Contact: Kevin Connane
Phone Number: Jeff Harshman

PIS/Quote #

NOTES:

TURNAROUND TIME:				Total No. of Containers	ANALYSIS REQUESTED						LAB I.D. NO	REMARKS:
DATE	TIME	MATRIX	FIELD I.D.		ORGANIC			INORG.				
					VOA	BZA	PCB	Metal	CN			
12-17-08		H ₂ O	20081217-TB-1	2	X						0814495-089A	KEY-URS051
12-18-08	1020	GW	H15B-105-2/GW/100-104	4	X	X					-088 AB	
12-18-08	1045	GW	H15B-105-2/GW/90-94	4	X	X					-087	
12-18-08	1120	GW	H15B-105-2/GW/80-84	4	X	X					-086	
12-18-08	1150	GW	H15B-105-2/GW/70-74	4	X	X					-085	
12-18-08	1330	GW	H15B-105-2/GW/60-64	4	X	X					-084	
12-18-08	1350	GW	H15B-105-2/GW/50-54	4	X	X					-083	
12-18-08	1415	GW	H15B-105-2/GW/40-44	4	X	X					-082	
12-18-08	1445	GW	H15B-105-2/GW/30-34	4	X	X					-081	
12-18-08	1500	SOIL	H15B-106/67-69	2	X	X					0814500-081AB	KEY-URS052

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:
1. Shipped _____ or Hand Delivered ☒ Airline _____
2. Ambient or chilled, Temp _____
3. Received in good condition? Y or N _____
4. Properly preserved? Y or N _____

COC Labels were:
1. Present on outer package: Y or N ☒
2. Unbroken on outer package: Y or N ☒
3. COC record present & complete upon sample receipt: Y or N ☒

PINK COPY - LABORATORY

YELLOW COPY - CLIENT

WHITE COPY - ORIGINAL

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 12/30/08
SDG #: KEY-URS053

For Sample(s):

DGP-251/10-13
DGP-251/20-22
DGP-251/25-28
DGP-264/30-34

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicate good method efficiency.

All samples were initially analyzed at a 1:10 dilution. Sample DGP-251/25-28 had a high surrogate recovery for 4-bromofluorobenzene. All samples were reanalyzed at a medium level. All surrogate recoveries were acceptable in the medium level. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 20, 2009

*
*

Joann M. Slavin
Senior Vice President

KEY-URS053 A3

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478

Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VBLK010809	89	88	88		0
02	LFB010809	83	88	86		0
03	DGP-251/10-13	89	91	94		0
04	DGP-251/20-22	84	95	101		0
05	DGP-251/25-28	86	105	164 *		1
06	DGP-264/30-34	84	91	96		0

QC Limit

SMC1 DCA = 1,2-Dichloroethane-d4 (33-150)
SMC2 TOL = Toluene-d8 (43-157)
SMC3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 12/30/08

SDG #: KEY-URS053

For Sample(s):

DGP-251/10-13

DGP-251/20-22

DGP-251/25-28

DGP-264/30-34

2/26/09
Soil

The above ~~water~~ sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Samples DGP-251/10-13, DGP-251/20-22 and DGP-264/30-34 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Samples DGP-251/10-13 and DGP-264/30-34 had high surrogate recovery for d14 terphenyl. All surrogate recoveries are diluted out in the dilutions.

Samples DGP-251/10-13, DGP-251/20-22 and DGP-264/30-34 were concentrated to a final volume of 1mL after GPC cleanup. Samples DGP-251/10-13, DGP-251/20-22 and DGP-264/30-34 had low internal standard area counts in the undiluted analysis. All area counts are acceptable in the dilution.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 12, 2009

*

*

*

Joann M. Slavin

Senior Vice President

KEY-URS053 A4

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URSSAS No.: _____ SDG No.: KEY-URS053Lab File ID: 9\N28743.DDFTPP Injection Date: 01/07/09Instrument ID: HP5973NDFTPP Injection Time: 9:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	39.2
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	40.0 - 60.0% of mass 198	46.5
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	24.0
365	Greater than 1.0% of mass 198	3.4
441	Present, but less than mass 443	9.0
442	40.0 - 110.0% of mass 198	60.6
443	17.0 - 23.0% of mass 442	10.4 (17.2)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	9\N28744.D	01/07/09	9:58
02	MB-29623	MB-29623	9\N28747.D	01/07/09	14:04
03	LFB-29623	LFB-29623	9\N28748.D	01/07/09	14:32
04	DGP-251/25-28	0814756-003B	9\N28749.D	01/07/09	15:01
05	DGP-251/10-13	0814756-001B	9\N28750.D	01/07/09	15:29
06	DGP-251/20-22	0814756-002B	9\N28751.D	01/07/09	15:58
07	DGP-264/30-34	0814756-004B	9\N28752.D	01/07/09	16:28

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS053Instrument ID: HP5973N Calibration Dates: 11/11/2008 11/11/2008Heated Purge: (Y/N) N Calibration Times: 17:55 20:36GC Column: R-5STIMS ID: .25 (mm)

LAB FILE ID: SSTD005= <u>N28126.D</u>		SSTD010= <u>N28125.D</u>		SSTD025= <u>N28121.D</u>		SSTD040= <u>N28124.D</u>		SSTD060= <u>N28123.D</u>	
SSTD080= <u>N28122.D</u>		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
COMPOUND								RRF	RSD
Phenanthrene		1.4160434	1.4060933	1.2193473	1.2287656	1.1862822	1.1184928	1.263	9.6
Anthracene		1.3927451	1.3951386	1.1929833	1.1819035	1.1126358	1.032327	1.218	12.1
Carbazole		1.2294567	1.2704913	1.1162158	1.1344248	1.1070168	1.0369597	1.149	7.5
Di-n-butyl phthalate		1.4952433	1.5307019	1.3195377	1.3314042	1.2850758	1.2142841	1.363	9.1
Fluoranthene	*	1.4445983	1.4316578	1.2224526	1.2087897	1.1669863	1.0930126	1.261	11.4
Pyrene		1.751112	1.7979679	1.5717126	1.6405910	1.6770525	1.7086473	1.691	4.8
Butyl benzyl phthalate		0.7459362	0.7741303	0.6868249	0.7162336	0.7158187	0.707715	0.724	4.3
3,3'-Dichlorobenzidine		0.6572373	0.5559372	0.5051741	0.5019063	0.5122202	0.5051790	0.523	5.0
Benzo(a)anthracene		1.6354929	1.6065223	1.4117402	1.5035600	1.5313099	1.5418714	1.538	5.2
Chrysene		1.4931832	1.4607080	1.2370555	1.2927006	1.3571251	1.3933579	1.372	7.1
Bis(2-ethylhexyl)phthalate		0.9942907	1.0097221	0.8548521	0.8906077	0.8806854	0.8842674	0.919	7.1
Di-n-octyl phthalate	*	1.8942648	1.9397882	1.4879838	1.6103082	1.3953846	1.3104456	1.606	16.2
Benzo(b)fluoranthene		1.8734995	1.7429569	1.4156256	1.6773929	1.6817925	1.608154	1.667	9.1
Benzo(k)fluoranthene		1.5784661	1.6644987	1.1327357	1.0817671	1.0722437	0.9656905	1.249	23.6
Benzo(a)pyrene	*	1.5439806	1.5979491	1.2432006	1.3797548	1.2750544	1.219252	1.377	11.7
Indeno(1,2,3-cd)pyrene		1.6670336	1.7121809	1.4246146	1.5390786	1.4803228	1.448949	1.545	7.7
Dibenzo(a,h)anthracene		1.3912048	1.4240186	1.1688827	1.2527097	1.1946974	1.1758256	1.268	8.9
Benzo(g,h,i)perylene		1.4369778	1.5017228	1.2861414	1.3737828	1.3206550	1.3060001	1.371	6.1
2-Fluorophenol		1.3138295	1.2888243	1.3035994	1.2820009	1.2851574	1.2619381	1.289	1.4
Nitrobenzene-d5		0.3918257	0.3725886	0.355142	0.3303855	0.334721	0.3276753	0.352	7.4
Phenol-d5		1.580398	1.527986	1.5346454	1.4566298	1.4272527	1.3756902	1.484	5.2
2,4,6-Tribromophenol		0.2375074	0.2284515	0.232574	0.2165582	0.2177592	0.2072049	0.222	4.7
2-Fluorobiphenyl		1.5966075	1.4969206	1.3811335	1.3254421	1.3169720	1.2607025	1.396	9.1

FORM VI

SW8270C

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053EPA Sample No.(SSTD050##): SSTD025Date Analyzed: 01/07/09Lab File ID (Standard): 9IN28744.DTime Analyzed: 9:58Instrument ID: HP5973NGC Column: R-5SILMS ID: .25 (mm)

	IS1		IS2		IS3	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	476314	3.90	1792383	5.22	1059676	8.14
UPPER LIMIT	952628	4.40	3584766	5.72	2119352	8.64
LOWER LIMIT	238157	3.40	896192	4.72	529838	7.64
EPA SAMPLE NO.						
01 MB-29623	372086	3.90	1312075	5.22	756870	8.12
02 LFB-29623	411820	3.90	1481078	5.22	840627	8.12
03 DGP-251/25-28	430057	3.90	1543720	5.21	843363	8.14
04 DGP-251/10-13	345586	3.90	638210*	5.31	450008*	8.35
05 DGP-251/20-22	308198	3.90	1125059	5.22	606960	8.17
06 DGP-264/30-34	313276	3.90	573912*	5.30	477741*	8.30

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS. INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS053EPA Sample No.(SSTD050##): SSTD025

Date Analyzed:

01/07/09

Lab File ID (Standard):

9W28744.D

Time Analyzed:

9:58

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: .25

(mm)

	IS4		IS5		IS6	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1634394	10.96	1343718	14.47	1365644	15.53
UPPER LIMIT	3268788	11.46	2687436	14.97	2731288	16.03
LOWER LIMIT	817197	10.46	671859	13.97	682822	15.03
EPA SAMPLE NO.						
01 MB-29623	1146517	10.94	1006743	14.46	947842	15.52
02 LFB-29623	1292315	10.94	1114841	14.47	1116858	15.51
03 DGP-251/25-28	1254104	10.98	1065539	14.48	1079608	15.52
04 DGP-251/10-13	58679*	11.24	98537*	14.63	133115*	15.58
05 DGP-251/20-22	842847	11.02	602620*	14.49	352365*	15.53
06 DGP-264/30-34	71823*	11.11	282263*	14.56	169775*	15.54

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

PROJECT NAME/NUMBER
National Grid Hempstead MGP POI

1175065.00011

SAMPLERS: (signature)\Client

Signature/Client Jeffrey W. Grossman URS

DELIVERABLES:

TURNAROUND TIME: *Standard*

[illegible]

LABORATORY USE ONLY			
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>[Signature]</i>	12/30/08	14:35	<i>S.W. [Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
<i>S.W. [Signature]</i>	12-30-08	16:08	<i>E. [Signature]</i>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)
Relinquished by: (Signature)	Date	Time	Received by: (Signature)

Samples were:

1. Shipped _____ or Hand Delivered _____ Airbill# _____

2. Ambient or chilled, Temp _____

3. Received in good condition: Y or N

4. Properly preserved: Y or N

COC Tags were:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

3. COC record present & complete upon sample receipt: Y or N

Discrepances Between Sample Labels and COC Record? Y or N

Explain: _____

KNOW THE COPY IS ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS SAMPLES RECEIVED: 1/7/09 SDG #: KEY-URS054

For Sample(s):

DGP-265/32.5-33

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicate good method efficiency.

Sample DGP-265/32.5-33 was initially analyzed at a 1:10 dilution. Sample DGP-265/32.5-33 was reanalyzed at a medium level. The original medium level did not compare to the low level analysis. The medium level was reanalyzed however outside of the analytical holding time. Both sets of data are submitted.

Total xylene had a 36.8 %D in the continuing calibration of 1/18/09. This %D was above 25% however within the upper limit of 40 %D.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 22, 2009

*  *
*

Joann M. Slavin
Senior Vice President

KEY-URS054 A3

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS054
 Lab File ID: A\A63110.D BFB Injection Date: 01/21/09
 Instrument ID: HP5971 BFB Injection Time: 15:02
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.2
75	30.0 - 60.0% of mass 95	41.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	54.0
175	5.0 - 9.0% of mass 174	3.9 (7.2)1
176	95.0 - 101.0% of mass 174	52.7 (97.7)1
177	5.0 - 9.0% of mass 176	3.5 (6.7)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AVA63111.D	01/21/09	15:16
02	VBLK012109	VBLK012109	AVA63112.D	01/21/09	15:49
03	LFB012109	LFB012109	AVA63113.D	01/21/09	16:18
04	DGP-265/32.5-33	0901189-001A	AVA63121.D	01/21/09	20:11

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 1/7/09

SDG #: KEY-URS054

For Sample(s):

DGP-265/32.5-33

2/26/09
soil

The above ~~water~~ sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Sample DGP-265/32.5-33 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. The undiluted analysis had high percent recoveries for the surrogate standard d14 4-terphenyl and low internal standard area counts.

All surrogate recoveries and internal standard area counts were acceptable in the dilution.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 21, 2009

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Joann M. Slavin
Senior Vice President

KEY-URS054 A4

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS054EPA Sample No.(SSTD050##): SSTD025Date Analyzed: 01/13/09Lab File ID (Standard): 9N28775.DTime Analyzed: 9:10Instrument ID: HP5973NGC Column: R-5SILMS ID: .25 (mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	558743	3.88	2067687	5.19	1204359	8.10
UPPER LIMIT	1117486	4.38	4135374	5.69	2408718	8.60
LOWER LIMIT	279372	3.38	1033844	4.69	602180	7.60
EPA SAMPLE NO.						
01 MB-29672	378237	3.88	1355313	5.18	780227	8.08
02 LFB-29672	380161	3.88	1393595	5.18	785129	8.09
03 DGP265/32.5-33	242791*	3.88	520270*	5.46	480595*	8.50

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS054 B9

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS054EPA Sample No.(SSTD050##): SSTD025Date Analyzed: 01/13/09Lab File ID (Standard): 9\N28775.DTime Analyzed: 9:10Instrument ID: HP5973NGC Column: R-5SILMS ID: 25 (mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD	1821897	10.92	1479809	14.45	1514894	15.49
UPPER LIMIT	3643794	11.42	2959618	14.95	3029788	15.99
LOWER LIMIT	910949	10.42	739905	13.95	757447	14.99
EPA SAMPLE NO.						
01 MB-29672	1172828	10.90	1034084	14.44	940940	15.49
02 LFB-29672	1202293	10.90	1025115	14.44	990562	15.48
03 DGP265/32.5-33	80405*	11.26	85130*	14.60	135563*	15.54

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS054 B10

Form 6
8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC. Contract: H2M LABS, INC.
 Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS054
 Instrument ID: HP5973N Calibration Dates: 11/11/2008, 11/11/2008
 Heated Purge: (Y/N) N Calibration Times: 17:55 20:36
 GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:	SSTD005=	N28126.D	SSTD010=	N28125.D	SSTD025=	N28121.D	SSTD040=	N28124.D	SSTD060=	N28123.D
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD
Phenanthrene	1.4160434	1.4060933	1.2193473	1.2287656	1.1862822	1.1184928			1.263	9.6
Anthracene	1.3927451	1.3951386	1.1929833	1.1819035	1.1126358	1.032327			1.218	12.1
Carbazole	1.2294567	1.2704913	1.1162158	1.1344248	1.1070168	1.0369597			1.149	7.5
Di-n-butyl phthalate	1.4952433	1.5307019	1.3195377	1.3314042	1.2850758	1.2142841			1.363	9.1
Fluoranthene	1.4445983	1.4316578	1.2224526	1.2087897	1.1669863	1.0930126			1.261	11.4 *
Pyrene	1.751112	1.7979679	1.5717126	1.6405910	1.6770525	1.7086473			1.891	4.8
Butyl benzyl phthalate	0.7459362	0.7741303	0.8668249	0.7162336	0.7156187	0.707715			0.724	4.3
3,3'-Dichlorobenzidine	0.5572373	0.5559372	0.5051741	0.5019063	0.5122202	0.5051790			0.523	5.0
Benzo(a)anthracene	1.6354929	1.6065223	1.4117402	1.5035600	1.5313099	1.5418714			1.538	5.2
Chrysene	1.4931832	1.4607080	1.2370556	1.2927006	1.3571251	1.3933579			1.372	7.1
Bis(2-ethylhexyl)phthalate	0.9942907	1.0097221	0.8548521	0.8906077	0.8806854	0.8842674			0.919	7.1
Di-n-octyl phthalate	1.8942648	1.9397882	1.4879838	1.6103082	1.3953846	1.3104456			1.606	16.2 *
Benzo(b)fluoranthene	1.8734995	1.7429569	1.4156256	1.6773929	1.6817925	1.608154			1.667	9.1
Benzo(k)fluoranthene	1.5784661	1.6644987	1.1327357	1.0817671	1.0722437	0.9656905			1.249	23.6
Benzo(a)pyrene	1.5439906	1.5979491	1.2432006	1.3797548	1.2750544	1.219252			1.377	11.7 *
Indeno(1,2,3-cd)pyrene	1.6670336	1.7121809	1.4246146	1.5390786	1.4803228	1.448949			1.545	7.7
Dibenzo(a,h)anthracene	1.3912048	1.4240186	1.1688827	1.2527097	1.1946974	1.1758256			1.268	8.9
Benzo(g,h,i)perylene	1.4369778	1.5017228	1.2861414	1.3737828	1.3206650	1.3060001			1.371	6.1
2-Fluorophenol	1.3138295	1.2888243	1.3035994	1.2820009	1.2851574	1.2619381			1.289	1.4
Nitrobenzene-d5	0.3918257	0.3725886	0.355142	0.3303855	0.334721	0.3276753			0.352	7.4
Phenol-d5	1.580398	1.527986	1.5346454	1.4566298	1.4272527	1.3755902			1.484	5.2
2,4,6-Tribromophenol	0.2375074	0.2284515	0.232574	0.2165582	0.2177592	0.2072049			0.222	4.7
2-Fluorobiphenyl	1.5966075	1.4969206	1.3811335	1.3254421	1.3169720	1.2607025			1.396	9.1

SW8270C

FORM VI

KEY-URS054 B45

29519

H-2M LABS, INC.575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436**EXTERNAL CHAIN OF CUSTODY**

PROJECT NAME/NUMBER

National Grid Hempstead MGP PDI

11175065.00011

SAMPLERS: (signature)/Client

Jeffrey K. Harshman URS

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.
11.6.09		H ₂ O	20090106-TB-1
11.5.09		Soil	DEP-265/32.5-33
1.7.09	1330	GW	HUSB-102-2/GW/80-84
1.7.09	1400	GW	HUSB-102-2/GW/70-74
1.7.09	1430	GW	HUSB-102-2/GW/60-64

CLIENT: URS

H2M SDG NO: KEY-URS 054

NOTES:

Project Contact:

Kevin Canale

Jeff Harshman

Phone Number:

PIS/Quote #

Sample Container Description

BTEX x 82608
PAH x 8270C

ANALYSIS REQUESTED

Total No. of Containers

INORG.

Metal

CN

LAB I.D. NO.

REMARKS:

D901190-004A
D901191-001A5
D901190-003A3
-002
-001KEY-URS 055
KEY-URS 054
KEY-URS 055

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N

Explicit:

Samples were:

1. Shipped or Hand Delivered? Airbill#

2. Ambient or Cooled, Temp

3. Received in good condition: Y or N

4. Properly preserved: Y or N

COC Trace was:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

3. COC record present & complete upon sample receipt: Y or N

PINK COPY - LABORATORY

YELLOW COPY - CLIENT

KEY-URS 054 ORIGINAL

WHITE COPY - ORIGINAL

H2M LABS, INC.

Sample Receipt Checklist *KEY-URS 054*

Client Name KEY-URS

Date and Time Received: 1/7/2009 4:25:00 PM

Work Order Number 0901189

Received by EM

Checklist completed by

[Signature] Date 1/7/09

Reviewed by

[Signature] Date 1/9/09

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Applicable ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Applicable ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Applicable ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☒

No ☐

Adjusted? _____

Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____

Date contacted: _____

Person contacted _____

Contacted by: _____

Regarding _____

Comments:

No collection time was written for sample

Corrective Action _____

KEY-URS054 A7

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLE(S) RECEIVED: 1/13/09 – 1/19/09
SDG #: KEY-URS056

For Sample(s):

DGP-266/5-10	DGP-205/27-30	DGP-278/30-32
DGP-267/15-18	DGP-207/25-29	DGP-278/38-40
DGP-270/30-31	DGP-275/35.5-37	DGP-279/29-30
DGP-271/33-34.5	DGP-277/30-31	DGP-280/27.5-29
DGP-272/24-25	DGP-278/28-30	

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted, but five lab fortified blanks were analyzed. All percent recoveries were within QC limits with the exception of a high recovery of 138% for total xylene (limit 133%) in LFB020709. This does not impact the data, because xylene in the affected sample is above the calibration range.

The surrogate recovery for 4-bromofluorobenzene in sample DGP-207/25-29 was above the Q. C. limit.

Eight samples were analyzed at dilutions based on expected concentrations. Five samples required further dilution and were analyzed with the medium level procedure. Both, the low level analysis and medium level run are reported. For four of the medium level analyses, dilutions were performed of the extracts before analysis.

The data for the low and medium level runs for sample DGP-207/25-29 did not match, and the low level analysis was repeated, and confirmed the medium level data. The low level re-analysis is reported, even though the holding time was exceeded. Data from the medium level analysis should be used.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 10, 2009

* *Ursula Middel* *
*

Ursula Middel
Technical Manager

KEY-URS056 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS SAMPLE RECEIVED: 1/13/09, 1/14/09 & 1/19/09 SDG #: KEY-URS056

For Sample(s):

DGP-266/5-10	DGP-205/27-30	DGP-278/30-32
DGP-267/15-18	DGP-207/25-29	DGP-278/38-40
DGP-270/30-31	DGP-275/35.5-37	DGP-279/29-30
DGP-271/33-34.5	DGP-277/30-31	DGP-280/27.5-29
DGP-272/24-25	DGP-278/28-30	

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

Sample DGP-271/33-34.5 was initially analyzed at a 1:10 dilution. Samples DGP-270/30-31, DGP-271/33-34.5, DGP-272/24-25, DGP-205/27-30, DGP-207/25-29, DGP-277/30-31, DGP-278/28-30 and DGP-279/29-30 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range.

Samples DGP-270/30-31, DGP-271/33-34.5, DGP-272/24-25, DGP-205/27-30, DGP-207/25-29, DGP-277/30-31 and DGP-279/29-30 had high surrogate recovery in the undiluted analysis. Surrogate recoveries were diluted out in samples DGP-270/30-31, DGP-271/33-34.5, DGP-272/24-25, DGP-205/27-30, DGP-207/25-29, DGP-277/30-31 and DGP-278/28-30. All surrogate recoveries were acceptable in the dilution of sample DGP-279/29-30.

2/27/09
2
Samples DGP-270/30-31, DGP-207/25-29, DGP-278/28-30, DGP-205/27-30 and DGP-279/29-30 had low internal standard area counts in the undiluted analysis. All area counts are acceptable in the dilutions.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: January 30, 2009

*  *
*

Joann M. Slavin
Senior Vice President

KEY-URS056 A4

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056Lab File ID: 9\N28862.D

DFTPP Injection Date: _____

01/21/09Instrument ID: HP5973N

DFTPP Injection Time: _____

10:33

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	39.7
68	Less than 2.0% of mass 69	0.2 (0.5)1
69	Mass 69 relative abundance	40.4
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	47.0
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	24.4
365	Greater than 1.0% of mass 198	3.3
441	Present, but less than mass 443	8.3
442	40.0 - 110.0% of mass 198	56.4
443	17.0 - 23.0% of mass 442	10.8 (19.2)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	9\N28863.D	01/21/09	10:48
02	MB-29740	MB-29740	9\N28864.D	01/21/09	11:18
03	LFB-29740	LFB-29740	9\N28865.D	01/21/09	11:46
04	DGP-275/35.5-37	0901511-003B	9\N28866.D	01/21/09	12:14
05	DGP-277/30-31	0901511-004B	9\N28867.D	01/21/09	12:43
06	DGP-278/30-32	0901511-006B	9\N28868.D	01/21/09	13:11
07	DGP-278/38-40	0901511-007B	9\N28869.D	01/21/09	13:40
08	DGP-280/27.5-29	0901511-009B	9\N28870.D	01/21/09	14:08
09	DGP-205/27-30	0901511-001B	9\N28871.D	01/21/09	14:36
10	DGP-207/25-29	0901511-002B	9\N28872.D	01/21/09	15:05
11	DGP-278/28-30	0901511-005B	9\N28873.D	01/21/09	15:33
12	DGP-279/29-30	0901511-008B	9\N28874.D	01/21/09	16:01

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS. INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

EPA Sample No.(SSTD050##):

SSTD025

Date Analyzed:

01/16/09

Lab File ID (Standard):

9\N28818.D

Time Analyzed:

12:47

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: .25

(mm)

	IS4		IS5		IS6	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1200048	10.88	1040592	14.43	1050763	15.47
UPPER LIMIT	2400096	11.38	2081184	14.93	2101526	15.97
LOWER LIMIT	600024	10.38	520296	13.93	525382	14.97
EPA SAMPLE NO.						
01 MB-29707	1145389	10.86	1027109	14.42	912830	15.46
02 LFB-29707	1327300	10.87	1128803	14.43	1133092	15.46
03 DGP-266/5-10	1123349	10.86	1009349	14.42	930190	15.46
04 DGP-267/15-18	1129741	10.86	975663	14.42	916180	15.46
05 DGP-272/24-25	760464	11.08	534982	14.52	371611*	15.51
06 DGP-270/30-31	667384	11.07	477130*	14.52	307246*	15.50

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS056 B14

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS056

EPA Sample No.(SSTD050##):

SSTD025

Date Analyzed:

01/21/09

Lab File ID (Standard):

9\N28863.D

Time Analyzed:

10:48

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: 25

(mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	410484	3.84	1511023	5.12	864511	8.01
UPPER LIMIT	820968	4.34	3022046	5.62	1729022	8.51
LOWER LIMIT	205242	3.34	755512	4.62	432256	7.51
EPA SAMPLE NO.						
01 MB-29740	375996	3.84	1394706	5.11	788507	8.00
02 LFB-29740	357821	3.84	1315278	5.12	738652	8.00
03 DGP-275/35.5-37	365501	3.84	1382961	5.11	776536	8.00
04 DGP-277/30-31	343275	3.84	886744	5.16	702309	8.07
05 DGP-278/30-32	366642	3.84	1394797	5.11	785899	8.00
06 DGP-278/38-40	351422	3.84	1322105	5.11	748538	8.00
07 DGP-280/27.5-29	393510	3.84	1467756	5.11	818138	8.00
08 DGP-205/27-30	243715	3.84	462850*	5.39	708097	8.26
09 DGP-207/25-29	152918*	3.85	467135*	5.33	754634	8.34
10 DGP-278/28-30	109307*	3.85	610937*	5.51	783132	8.46
11 DGP-279/29-30	363845	3.83	1362072	5.12	758308	8.05

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS056 B17

8C
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS056
 EPA Sample No.(SSTD050##): SSTD025 Date Analyzed: 01/21/09
 Lab File ID (Standard): 9\N28863.D Time Analyzed: 10:48
 Instrument ID: HP5973N GC Column: R-5SILMS ID: .25 (mm)

	IS4		IS5		IS6	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	1294059	10.83	1079494	14.40	1119861	15.45
UPPER LIMIT	2588118	11.33	2158988	14.90	2239722	15.95
LOWER LIMIT	647030	10.33	539747	13.90	559931	14.95
EPA SAMPLE NO.						
01 MB-29740	1184750	10.81	1004462	14.39	854869	15.44
02 LFB-29740	1101403	10.81	948992	14.40	940243	15.45
03 DGP-275/35.5-37	1159837	10.81	997808	14.39	935290	15.44
04 DGP-277/30-31	839923	10.95	677730	14.47	607164	15.48
05 DGP-278/30-32	1186920	10.81	1034255	14.39	922169	15.44
06 DGP-278/38-40	1138877	10.81	992472	14.39	869123	15.44
07 DGP-280/27.5-29	1226252	10.81	1082736	14.39	979265	15.44
08 DGP-205/27-30	388537*	11.12	230608*	14.55	138066*	15.51
09 DGP-207/25-29	256666*	11.31	233601*	14.54	154531*	15.50
10 DGP-278/28-30	504590*	11.39*	211554*	14.53	118421*	15.49
11 DGP-279/29-30	1094613	10.88	525511*	14.46	269456*	15.47

IS4 = Phenanthrene-d10
 IS5 = Chrysene-d12
 IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
 AREA LOWER LIMIT = -50% of internal standard area
 RT UPPER LIMIT = +0.50 minutes of internal standard RT
 RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
 * Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS056 B18

Form 6
8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS056

Instrument ID: HP5973N

Calibration Dates: 11/11/2008 11/11/2008

Heated Purge: (Y/N) N

Calibration Times: 17:55 20:36

GC Column: R-5SILMS

ID: .25 (mm)

LAB FILE ID:	SSTD005=	N28126.D	SSTD010=	N28125.D	SSTD025=	N28121.D	SSTD040=	N28124.D	SSTD060=	N28123.D	
	SSTD080=	N28122.D									
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	RSD	R ²
Phenanthrene	1.4160434	1.4060933	1.2193473	1.2287656	1.1862822	1.1184928			1.263	9.6	
Anthracene	1.3927451	1.3951386	1.1929833	1.1819035	1.1126358	1.032327			1.218	12.1	
Carbazole	1.2294567	1.2704913	1.1162158	1.1344248	1.1070168	1.0369597			1.149	7.5	
Di-n-butyl phthalate	1.4952433	1.5307019	1.3195377	1.3314042	1.2850758	1.2142841			1.363	9.1	
Fluoranthene	1.4445983	1.4316578	1.2224526	1.2087897	1.1669863	1.0930126			1.261	11.4	*
Pyrene	1.751112	1.7979679	1.5717126	1.6405910	1.6770525	1.7086473			1.691	4.8	
Butyl benzyl phthalate	0.7459362	0.7741303	0.6868249	0.7162336	0.7156187	0.707715			0.724	4.3	
3,3'-Dichlorobenzidine	0.5572373	0.5559372	0.5051741	0.5019063	0.5122202	0.5051790			0.523	5.0	
Benzo(a)anthracene	1.6354929	1.6065223	1.4117402	1.5035600	1.5313099	1.5418714			1.538	5.2	
Chrysene	1.4931832	1.4607080	1.2370555	1.2927006	1.3571251	1.3933579			1.372	7.1	
Bis(2-ethylhexyl)phthalate	0.9942907	1.0097221	0.8548521	0.8906077	0.8806854	0.8942674			0.919	7.1	
Di-n-octyl phthalate	1.8942648	1.9397882	1.4879838	1.6103082	1.3953846	1.3104456			1.606	16.2	*
Benzo(b)fluoranthene	1.8734995	1.7429569	1.4156256	1.6773929	1.6817925	1.608154			1.667	9.1	
Benzo(k)fluoranthene	1.5784661	1.6644987	1.1327357	1.0817671	1.0722437	0.9656905			1.249	23.6	
Benzo(a)pyrene	1.5439806	1.5979491	1.2432006	1.3797548	1.2750544	1.219252			1.377	11.7	*
Indeno(1,2,3-cd)pyrene	1.6670336	1.7121809	1.4246146	1.5390786	1.4803228	1.448949			1.545	7.7	
Dibenzo(a,h)anthracene	1.3912048	1.4240186	1.1688827	1.2527097	1.1946974	1.1758256			1.268	8.9	
Benzo(g,h,i)perylene	1.4369778	1.5017228	1.2861414	1.3737828	1.3206550	1.3060001			1.371	6.1	
2-Fluorophenol	1.3138295	1.2888243	1.3035994	1.2820009	1.2851574	1.2619381			1.289	1.4	
Nitrobenzene-d5	0.3918257	0.3725886	0.355142	0.3303855	0.334721	0.3276753			0.352	7.4	
Phenol-d5	1.580398	1.527986	1.5346454	1.4566298	1.4272527	1.3756902			1.484	5.2	
2,4,6-Tribromophenol	0.2375074	0.2284515	0.232574	0.2165582	0.2177592	0.2072049			0.222	4.7	
2-Fluorobiphenyl	1.5966075	1.4969206	1.3811335	1.3254421	1.3169720	1.2607025			1.396	9.1	

SW8270C

FORM VI

KEY-URS056 B244

H2M LABS, INC.

KEY-URS056

Sample Receipt Checklist

Client Name KEY-URS

Date and Time Received:

1/13/2009 3:36:00 PM

Work Order Number 0901375

Received by dmc

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted

YES

Date contacted:

1/15/09

Person contacted

JEFF HARSHMAN

Contacted by:

JENABARI

Regarding

Comments:

SAMPLE DGP-266/5-10 OUT OF HOLDING TIME FOR % MOISTURE.
NO COLLECTION TIMES ON COC.

Corrective Action

OBTAINED TWO COLLECTION TIMES FROM SAMPLE BOTTLES.

KEY-URS056 A7

H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

22330

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER National Grid Hempstead MGP PDI #1175065.00011		CLIENT: URS	H2M SDG NO: KEY-UF-058
SAMPLERS: (signature)/Client <i>Jeffrey R. Harshman</i> URS		Project Contact: Kevin Connare Jeff Harshman	Phone Number: (603) 401-7322 PIS/Quote #
DELIVERABLES:		NOTES:	

TURNAROUND TIME: <i>Need results by 1/19/09</i>		FIELD I.D.		ANALYSIS REQUESTED		Total No. of Containers		Sample Container Description	
DATE	TIME	MATRIX	FIELD I.D.	ORGANIC	INORG.	ORGANIC	INORG.	ORGANIC	INORG.
1-14-09	1115	H2O	2009 0114-TB-1	X		X		BTEX x 82-608	
1-14-09	1115	GW	H15B-115/GW/90-94	X		X		PAH x 82-70C	
1-14-09	1115	GW	H15B-115/GW/80-84	X		X		Nitrate	
1-14-09	1315	GW	H15B-115/GW/70-74	X		X		Nitrite	
1-14-09	1345	GW	H15B-115/GW/60-64	X		X		Alk	
1-14-09	1415	GW	H15B-115/GW/50-54	X		X		ortho phosphate	
1-14-09	1045	SOIL	D6P-272/24-25	X		X			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
<i>Jeffrey R. Harshman</i>	1-14-09	1450	<i>S. Ward</i>	1-14-09	1450
<i>S. Ward</i>	1-14-09	1615	<i>S. Ward</i>	1-14-09	1615

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time

EXTERNAL CHAIN OF CUSTODY

#11175065.00011

signature/Client *Jeffrey W. Davidson* VRS

TURNAROUND TIME: 24 hr TAT - *contact* *crash* *concrete*

DATE	TIME	MATRIX	FIELD I.D.
1-17-09		SOIL	DGP-205/21-30
1-17-09		SOIL	DGP-207/25-29
1-17-09		SOIL	DGP-280/27.5-29
1-17-09		SOIL	DGP-277/30-31
1-17-09		SOIL	DGP-279/29-30
1-17-09		SOIL	DGP-278/28-30
1-17-09		SOIL	DGP-278/30-32
1-17-09		SOIL	DGP-278/38-40
1-16-09		SOIL	DGP-275/35.5-37

Relinquished by: (Signature)	1/19/09 1300	Time	Received by: (Signature)
Relinquished by: (Signature)	6/24/12	Time	Received by: (Signature)
Relinquished by: (Signature)		Time	Received by: (Signature)
Relinquished by: (Signature)		Time	Received by: (Signature)

LABORATORY USE ONLY		
Signature)	Date	Time
	1-18-09	1:30
Signature)	Date	Time
	1/15/09	1415
Signature)	Date	Time
Signature)	Date	Time

Discrepancies Between Sample Labels and COC Record? Y or N

Explain:

Samples were:

1. Shipped _____ or Hand Delivered ☒ Airbill# _____

2. Ambient or chilled? Temp. _____

3. Received in good condition? ☒ Y or N

4. Properly preserved? ☒ Y or N

COC Tape was:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

3. COC record present & complete upon sample receipt: Y or N

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 1/27/09
SDG #: KEY-URS060

For Sample(s):

DGP-281/20-25

DGP-281/25-30

DGP-281/30-35

DGP-283/25-30

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. Lab fortified blanks were analyzed. All percent recoveries were within or above QC limits.

Sample DGP-281/20-25 and DGP-281/25-30 were initially analyzed at a dilution. These samples were reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.


Sample DGP-281/30-35 had high surrogate recoveries for 4 bromofluorobenzene. The sample was reanalyzed with similar high percent recoveries. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 6, 2009

*

*


Joann M. Slavin
Senior Vice President

KEY-URS060 A3

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS060Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VBLK012909	81	82	76		0
02	LFB012909	78	84	80		0
03	DGP-281/20-25	82	82	97		0
04	DGP-281/25-30	88	83	109		0
05	VBLK020309	90	77	78		0
06	LFB020309	70	77	80		0
07	DGP-281/30-35	91	81	152 *		1
08	DGP-283/25-30	88	81	103		0
09	DGP-281/30-35RE	97	82	174 *		1

QC Limit

SMC 1 DCA = 1,2-Dichloroethane-d4 (33-150)
 SMC 2 TOL = Toluene-d8 (43-157)
 SMC 3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLE RECEIVED: 1/27/09
SDG #: KEY-URS060

For Sample(s):

DGP-281/20-25
DGP-281/25-30
DGP-281/30-35
DGP-283/25-30

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike / matrix spike duplicate was submitted. Lab fortified blanks were analyzed and indicate good method efficiency.

Sample DGP-283/25-30 was concentrated to a final volume of 1 ml.

Samples DGP-281/20-25, DGP-281/25-30, DGP-281/30-35 and DGP-283/25-30 were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. All surrogate recoveries were diluted out in the dilution. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: February 9, 2009

Joann M. Slavin

Joann M. Slavin
Senior Vice President

NRC

KEY-URS060 A4

Form 6
8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS060

Instrument ID: HP5973N Calibration Dates: 1/26/2009 1/26/2009

Heated Purge: (Y/N) N Calibration Times: 17:09 19:54

GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:		SSTD005= N28907.D	SSTD010= N28906.D	SSTD025= N28902.D	SSTD040= N28905.D	SSTD060= N28904.D			
		SSTD080= N28903.D							
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	RRF	% RSD	R ²
4-Nitroaniline	0	0.3432148	0.3294073	0.3902483	0.3980180	0.3945256	0.371	8.7	
4,6-Dinitro-2-methylphenol	0	0.0799112	0.0931208	0.1238997	0.1379403	0.1492712	0.117	25.2	
N-Nitrosodiphenylamine	*	0.747214	0.7790147	0.726909	0.8548685	0.8740446	0.811	8.5	*
1,2-Diphenylhydrazine	1.0058861	1.0521781	0.9692852	1.0637064	1.0811975	1.0249616	1.033	4.0	
4-Bromophenyl-phenylether	0.2354812	0.2516571	0.2351582	0.2978778	0.3267644	0.3202215	0.278	15.2	
Hexachlorobenzene	0.264945	0.2806117	0.2636467	0.3206471	0.3375831	0.3427927	0.302	12.0	
Pentachlorophenol	*	0	0.1593808	0.1721775	0.221207	0.2363758	0.206	18.5	*
Phenanthrene	1.2881409	1.3792726	1.3254352	1.5452362	1.5431293	1.4311499	1.419	7.7	
Anthracene	1.241467	1.3081206	1.2247802	1.4484138	1.4843739	1.4379789	1.358	8.4	
Carbazole	1.1214485	1.2048621	1.1194080	1.3082199	1.3459258	1.3312286	1.239	8.4	
Di-n-butyl phthalate	1.5244739	1.6344012	1.508214	1.7077666	1.7127785	1.6209403	1.618	5.4	
Fluoranthene	*	1.2741521	1.3527264	1.2778872	1.4886671	1.5141006	1.4621543	1.395	7.7
Pyrene	1.5232458	1.5910736	1.4116846	1.5476300	1.5296519	1.4163948	1.503	4.9	
Butyl benzyl phthalate	0.7956468	0.8602181	0.7774839	0.8225283	0.7937098	0.7059639	0.793	6.5	
3,3'-Dichlorobenzidine	0.4786833	0.5150233	0.5408061	0.588388	0.6016490	0.5595156	0.547	8.4	
Benzo(a)anthracene	1.5034622	1.5605143	1.3888455	1.5581901	1.566694	1.5262687	1.517	4.4	
Chrysene	1.3245971	1.4148592	1.2861038	1.4196236	1.3894747	1.2771296	1.352	4.8	
Bis(2-ethylhexyl)phthalate	1.091551	1.1985785	1.0876343	1.1545365	1.1095646	1.0053271	1.108	5.9	
Di-n-octyl phthalate	*	2.0179061	2.1645633	1.808714	2.2073663	2.1728511	2.0227881	2.066	7.2
Benzo(b)fluoranthene	1.7151877	1.8517899	1.5448468	2.0951232	2.314588	2.4612507	1.997	7.8	
Benzo(k)fluoranthene	1.4674904	1.5439448	1.3312185	1.6346954	1.4627259	1.4790485	1.487	6.8	
Benzo(a)pyrene	*	1.3639317	1.4663970	1.2428188	1.6074179	1.6306179	1.491	10.9	*
Indeno(1,2,3-cd)pyrene	1.5441906	1.6541328	1.4385398	1.8298543	1.8532614	1.8538692	1.696	10.5	

FORM VI

SW8270C

KEY-URS060 B105

SAMPLERS: (signature)/Client *Jeffrey H. Sussman* *URS*

DATE	TIME	MATRIX	FIELD I.D.
1.26.09	1300	SOL	DGP-281/20-25
1.26.09	1305	SOL	DGP-281/25-
1.26.09	1310	SOL	DGP-281/30-35
1.27.09	1445	SOL	DGP-283/25

Relinquished by: (Signature)

Date	Time
------	------

Received by: (Signature)

Date	Time
------	------

2. Unbroken on outer pack

pe: Y or N

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 7/1/09
SDG #: KEY-URS064

For Sample(s):

DGP-312/25-25.5

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

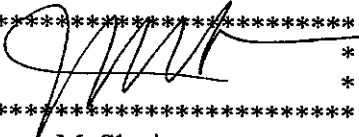
All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicates good method efficiency.

Sample DGP-312/25-25.5 was initially analyzed at a 1:5 dilution due to ^{high} concentration levels of targeted analytes ~~above the calibration range.~~
non ^{2/25/09}

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 22, 2009

*  *
* *

Joan M. Slavin
Senior Vice President

KEY-URS064 A3

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 7/1/09

SDG #: KEY-URS064

For Sample(s):

DGP-312/25-25.5

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicates good method efficiency.

Sample DGP-312/25-25.5 was reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. The undiluted analysis for sample DGP-312/25-25.5 had low internal standard area counts. All were acceptable in the dilution. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 24, 2009

*
*
*

Joann M. Slavin
Senior Vice President

KEY-URS064 A4

EXTERNAL CHAIN OF CUSTODY

PINK COPY - LABORATORY

H2M LABS, INC.

Sample Receipt Checklist

KEY-URS 064

Client Name KEY-URS

Date and Time Received:

7/1/2009 4:15:00 PM

Work Order Number 0907457

Received by

MJMa

Checklist completed by

Matt Mc
Signature

7/1/09
Date

Reviewed by

JA
Initials

7/2/09
Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

KEY-URS064 A8

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 7/7/09
SDG #: KEY-URS067

For Sample(s):

DGP-295 25-30

DGP-296 30-35

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. Lab-fortified blanks were analyzed and indicate good method efficiency. All compounds were within QC limits, with the exception of ethylbenzene and xylene, total in the medium level LFB which recovered at 73% and 72%, respectively.

Sample DGP-295 25-30 was initially analyzed at a 1:5 dilution due to concentration levels of targeted analytes above the calibration range. This sample, as well as DGP-296 30-35, was reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

Sample DGP-296 30-35 had a high surrogate recovery for 4-bromofluorobenzene. All surrogate recoveries were acceptable in the medium level.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 28, 2009
Date Revised: August 13, 2009

*
*

Joann M. Slavin
Senior Vice President

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VBLK070809	73	76	70		0
02	LFB070809	74	76	69		0
03	DGP-296 30-35	77	98	342 *		1
04	VBLK071709	71	58	57		0
05	LFB071709	67	57	56		0
06	DGP-295 25-30	68	62	75		0

QC Limit

SMC1 DCA = 1,2-Dichloroethane-d4 (33-150)
 SMC2 TOL = Toluene-d8 (43-157)
 SMC3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS067
Sample ID LFB071509M Level: (low/med) MED
Column ID ZB-624 Column Diam .18
Inst. ID HP5971
Analysis Date: 07/15/09 14:06

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Benzene	6300	0	6500	103	71-142
Toluene	6300	0	6000	96	83-129
Ethylbenzene	6300	0	4500	73*	80-129
Xylene (total)	19000	0	14000	72*	79-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 2 out of 4 outside limits

COMMENTS: _____

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS
SAMPLE(S) RECEIVED: 7/7/09
SDG #: KEY-URS067

For Sample(s):

DGP-295 25-30

DGP-296 30-35

The above soil sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicates good method efficiency.

Both samples were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. The surrogate standards are diluted out in the dilution of sample DGP-295 25-30. Both sets of data are submitted.

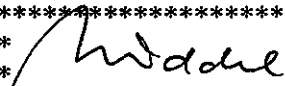
The surrogate standard nitrobenzene-d5 recovered above QC limits in the dilution of sample DGP-296 30-35 with 124% (upper control limit is 120%).

Areas for two internal standards were below the acceptance limit in the undiluted analysis of sample DGP-295 25-30 due to matrix interference. Areas were within limits in the dilution.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 27, 2009

Date Revised: August 13, 2009

*  *
* *

Ursula Middel
Technical Manager

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS067

EPA Sample No.(SSTD050##):

SSTD025

Date Analyzed:

07/11/09

Lab File ID (Standard):

A\C47882.D

Time Analyzed:

14:27

Instrument ID:

HP5972

GC Column:

R-5SILMS ID: .25

(mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD	108160	13.17	149857	15.88	127170	17.27
UPPER LIMIT	216320	13.67	299714	16.38	254340	17.77
LOWER LIMIT	54080	12.67	74929	15.38	63585	16.77
EPA SAMPLE NO.						
01 296(30-35)DL	91254	13.18	113240	15.86	103389	17.25
02 296(30-35)	125283	13.22	126592	15.87	114078	17.26
03 295(25-30)	49746*	13.32	120413	15.99	59971*	17.36

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS067 B13

**SDG NARRATIVE FOR DIELECTRIC FLUIDS/
PETROLEUM HYDROCARBONS
SAMPLE(S) RECEIVED: 7/7/09
SDG #: KEY-URS067**

For Sample(s):

DGP-295 25-30
DGP-296 30-35

The above soil sample(s) was/ were analyzed for dielectric fluids and petroleum hydrocarbons following **modified** EPA method 8100. The samples were analyzed by GC/MS.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

Multipoint calibrations were performed for low viscosity Polybutene (LVP). Consistency of response on the days of analyses was verified with continuous calibration verifications ("CCV"). Single point calibrations were performed with the petroleum hydrocarbon standard that most resembled the fingerprint observed in the samples.

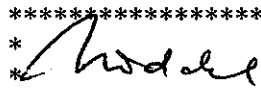
Fuel 2 best matched the pattern found in the samples. The depletion of the straight chain hydrocarbons indicates weathering, and the results on the report are flagged with the qualifier "X".

Some **additional** peaks were found in the samples in the later portion of the pattern that may be due to PNAs. They are included in the reported values.

No matrix spike/matrix spike duplicate was requested, but a lab-fortified blank (LFB) was analyzed. LVP was used for spiking. The recovery indicates good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 27, 2009

*  *

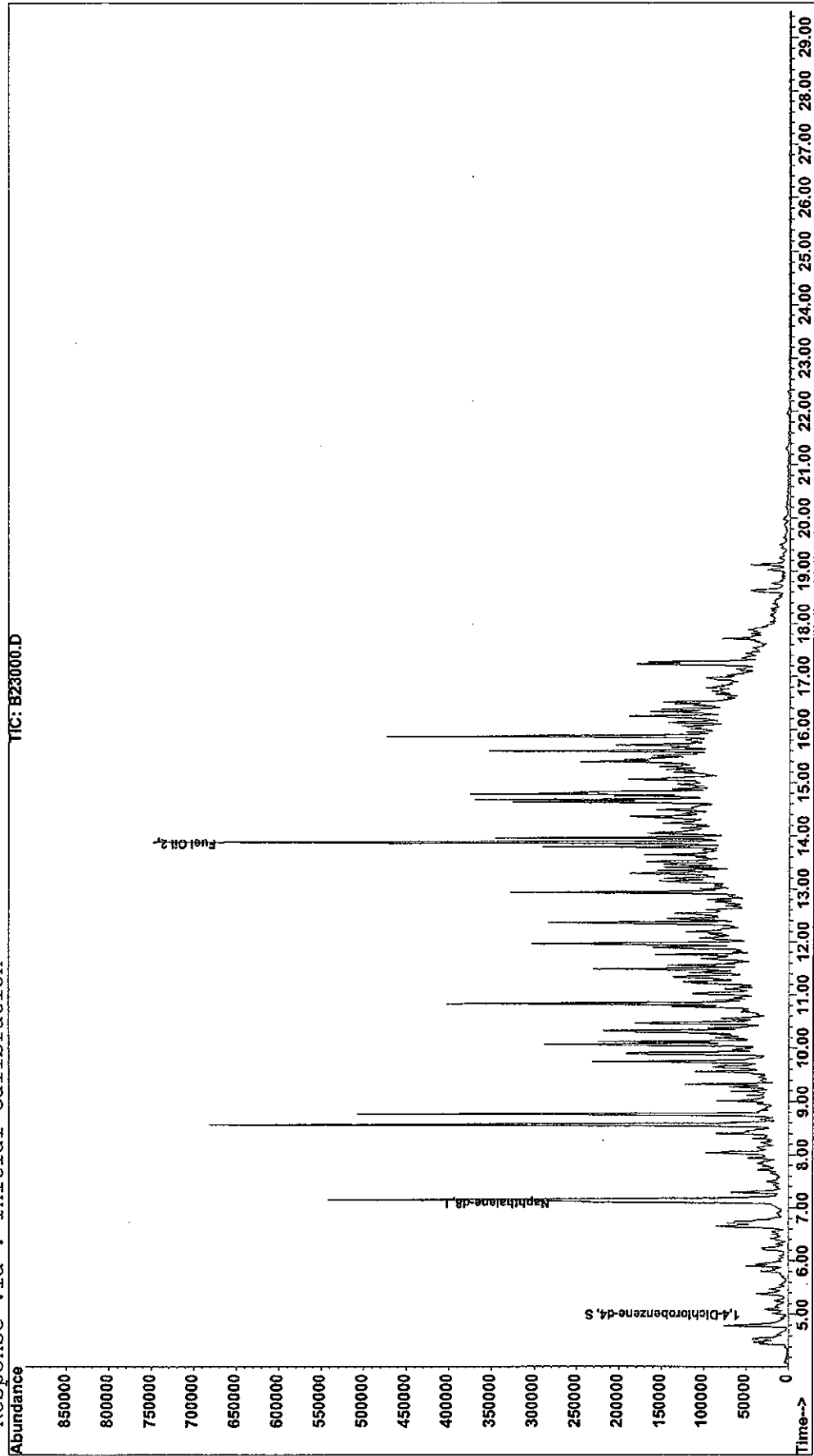
Ursula Middel
Technical Manager

KEY-URS067 S12

Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\JUL09\071109A\B23000.D Vial: 10
 Acq On : 11 Jul 2009 21:24 Operator: BG
 Sample : 0907601-001B Inst : H5970B
 Misc : KEY-URS067, DGP-295-25-30DL, SOIL, DL,, 1:50 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Jul 28 18:50 19109
 Quant Results File: DF_0623.RES

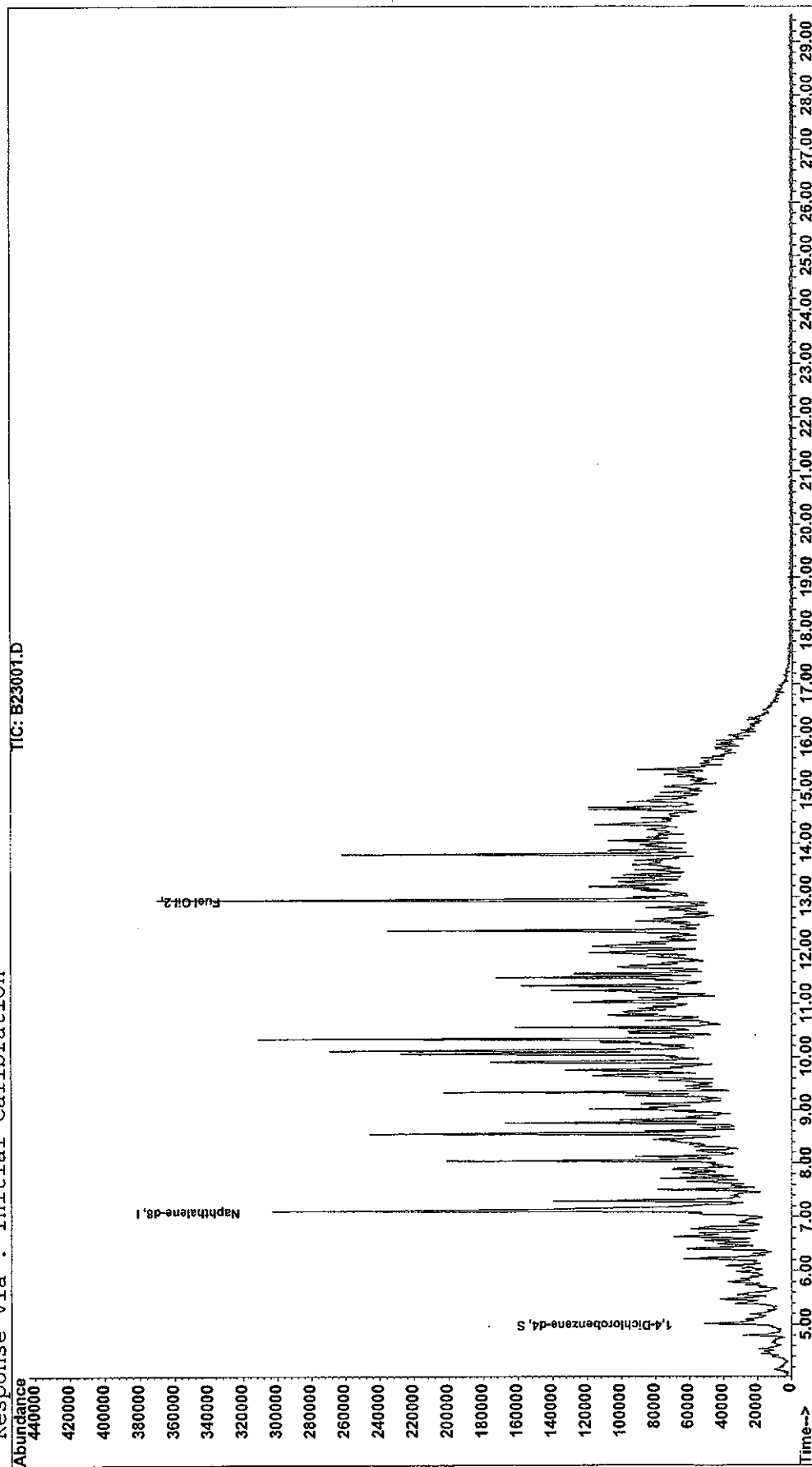
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Tue Jul 28 14:34:51 2009
 Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\JUL09\071109A\B23001.D Vial: 11
 Acq On : 11 Jul 2009 22:02 Operator: BG
 Sample : 0907601-002B Inst : H5970B
 Misc : KEY-URS067, DGP-296-30-35DL, SOIL, DL,, 1:20 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Jul 14 19:01 19109 Quant Results File: DF_0623.RES

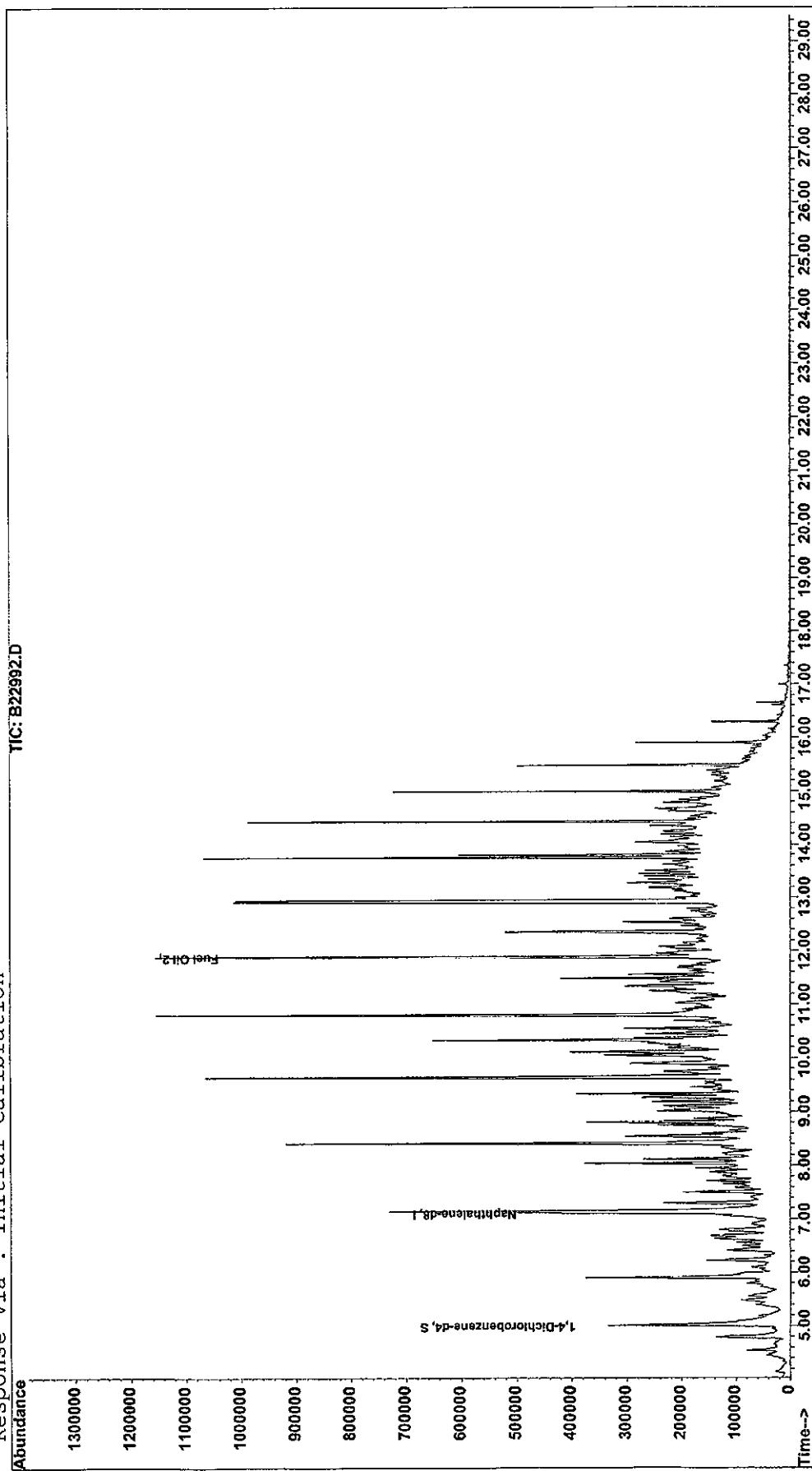
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Mon Jul 13 19:04:40 2009
 Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\JUL09\071109A\B22992.D Vial: 3
 Acq On : 11 Jul 2009 16:25 Operator: BG
 Sample : SSTD2500-FUEL2 Inst : H5970B
 Misc : '','CCV',' Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Jul 13 19:03 19109 Quant Results File: DF_0623.RES

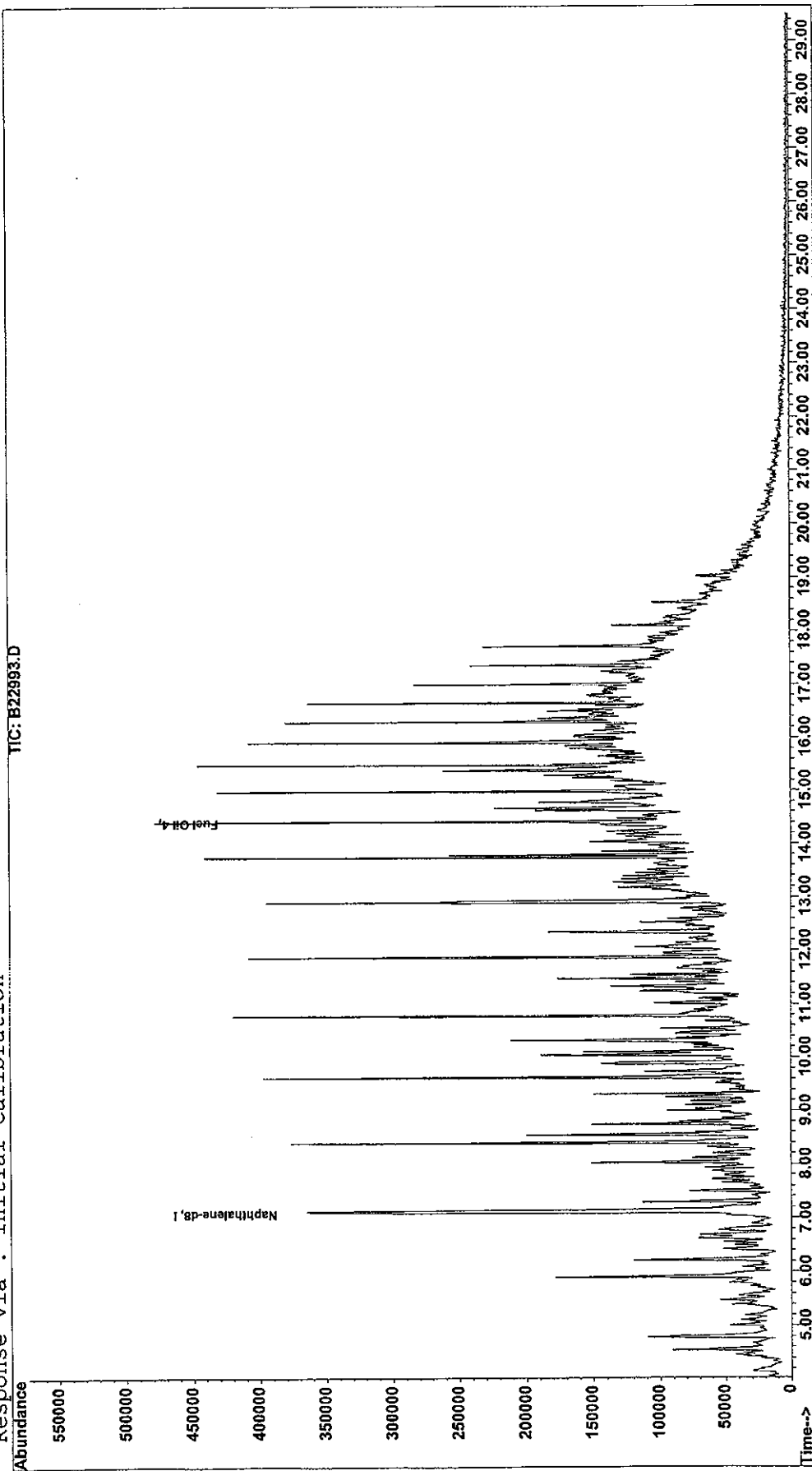
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Mon Jul 13 19:04:40 2009
 Response via : Initial Calibration



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\JUL09\071109A\B22993.D Vial: 4
Acq On : 11 Jul 2009 17:03 Operator: BG
Sample : SST2500 FUEL4 Inst : H5970B
Misc : 'CCV' Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Time: Jul 13 19:04 19109
Quant Results File: DF_0623.RES

Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
Title : CLP BNA Calibration
Last Update : Mon Jul 13 19:04:40 2009
Response via : Initial Calibration



2505

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd, Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

NAME/NUMBER
National Grid MGP PDI
Hempstead, NY

11175065.00011

SAMPLERS: (signature)/Client

Megan Dascal / Megan Dascal
VR5 Corp.

DELIVERABLES:

TURNAROUND TIME:[illegible]

Relinquished by: (Signature)

[Signature]

Revised by: (Signature)

1/27/2018

Relinquished by: (Signature)

Relinquished by: (Signature)

Polymers 2021, 13, 2209

Received by: (Signature)

Dr. David

Received by: (Signature)

Watt 11

Received by: (Signature)

Received by: (Signature)

Location:

Date	Time
------	------

03.150/40

Date	Time
------	------

Date 7/7/09 14:24

Date	Time
------	------

Date	Time
------	------

Other

LABORATORY USE ONLY

Samples were:

Sample Labels and

**Sample Labels and
COC Records VOA**

Eynaldin®
COOL RELEASE™ T-SHIRT

COC Tape was:

1. Present on outer package: Y or N

2. Unbroken on outer package: Y or N

Y or N
S. Was record preserved or compiled upon sampling receipt.

WHITE COPY OF ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

**SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 7/10/09
SDG #: KEY-URS068**

For Sample(s):

DGP-304 25-30

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

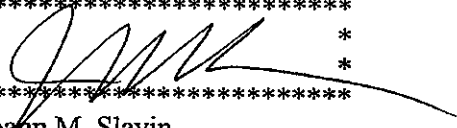
All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and indicates good method efficiency.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: July 28, 2009

*
*
*


Joann M. Slavin
Senior Vice President

KEY-URS068 S18

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE(S) RECEIVED: 7/10/09 & 7/13/09

SDG #: KEY-URS068

For Sample(s):

DGP-304 25-30	HISS-07-SE	BSS-03
HISS-07	HISS-07-SW	BSS-04
HISS-07-NE	BSS-01	BSS-05
HISS-07-NW	BSS-02	

The above soil sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted, but a lab fortified blank was analyzed. All recoveries were within the Q. C. limits.

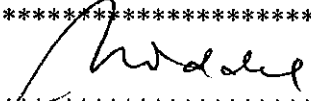
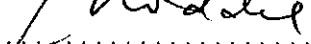
Recoveries for the surrogate 4-terphenyl-d14 were above Q. C. limits in three samples, and internal standard areas were below the limits for one or two internal standards in four samples due to matrix interference.

Five samples were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted.

All internal standard areas were within limits in the dilutions, but the surrogate standards are diluted out in three dilutions, and no recoveries were reportable for those dilutions.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 3, 2009

*  *
*  *

Ursula Middel
Technical Manager

KEY-URS068 S19

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.

Contract: H2M LABS, INC.

Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS068

Instrument ID: HP5973N Calibration Dates: 7/20/2009 7/20/2009

Heated Purge: (Y/N) N Calibration Times: 12:16 14:52

GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SSTD005= N32491.D SSTD010= N32492.D SSTD025= N32490.D SSTD040= N32493.D SSTD060= N32494.D											
SSTD080= N32495.D		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6				
COMPOUND								RRF	RSD	%	R ²
4-Nitroaniline		0.3281730	0.3344066	0.3613094	0.3456027	0.3506005		0.344	3.8		
4,6-Dinitro-2-methylphenol		0.1237760	0.1408494	0.1625893	0.1618407	0.1648033		0.151	11.9		
N-Nitrosodiphenylamine	*	0.7396945	0.7161435	0.7183641	0.7606264	0.7296104	0.7050482	0.728	2.7	*	
1,2-Diphenylhydrazine		0.7961280	0.7651992	0.7675162	0.8143942	0.7719553	0.7527643	0.778	2.9		
4-Bromophenyl-phenylether		0.2558710	0.2431341	0.249657	0.2598136	0.2473591	0.2374682	0.249	3.3		
Hexachlorobenzene		0.2757509	0.2645555	0.2667194	0.2727277	0.2586018	0.2485063	0.265	4.1		
Pentachlorophenol	*	0.1353108	0.1607045	0.1766707	0.1736594	0.1682471		0.163	10.2	*	
Phenanthrene		1.2426679	1.1917707	1.1894049	1.2419580	1.1689062	1.1426122	1.196	3.3		
Anthracene		1.2600383	1.2043081	1.2062889	1.2564681	1.1733615	1.1165206	1.203	4.5		
Carbazole		1.1435264	1.1225266	1.1294967	1.1981107	1.1274981	1.1014998	1.137	2.9		
Di-n-butyl phthalate		1.4313950	1.3742966	1.3908264	1.4681990	1.3546952	1.2849856	1.384	4.6		
Fluoranthene	*	1.2878376	1.2287574	1.22396	1.2870648	1.1783772	1.1189579	1.221	5.3	*	
Pyrene		1.3073228	1.2396288	1.2585064	1.2914586	1.2951161	1.3696576	1.294	3.5		
Butyl benzyl phthalate		0.5854776	0.5586975	0.5717333	0.5970286	0.5814021	0.5957604	0.582	2.5		
3,3'-Dichlorobenzidine		0.4113102	0.3860972	0.4142698	0.4127978	0.4008146	0.4038438	0.405	2.6		
Benzo(a)anthracene		1.2001457	1.1244735	1.1462199	1.1528074	1.1216958	1.1661548	1.152	2.5		
Chrysene		1.0519948	0.9979700	0.9958287	1.0297933	1.0097050	1.0542898	1.023	2.6		
Bis(2-ethylhexyl)phthalate		0.8320659	0.7841381	0.7873549	0.7980515	0.7655495	0.7794908	0.791	2.9		
Di-n-octyl phthalate	*	1.5278687	1.4446347	1.4210286	1.4448236	1.3095332	1.2419498	1.398	7.4	*	
Benzo(b)fluoranthene		1.3716488	1.2439381	1.2968789	1.4461036	1.2383857	1.2461547	1.307	6.5		
Benzo(k)fluoranthene		1.1082872	1.1082653	1.0161107	0.8882401	0.8924026	0.7366183	0.958	15.2		
Benzo(a)pyrene	*	1.1213370	1.0659764	1.0805885	1.1113743	1.0550923	1.0062625	1.073	3.9	*	
Indeno(1,2,3-cd)pyrene		1.1881778	1.1526073	1.1739394	1.2281284	1.1602054	1.0884039	1.165	4.0		

FORM VI

SW8270C

KEY-URS068 B188

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLE(S) RECEIVED: 7/10/09 & 7/13/09
SDG #: KEY-URS068

For Sample(s):

HISS-03	BSS-02
HISS-03-NW	BSS-03
HISS-03-SW	BSS-04
HISS-03-W	BSS-05
HISS-07	HISS-14
HISS-07-NE	HISS-14-NE
HISS-07-NW	HISS-14-NW
HISS-07-SE	HISS-14-SE
HISS-07-SW	HISS-14-SW
BSS-01	

Sample(s) was/were received by H2M Labs, Inc. for arsenic and mercury metals analysis.

Samples were prepared and analyzed using EPA methods 6010B with a TJA 61E Trace ICP Instrument and 7471A with a Leeman HYDRA mercury analyzer.

Samples HISS-03 and HISS-07 were utilized for QC analysis and reporting.

Due to instrument problems the samples were redigested and reanalyzed on 7/28/09 for arsenic. The reanalysis was utilized for arsenic reporting.

Spike analysis did not recover within 75-125% for arsenic and mercury. Since the sample values were greater than four times the spike concentrations, post spikes and data qualifiers were not required.

Duplicate analysis did not reproduce within acceptance ranges for arsenic. Arsenic data was reported flagged "*" on forms 1 and 6.

No other issues were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 3, 2009

*
*
*

Vincent Stancampiano
Vice President

KEY-URS068 S20

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO

HISS-03

Lab Name: H2M LABS, INC.

Contract:

Lab Code: 10478

Case No.

SAS No.:

SDG No.: KEY-URSO

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 84.0

% Solids for Duplicate: 83.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.8968		8.0159	B	159.8	*	CV

H2M LABS, INC.

RE-DIGESTION

2/3

NAME:

DATE:

175
07/30/09

HG DIGESTIONS

LAB NO.	CLIENT ID	SAMPLE WEIGHT GRAMS	SAMPLE VOLUME MLS	FINAL VOLUME MLS	DILUTION FACTOR	SPIKE $\mu\text{g/L}$
0908041-002A	60-34064-071609 SD-005		100	100		
-003A	-071709- SD-006					
-004A	-007					
0908163-001A	-072209- SD-006					
-002A	-009					
-003A	-010					
-004A	-072309- SD-011					
-005A	-012					
-006A	-013					
0908301-001A	-014					
-002A	-015					
MB-32236	PBW					
MBI-32236	PBF					
0908412-001A	60-34064-072709- SD-016					
-001AD	-12P					
-001AS	-12S					1.0
-002A	-072809- SD-017					
-003A	-018					
MB-32238	PBS					
LC-32238	LCSS	0.60g				
0907190-002C	1155-03					
-002CD	-12P					
-002CS	-12S					1.0
0908281-001A	222222					
0908415-001A						

P 0039

Re-Digestion/Re-Analysis

Folder: HG07309B

Page 6

Protocol: mercury

POST-RUN REPORT

Line	Conc.	Units	SD/RSD	1	2	3	4	5
=====								
*** Sample ID: 08412001AS				Seq: 58	15:54:46	30	Jul 09	HG
Hg	.933	ug/L	3223					
=====								
*** Sample ID: 08412002A				Seq: 59	15:56:24	30	Jul 09	HG
Hg	-.134	ug/L	-322					
=====								
*** Sample ID: 08412003A				Seq: 60	15:58:37	30	Jul 09	HG
Hg	-.042	ug/L	-18					
=====								
*** Sample ID: MB-32238				Seq: 61	16:00:55	30	Jul 09	HG
Hg	-.032	ug/L	15					
=====								
*** Sample ID: LCS-32238				Seq: 62	16:03:39	30	Jul 09	HG
Hg	1.31	ug/L	4491					
=====								
*** Sample ID: 07790002C				Seq: 63	16:05:21	30	Jul 09	HG
Hg	4.76	ug/L	15943					
=====								
*** Sample ID: 07790002CD				Seq: 64	16:07:19	30	Jul 09	HG
Hg	6.37	ug/L	21293					
=====								
*** Sample ID: 07790002CS				Seq: 65	16:09:58	30	Jul 09	HG
Hg	5.36	ug/L	17950					
=====								
*** Sample ID: 08281001A				Seq: 66	16:11:57	30	Jul 09	HG
Hg	.202	ug/L	793					
=====								
*** Sample ID: CCV6				Seq: 67	16:13:40	30	Jul 09	HG
Hg	4.28	ug/L	14355					
=====								
*** Sample ID: CCB6				Seq: 68	16:15:44	30	Jul 09	HG
Hg	-.094	ug/L	-188					
=====								

28.9%
RPD

KEY-URS068 M205

EXTERNAL CHAIN OF CUSTODY

PINK COPY - LABORATORY

7133

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid Hempstead MGP PDI

#11175065.00011

SAMPLERS: (signature)/Client **URS**

Jeffrey K. Harshman

DELIVERABLES:

TURNAROUND TIME:

DATE	TIME	MATRIX	FIELD I.D.	TO	VOA	BNA	PCB	↓	↑	↓	Metal	CN	LAB I.D. NO.	REMARKS:
7/11/09	1400	S	BSS-04	↓				X	X	X			0907839 - 004 ABL	
1	1410	S	BSS-05	↓				X	X	X			- 005 ABL	
	1420	S	BSS-01	↓				X	X	X			- 001 ABL	
	1425	S	BSS-02	↓				X	X	X			- 002 ABL	
✓	1430	S	BSS-03	↓				X	X	X			- 004 1003 ABL	
7/11/09	1530	S	H1SS-14	↓						X			- 006 B	
1	1535	S	H1SS-14-NW	↓						X			- 008	
	1540	S	H1SS-14-SW	↓						X			- 010	
	1545	S	H1SS-14-NE	↓						X			- 007	
✓	1550	S	H1SS-14-SE	↓						X			- 009 ✓	

Relinquished by: (Signature)

1161

Lebens- & A-2

Relinquished by: (Signature)

2

Ben F. York

Relinquished by: (Signature)

44

100

Responsible for: (Signature)

100

1000000

WHITE CO

W-2

4
4
4
4

WHITE COPY - ORIGINAL
KEY - CK\$0685

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 7/23/09
SDG #: KEY-URS070

For Sample(s):

DGP-298/31-34 DGP-309/35-40
DGP-299/23-25 DGP-310/25-30
DGP-300/33-35 DGP-310/35-40
DGP-309/25-30

The above sample(s) was/were analyzed for a select list of volatile organic analytes by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. Lab-fortified blanks were analyzed. All percent recoveries and RPD's were met except for a 75% recovery for toluene (lower limit 83%), a 68% recovery for ethylbenzene (lower limit 80%) and a 69% recovery for total xylene (lower limit 79%) in the medium level LFB 080309.

All samples were initially analyzed at a 1:5 dilution. Samples DGP-300/33-35 and DGP-310/25-30 were reanalyzed at an additional dilution due to concentration levels of targeted analytes above the calibration range. Samples DGP-298/31-34 and DGP-309/25-30 were reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. The surrogate standard Bromofluorobenzene had high recoveries in samples DGP-309/25-30 and DGP-310/25-30. All surrogate recoveries were acceptable in the dilutions of these samples. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 11, 2009
Revised Date: September 3, 2009

*
*
*

Joann M. Slavin
Senior Vice President

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS070
 Lab File ID: 09\G2246.D BFB Injection Date: 07/28/09
 Instrument ID: HP5972-2 BFB Injection Time: 12:04
 GC Column: Rtx-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.8
75	30.0 - 60.0% of mass 95	58.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	Greater than 50.0% of mass 95	70.5
175	5.0 - 9.0% of mass 174	5.3 (7.6)1
176	95.0 - 101.0% of mass 174	67.8 (96.1)1
177	5.0 - 9.0% of mass 176	4.2 (6.1)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	09\G2248.D	07/28/09	13:07
02	VLK072809	VLK072809	09\G2249.D	07/28/09	13:41
03	LFB072809	LFB072809	09\G2250.D	07/28/09	14:12
04	DGP-298/31-34	0908257-001A	09\G2253.D	07/28/09	15:44
05	DGP-299/23-25	0908257-002A	09\G2254.D	07/28/09	16:14
06	DGP-300/33-35	0908257-003A	09\G2255.D	07/28/09	16:45
07	DGP-309/25-30	0908257-004A	09\G2256.D	07/28/09	17:15
08	DGP-310/25-30	0908257-006A	09\G2258.D	07/28/09	18:17
09	DGP-310/35-40	0908257-007A	09\G2259.D	07/28/09	18:47
10	DGP-300/33-35DL	0908257-003ADL	09\G2268.D	07/28/09	23:22
11	DGP-309/35-40	0908257-005A	09\G2269.D	07/28/09	23:53

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VBLK072809	97	85	84		0
02	LFB072809	97	83	83		0
03	DGP-298/31-34	108	92	104		0
04	DGP-299/23-25	107	85	83		0
05	DGP-300/33-35	106	88	90		0
06	DGP-309/25-30	106	94	159 *		1
07	DGP-310/25-30	105	91	146 *		1
08	DGP-310/35-40	111	90	129		0
09	DGP-300/33-35DL	107	88	88		0
10	DGP-309/35-40	109	86	89		0
11	VBLK073109	111	82	88		0
12	LFB073109	108	83	88		0
13	DGP-310/25-30DL	118	86	120		0

QC Limit

SMC1 DCA = 1,2-Dichloroethane-d4 (33-150)
 SMC2 TOL = Toluene-d8 (43-157)
 SMC3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A
SYSTEM MONITORING SPIKE RECOVERY

Lab Name: H2M LABS, INC. Contract: _____
Lab Code: 10478 Case No.: KEY-UR SAS No.: _____ SDG No.: KEY-URS070
Sample ID LFB080309M Level: (low/med) MED
Column ID ZB-624 Column Diam .18
Inst. ID HP5971 Init. Calib. Date(s): 08/05/09 19:53
Analysis Date: 08/03/09 12:47 08/05/09 22:16

COMPOUND	SPIKE ADDED (µg/Kg)	SAMPLE CONCENTRATION (µg/Kg)	SPIKE CONCENTRATION (µg/Kg)	SPIKE % REC #	QC. LIMITS REC.
Benzene	6300	0	5300	85	71-142
Toluene	6300	0	4700	75*	83-129
Ethylbenzene	6300	0	4200	68*	80-129
Xylene (total)	19000	0	13000	69*	79-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 3 out of 4 outside limits

COMMENTS: _____

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: H2M LABS, INC. Contract: _____
 Lab Code: 10478 Case No.: KEY-URS SAS No.: _____ SDG No.: KEY-URS070
 Lab File ID: A\A65866.D BFB Injection Date: 08/03/09
 Instrument ID: HP5971 BFB Injection Time: 10:37
 GC Column: ZB-624 ID: .18 (mm)

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	40.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	78.0
175	5.0 - 9.0% of mass 174	5.7 (7.3)1
176	95.0 - 101.0% of mass 174	76.2 (97.7)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AVA65867.D	08/03/09	10:51
02	VLK080309M	VLK080309M	AVA65869.D	08/03/09	11:49
03	LFB080309M	LFB080309M	AVA65871.D	08/03/09	12:47
04	DGP-298/31-34DL	0908257-001ADL	AVA65872.D	08/03/09	13:16

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE(S) RECEIVED: 7/23/09

SDG #: KEY-URS070

For Sample(s):

DGP-298/31-34	DGP-309/35-40
DGP-299/23-25	DGP-310/25-30
DGP-300/33-35	DGP-310/35-40
DGP-309/25-30	

The above soil sample(s) was/were analyzed for a select list of semivolatile organic analytes (PNAs) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, unless discussed below, and no problems were encountered with sample analysis. The following should be noted:

No matrix spike/matrix spike duplicate was submitted. A lab fortified blank was analyzed and results indicate good method efficiency. (All recoveries were within the Q. C. limits.)

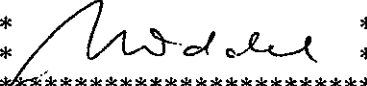
In four samples, the recoveries for the surrogate standard nitrobenzene-d5 were above Q. C. limits. Also, due to matrix interference, areas for the internal standard perylene-d12 were too low in three samples.

All samples were reanalyzed at dilutions to keep the concentration of targeted analytes within the calibration range. Both sets of data are reported. All Q. C. data in the dilutions for surrogates and internal standards met acceptance limits.

No surrogate recovery is reported for three dilutions, because the surrogate compound was "diluted out", i. e. the resulting concentration was below the reportable level.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 6, 2009

*  *

Ursula Middel
Technical Manager

KEY-URS070 S11

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS070EPA Sample No.(SSTD050##): SSTD025

Date Analyzed:

07/28/09

Lab File ID (Standard):

A/C48116.D

Time Analyzed:

12:05

Instrument ID:

HP5972

GC Column:

R-5SILMS ID: .25

(mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD	435518	13.09	391113	15.82	384462	17.19
UPPER LIMIT	871036	13.59	782226	16.32	768924	17.69
LOWER LIMIT	217759	12.59	195557	15.32	192231	16.69
EPA SAMPLE NO.						
01 MB-32156	322588	13.08	292980	15.82	271586	17.20
02 LFB-32156	337498	13.08	306196	15.83	287240	17.20
03 298/31-34	259184	13.17	251266	15.88	111112*	17.21
04 299/23-25	386185	13.10	348057	15.80	256991	17.16
05 300/33-35	272846	13.16	317531	15.85	171150*	17.20
06 309/25-30	273554	13.20	311430	15.85	162235*	17.20

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS070 B11

**SDG NARRATIVE FOR DIELECTRIC FLUIDS/
PETROLEUM HYDROCARBONS**

SAMPLE(S) RECEIVED: 7/23/09

SDG #: KEY-URS070

For Sample(s):

DGP-309/35-40 DGP-310/25-30
DGP-309/25-30 DGP-310/35-40

The above soil sample(s) was/ were analyzed for dielectric fluids and petroleum hydrocarbons. by GC/MS.

All QC data and calibrations met the requirements of EPA method 8000, and no problems were encountered with sample analysis. The following should be noted:

Multipoint calibrations were performed for low viscosity Polybutene (LVP) to verify linearity. Consistency of response on the days of analyses was confirmed with a continuous calibration verifications ("CCV"). Single point calibrations were performed for additional petroleum hydrocarbon standards that most resembled the fingerprint observed in the samples.

No matrix spike/matrix spike duplicate was requested, but a lab-fortified blank (LFB) was analyzed. LVP was used for spiking. The recovery indicates good method efficiency.

Fuel 2 best matched the pattern found in the samples DGP-309/25-30, DGP-309/35-40, and DGP-310/35-40. The depletion of the straight chain hydrocarbons indicates weathering, and the results on the report are flagged with the qualifier "X". **Additional** peaks were found in the samples that are believed to be due to polynuclear aromatics (PNAs). They are included in the reported values for Fuel 2. This is indicated by the qualifier "Y".

310

None of the petroleum hydrocarbon standards injected with the samples on 8/4/09 gave a good match with the pattern in sample DGP-309/25-30. A better match was found with Sun 6, which had not been injected on the day of analysis. Sun 6 was analyzed at a later date on 8/11/09 for quantification of the sample, and the sample was also re-injected. Note that no more sample material was available from the undiluted extract for reanalysis, and a 1:2 dilution had to be used for re-injection that had been prepared in anticipation of a high concentration. Sample DGP-310/25-30 was also flagged with "Y" for additional suspected PNAs

9/3/09

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: August 13, 2009
Date Revised: September 1, 2009

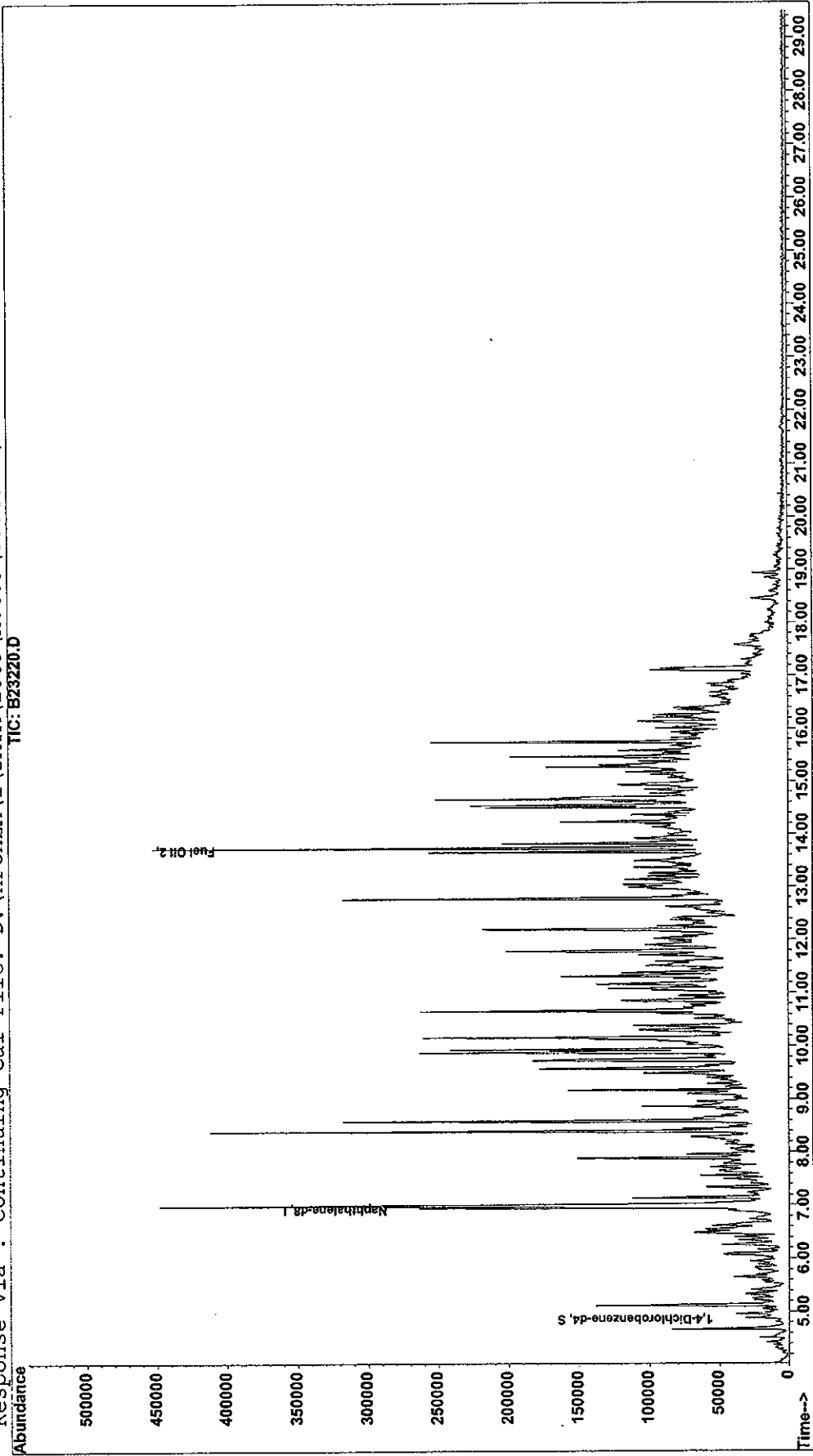
* *Ursula Middel* *
* *Ursula Middel* *

Ursula Middel
Technical Manager

Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23220.D Vial: 13
 Acq On : 4 Aug 2009 19:27 Operator: CD
 Sample : 0908257-004B Inst : H5970B
 Misc : KEY-URS070, DGP-309/25-30DL, SOIL, DL, 1:50 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 5 16:17 19109 Quant Results File: DF_0623.RES

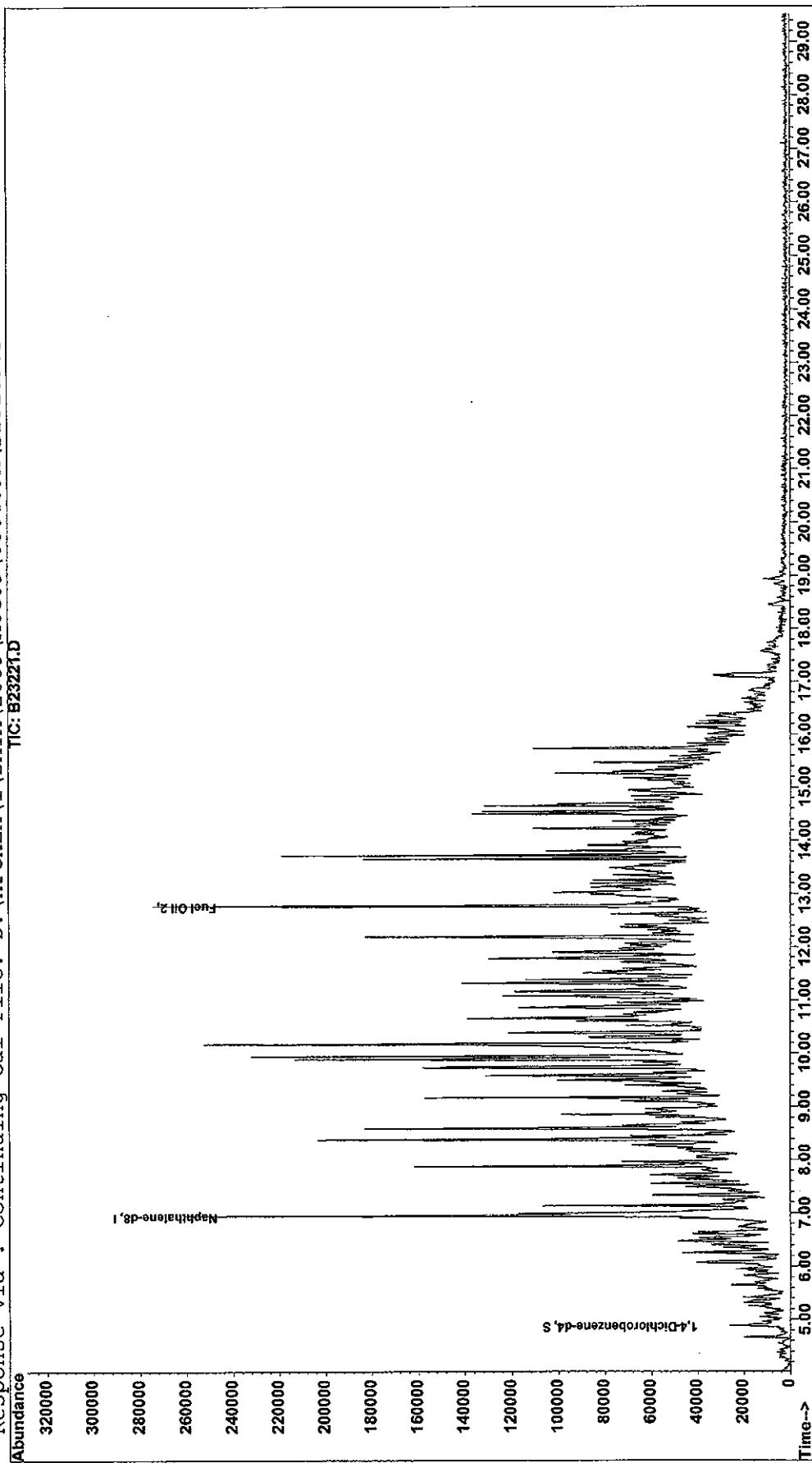
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Fri Aug 07 12:30:46 2009
 Response via : Continuing Cal File: D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23209.D



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23221.D Vial: 14
 Acq On : 4 Aug 2009 20:04 Operator: CD
 Sample : 0908257-005B Inst : H5970B
 Misc : KEY-URS070, DGP-309/35-40DI, SOIL, DL,, 1:50 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 5 16:18 19109 Quant Results File: DF_0623.RES

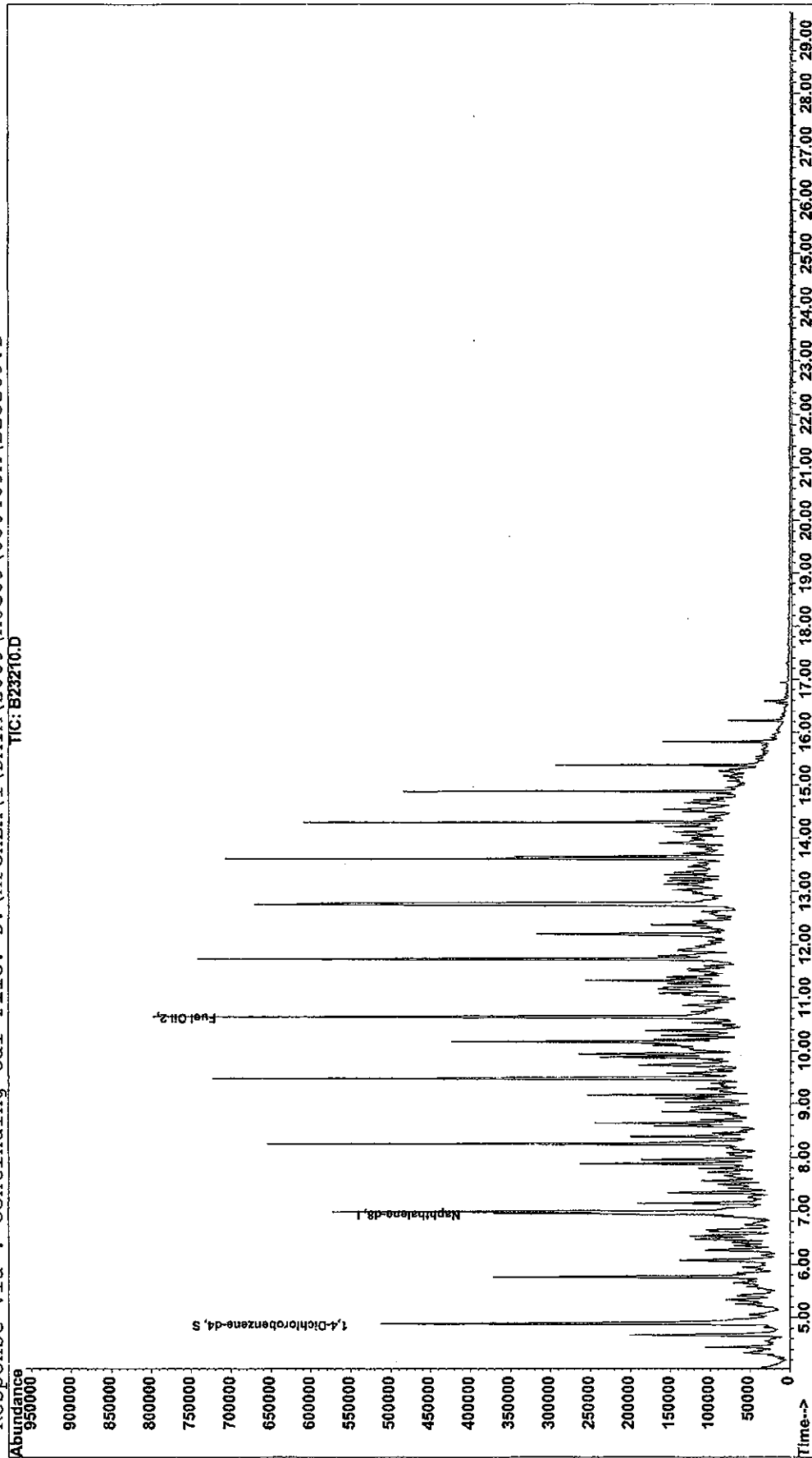
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Fri Aug 07 12:30:46 2009
 Response via : Continuing Cal File: D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23209.D



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23210.D Vial: 3
 Acq On : 4 Aug 2009 13:13 Operator: CD
 Sample : SSTP2500 FUEL 2 Inst : H5970B
 Misc : ',,ICAL,, Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 4 16:42 19109 Quant Results File: DF_0623.RES

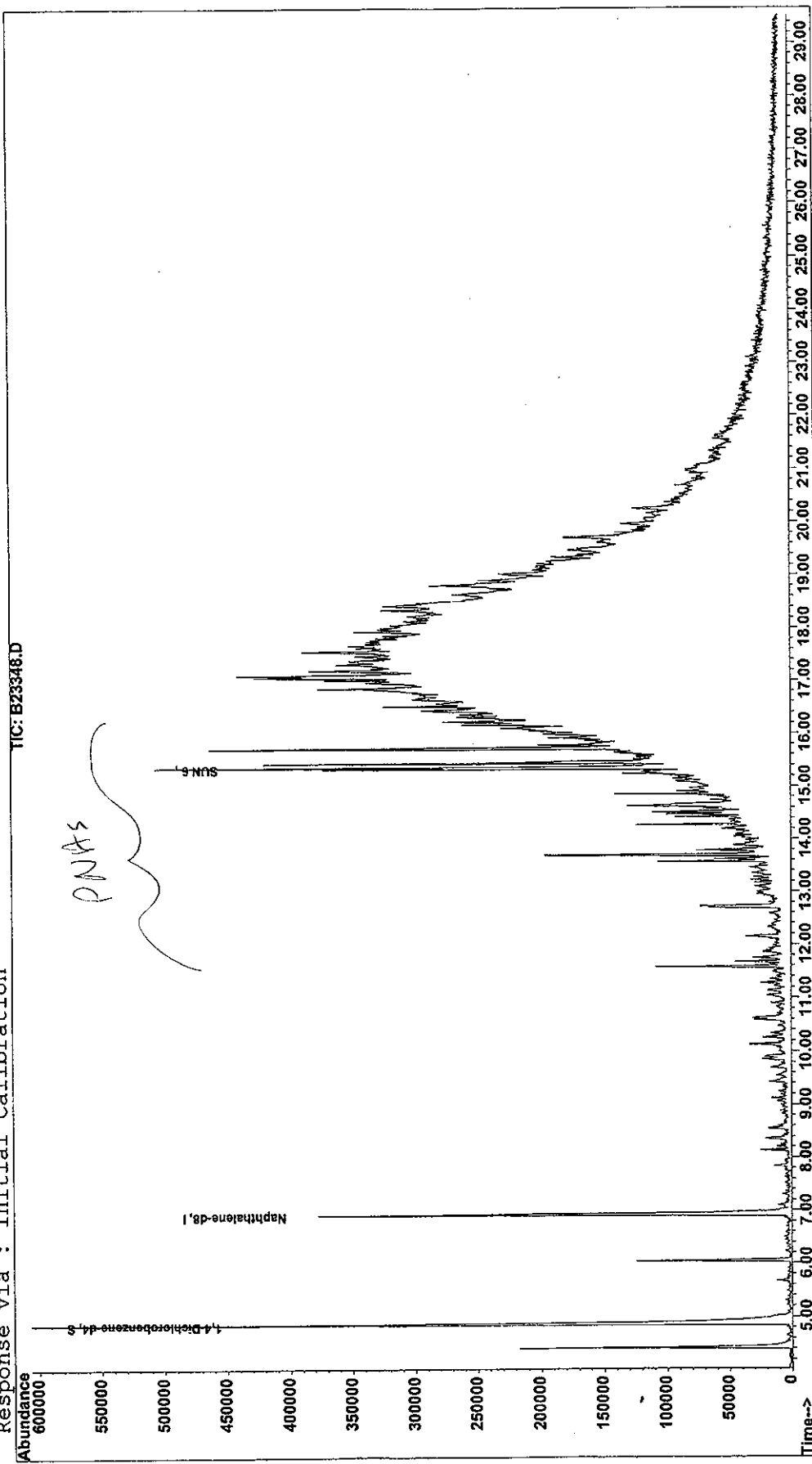
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Fri Aug 07 12:30:46 2009
 Response via : Continuing Cal File: D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23209.D



Quantitation Report

Data File : D:\HPCHEM\1\DATA\2009\AUG09\081109A\B23348.D Vial: 14
 Acq On : 12 Aug 2009 00:06 Operator: CD
 Sample : 0908257-006B Inst : H5970B
 Misc : KEY-URS070, DGP-310.(25-30), SOIL, SAMP,, 1:2 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 12 15:40 19109 Quant Results File: DF_0623.RES

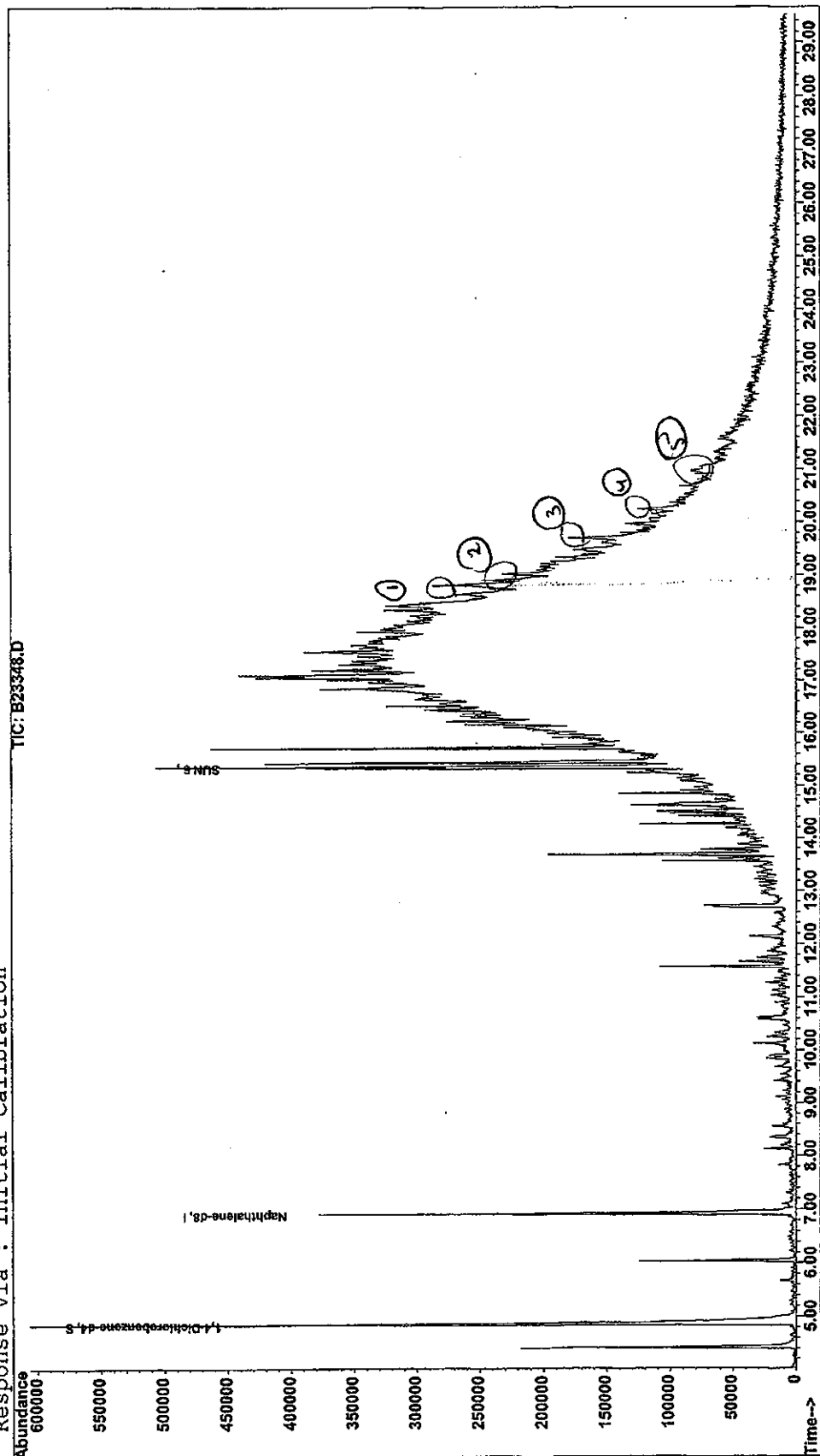
Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Wed Aug 12 12:00:00 2009
 Response via : Initial Calibration



Quantitation Report

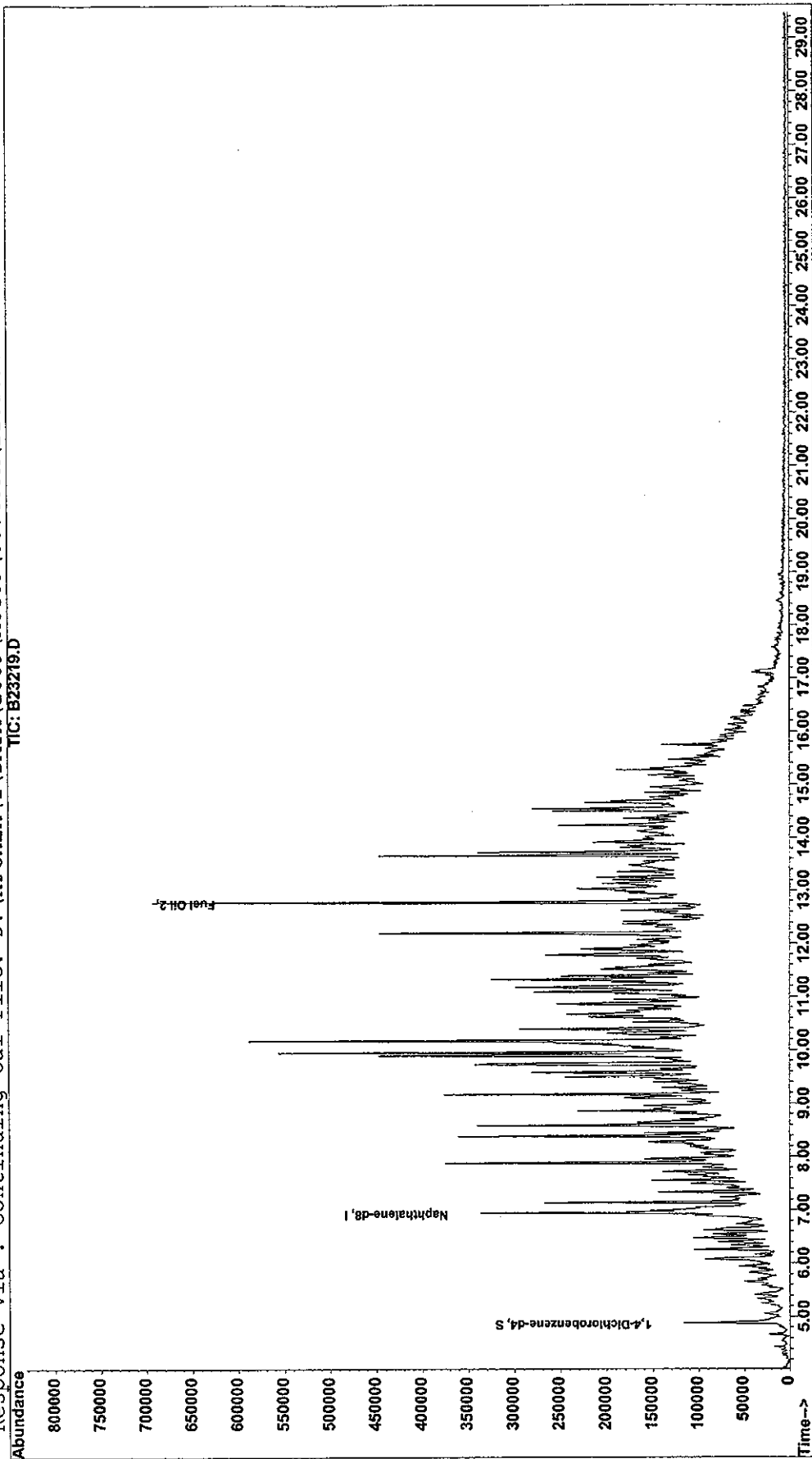
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 Acq On : 12 Aug 2009 00:06 Operator: CD
 Sample : 0908257-006B Inst : H5970B
 Misc : KEY-URS070, DGP-310 (25-30), SOIL, SAMP, 1:2 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 12 15:40 19109 Quant Results File: DF_0623.RES

Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Wed Aug 12 12:00:00 2009
 Response via : Initial Calibration



Quantitation Report

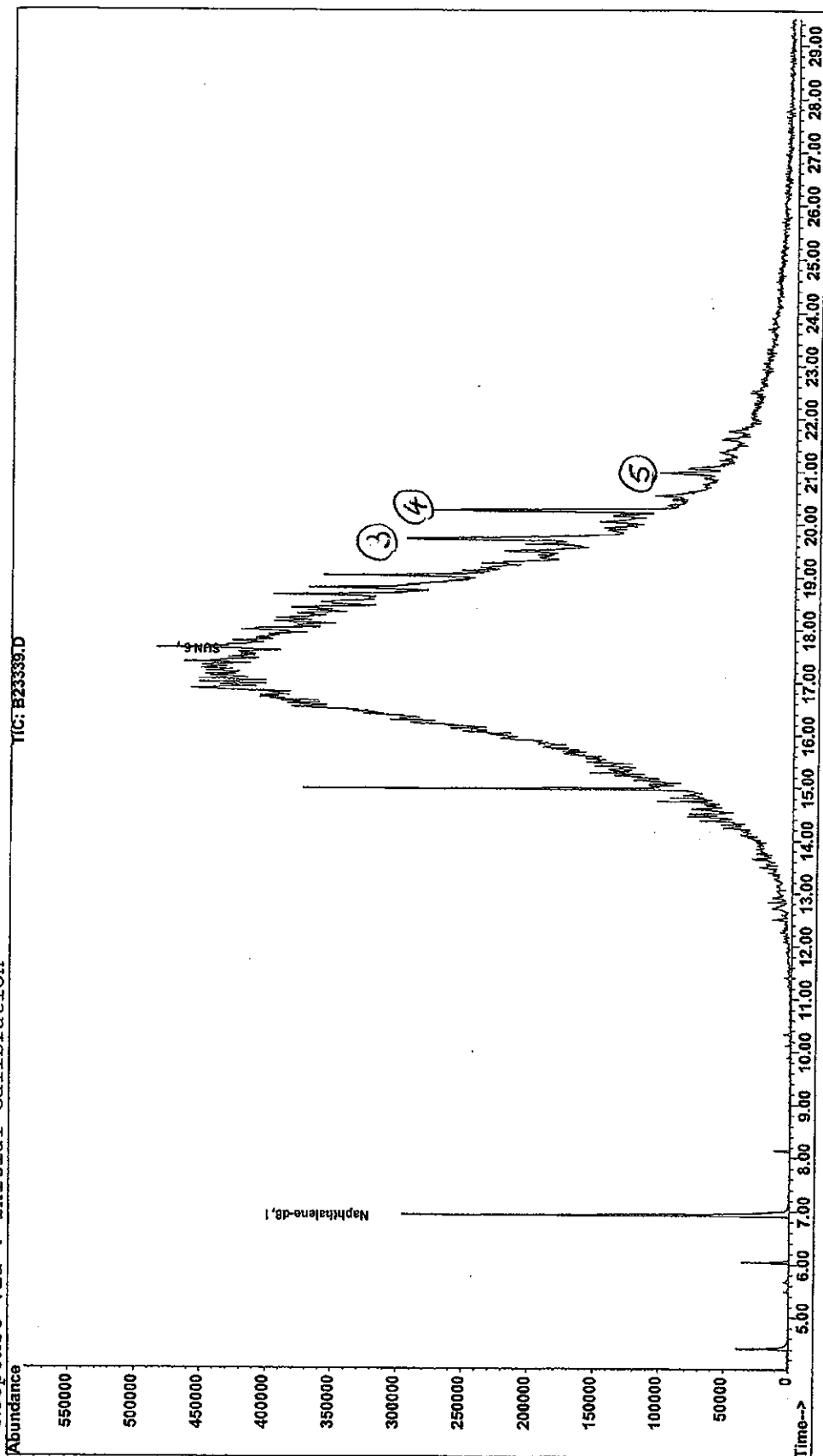
Data File : D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23219.D Vial: 12
 Acq On : 4 Aug 2009 18:50 Operator: CD
 Sample : 0908257-007B Inst : H5970B
 Misc : KEY-URS070, DGP-310/35-40DE, SOIL, DL, 1:10 Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 5 16:16 19109 Quant Results File: DF_0623.RES
 Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Fri Aug 07 12:30:46 2009
 Response via : Continuing Cal File: D:\HPCHEM\1\DATA\2009\AUG09\080409A\B23209.D
 TIC: B23219.D



Quantitation Report

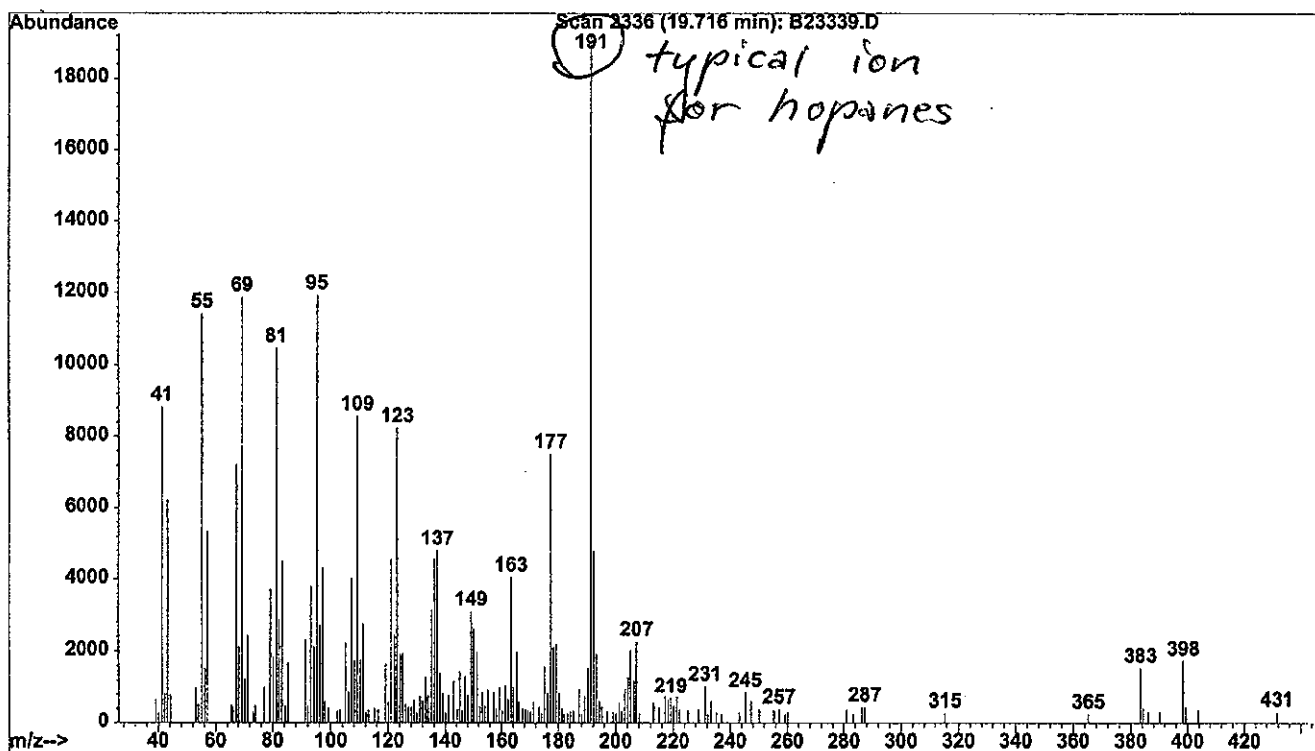
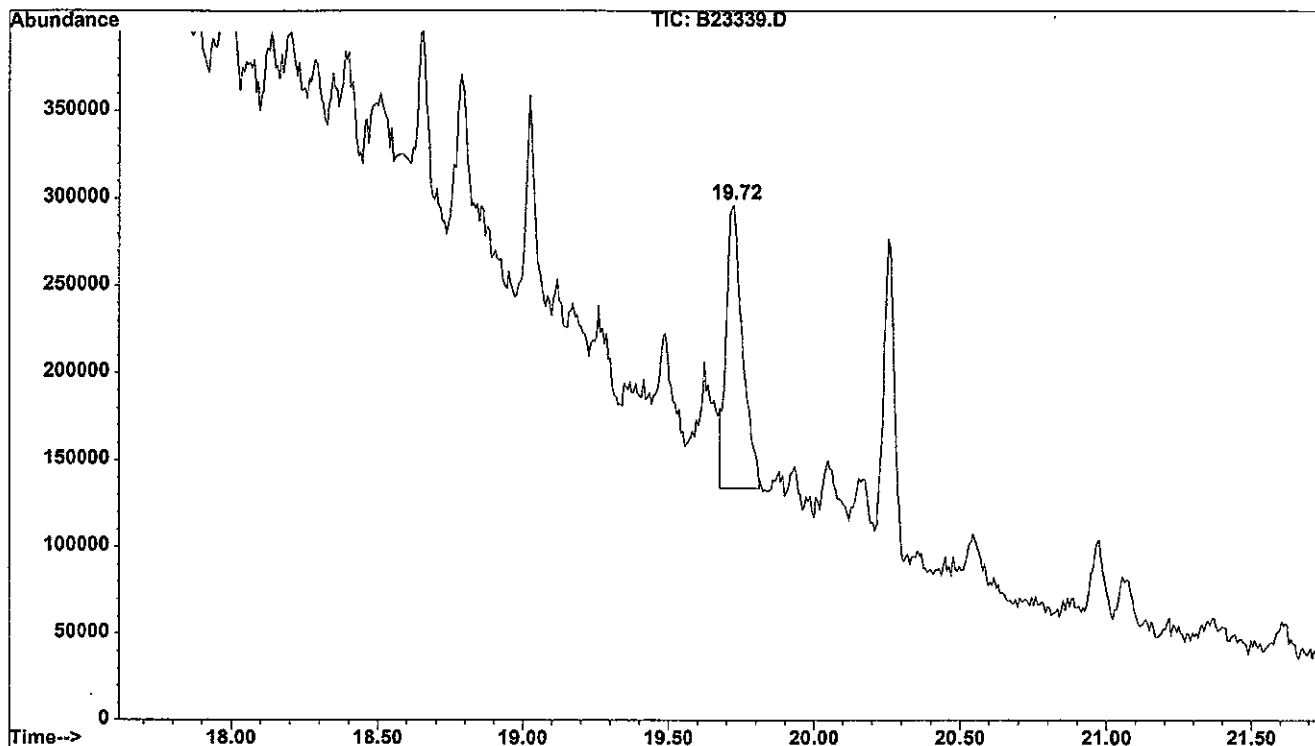
Data File : D:\HPCHEM\1\DATA\2009\AUG09\081109A\B23339.D Vial: 5
 Acq On : 11 Aug 2009 18:29 Operator: CD
 Sample : SST2500 SUN 6 Inst : H5970B
 Misc : ,,,ICAL,, Multiplr: 1.00
 MS Integration Params: LSCINT.P
 Quant Time: Aug 12 11:57 19109 Quant Results File: DF_0623.RES

Method : D:\HPCHEM\1\METHODS\2009\DF_0623.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Wed Aug 12 12:00:00 2009
 Response via : Initial Calibration



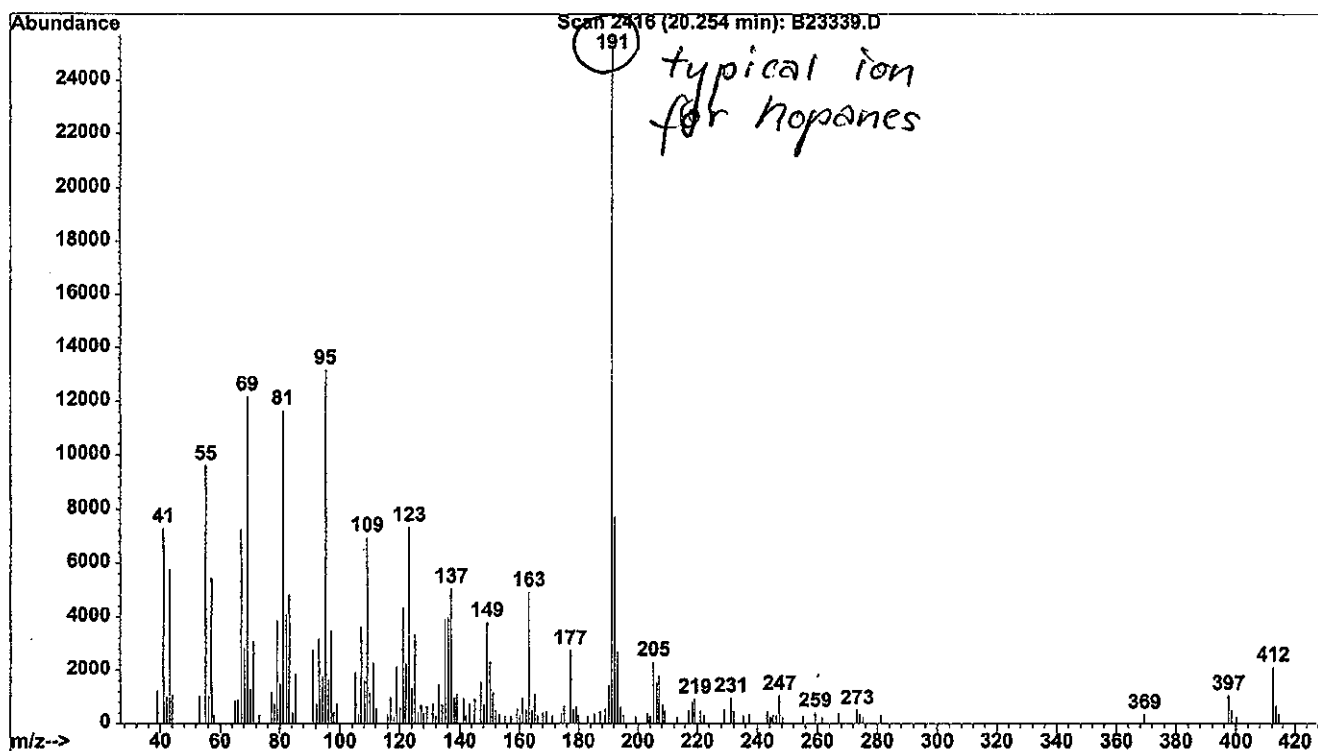
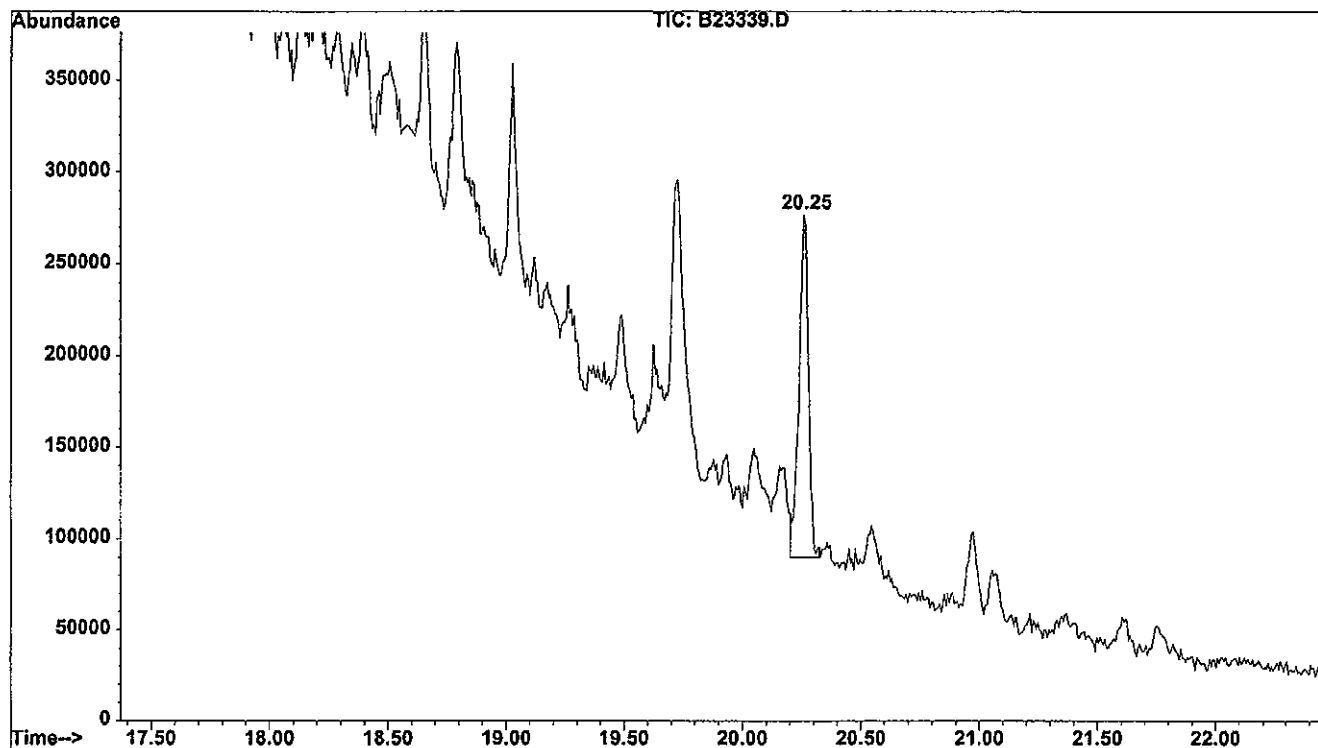
File : D:\HPCHEM\1\DATA\2009\AUG09\081109A\B23339.D
Operator : CD
Acquired : 11 Aug 2009 18:29 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: SSTD2500 SUN 6
Misc Info : ,,,ICAL,,
Vial Number: 5

3



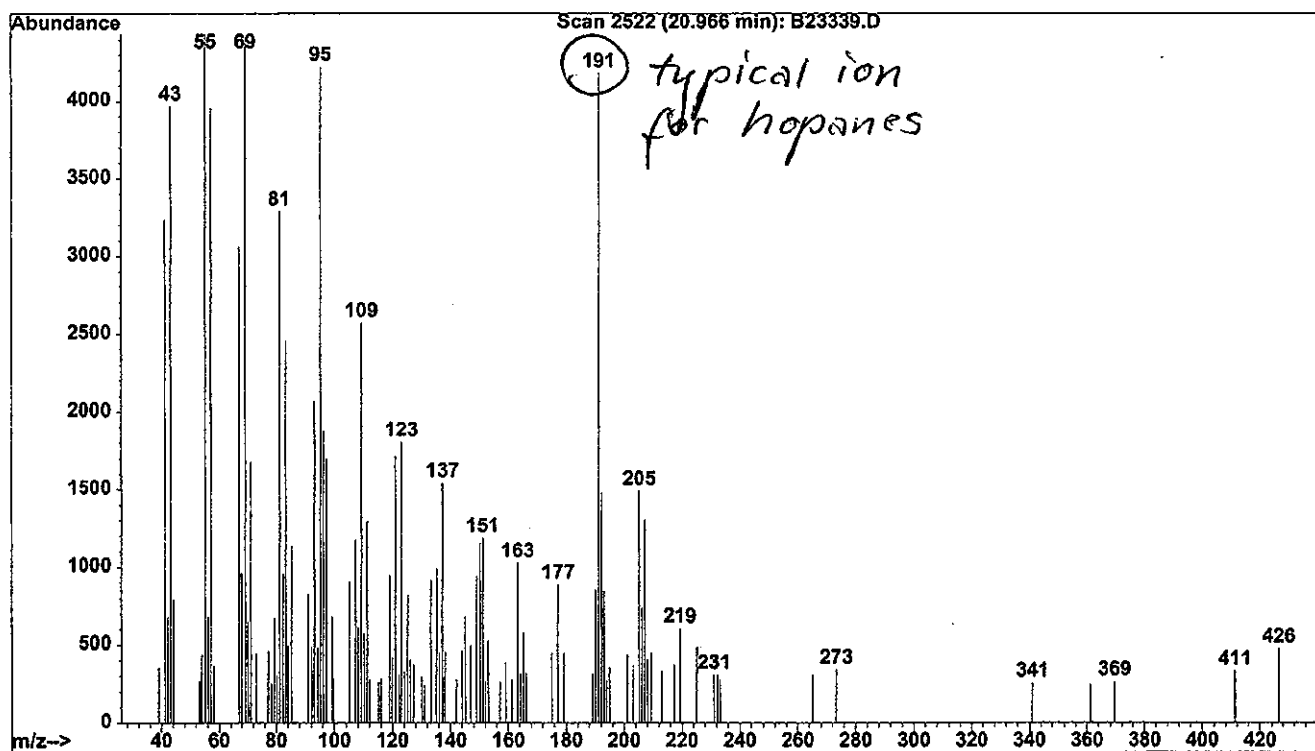
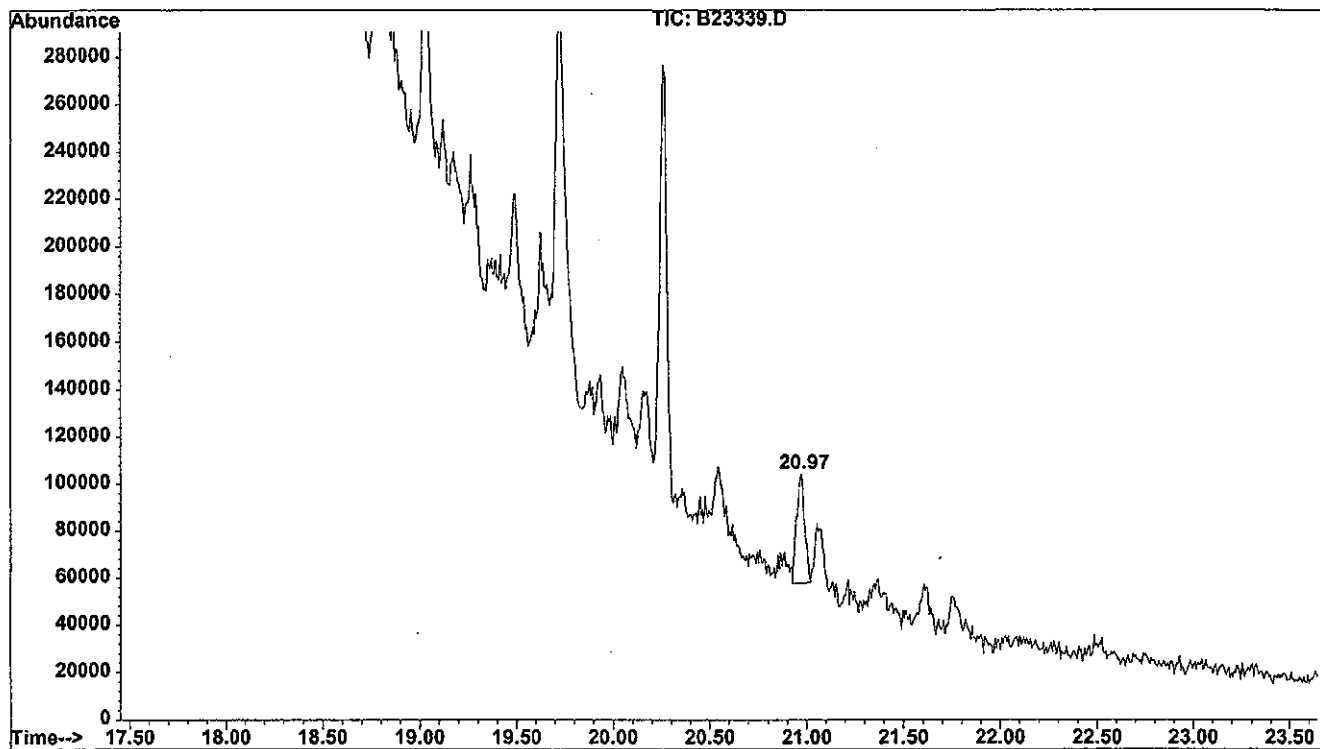
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Operator : CD
Acquired : 11 Aug 2009 18:29 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: SSTD2500 SUN 6
Misc Info : ,,,ICAL,,
Vial Number: 5

(4)

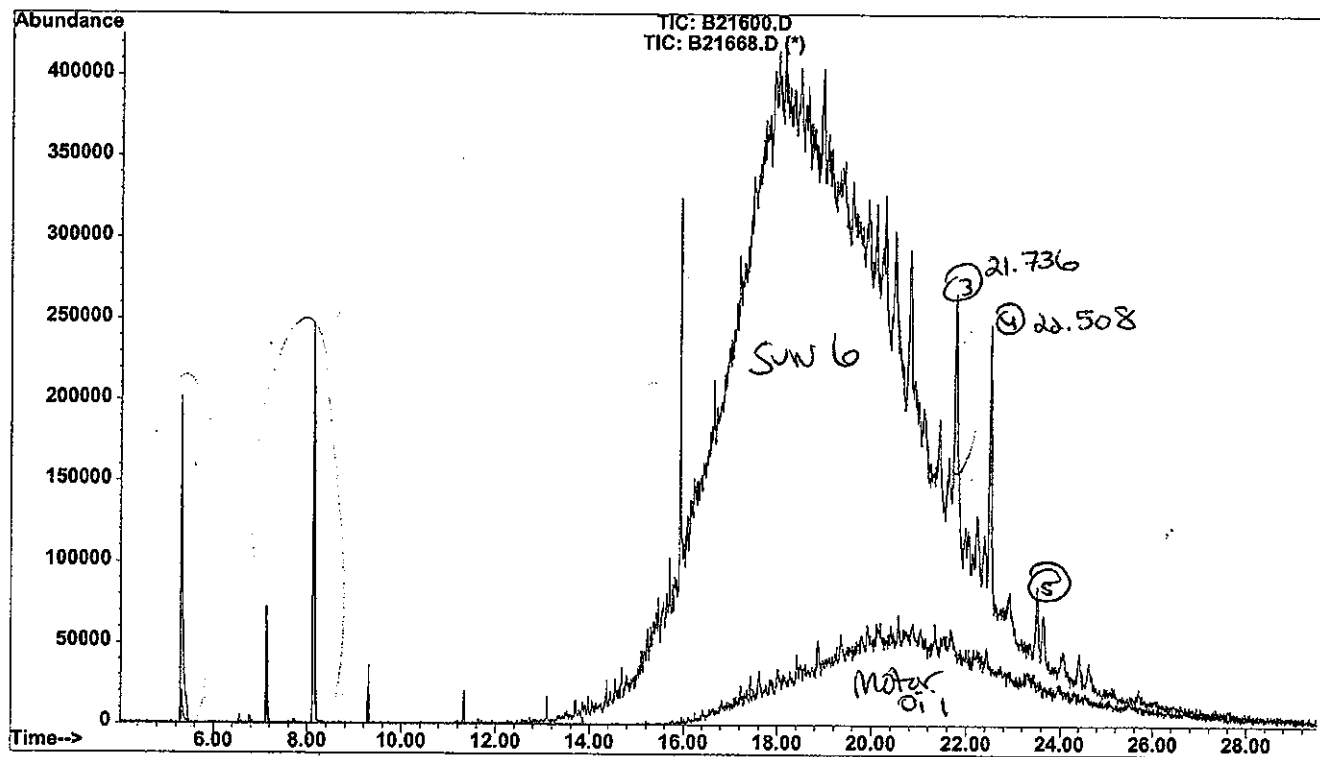


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Operator : CD
Acquired : 11 Aug 2009 18:29 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: SSTD2500 SUN 6
Misc Info : ,,,ICAL,,
Vial Number: 5

(5)

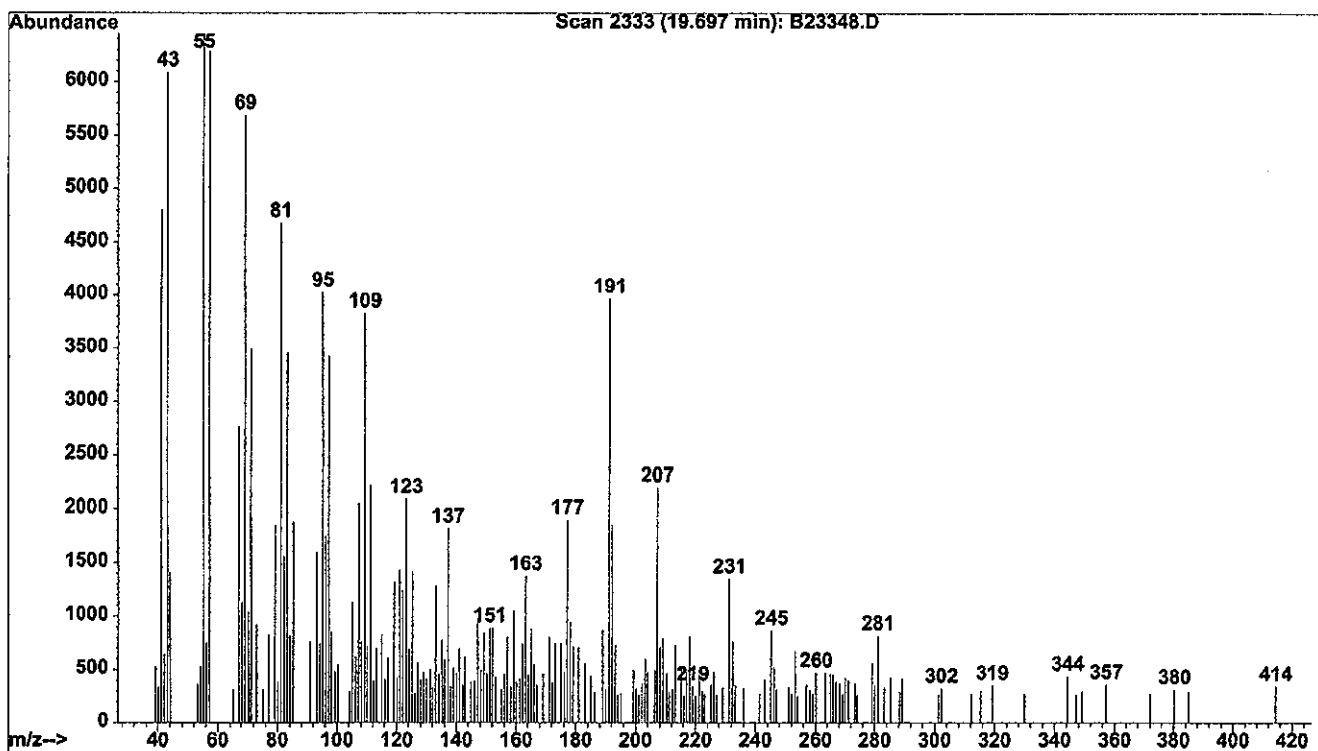
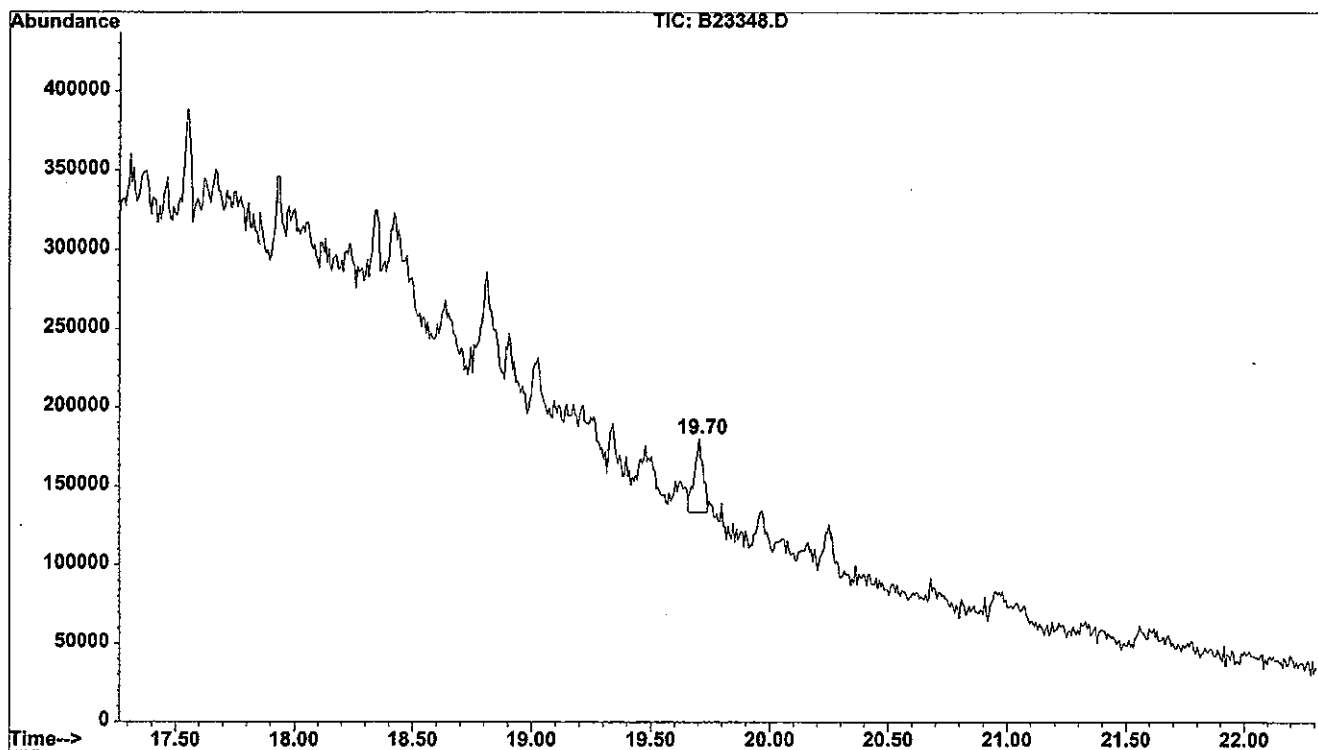


File : D:\HPCHEM\1\DATA\2008\DEC08\120308A\B21600.D
Operator : BG/CD
Acquired : 5 Dec 2008 2:41 using AcqMethod DF_0903
Instrument : H5970B
Sample Name: SST2500 SUN6
Misc Info : ,,,CCV,,
Vial Number: 30



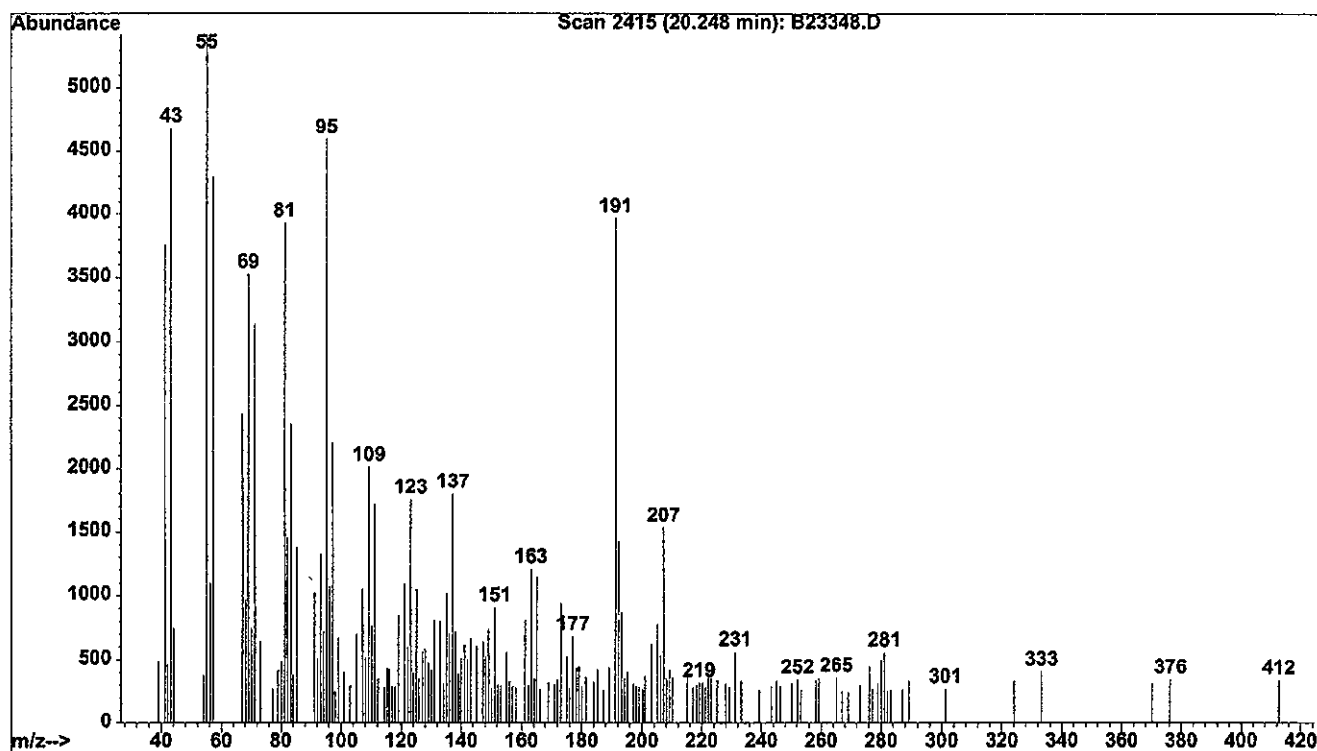
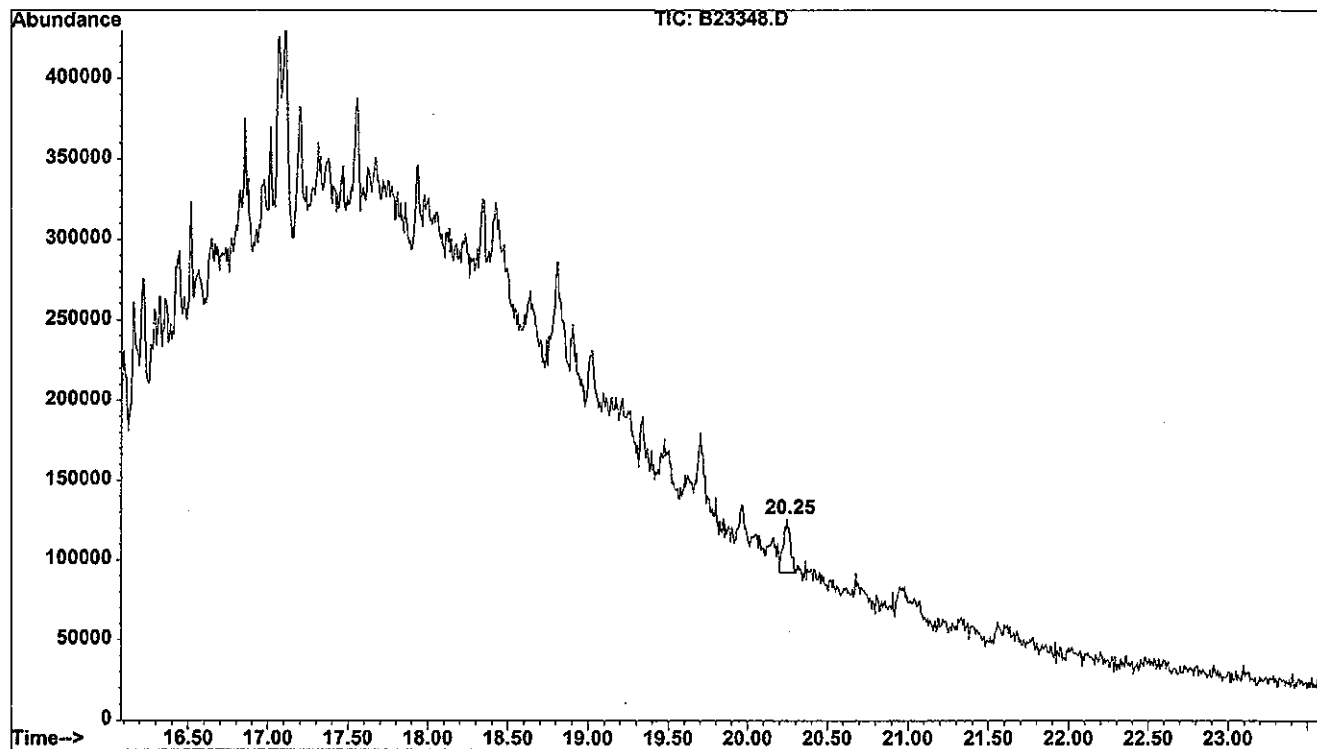
File : D:\HPCHEM\1\DATA\2009\AUG09\081109A\B23348.D
Operator : CD
Acquired : 12 Aug 2009 00:06 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: 0908257-006B
Misc Info : KEY-URS070,DGP-310(25-30),SOIL,SAMP,,1:2
Vial Number: 14

3



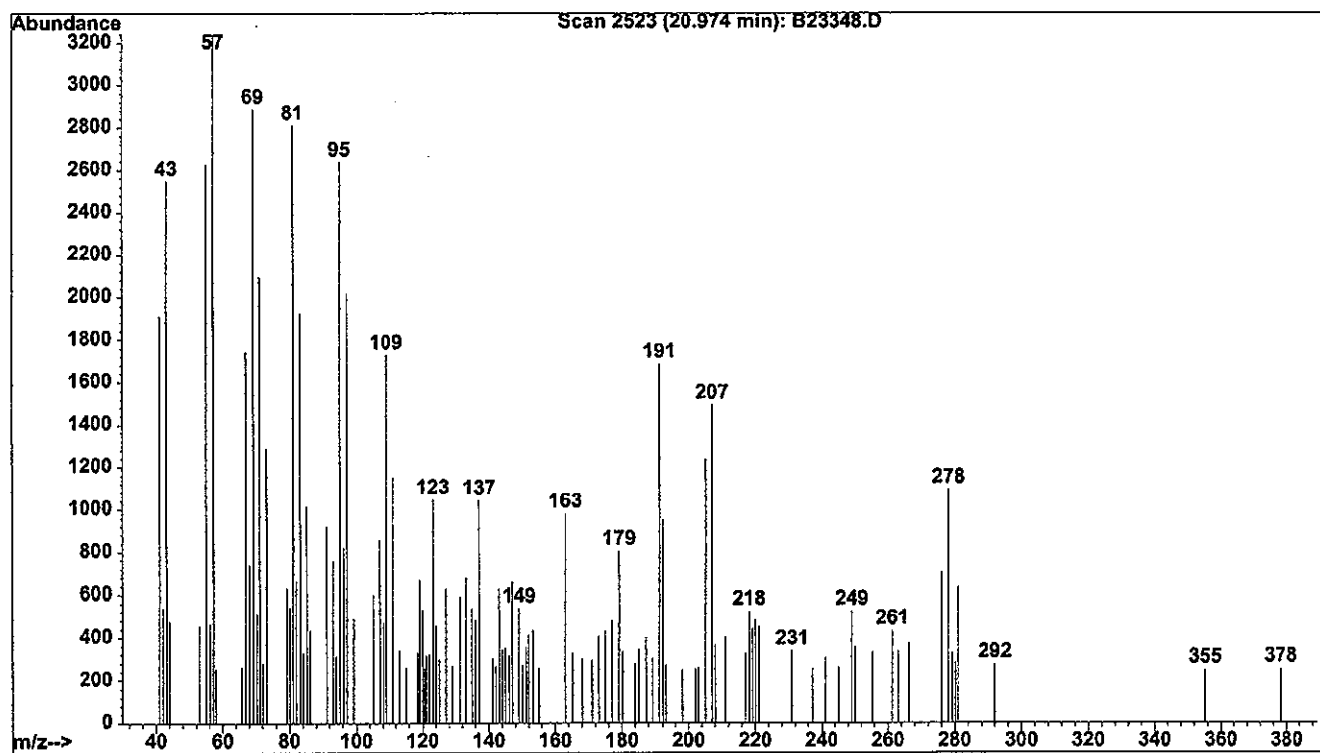
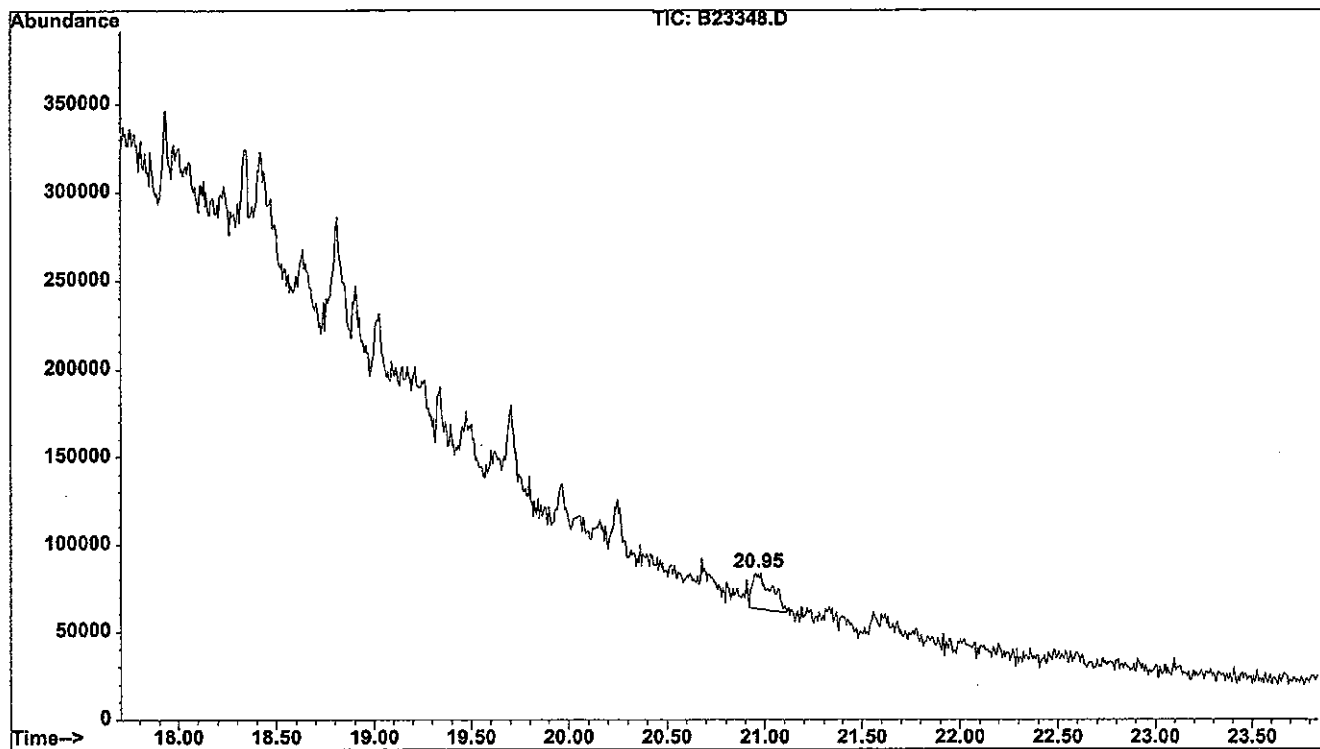
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Operator : CD
Acquired : 12 Aug 2009 00:06 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: 0908257-006B
Misc Info : KEY-URS070,DGP-310(25-30),SOIL,SAMP,,1:2
Vial Number: 14

4

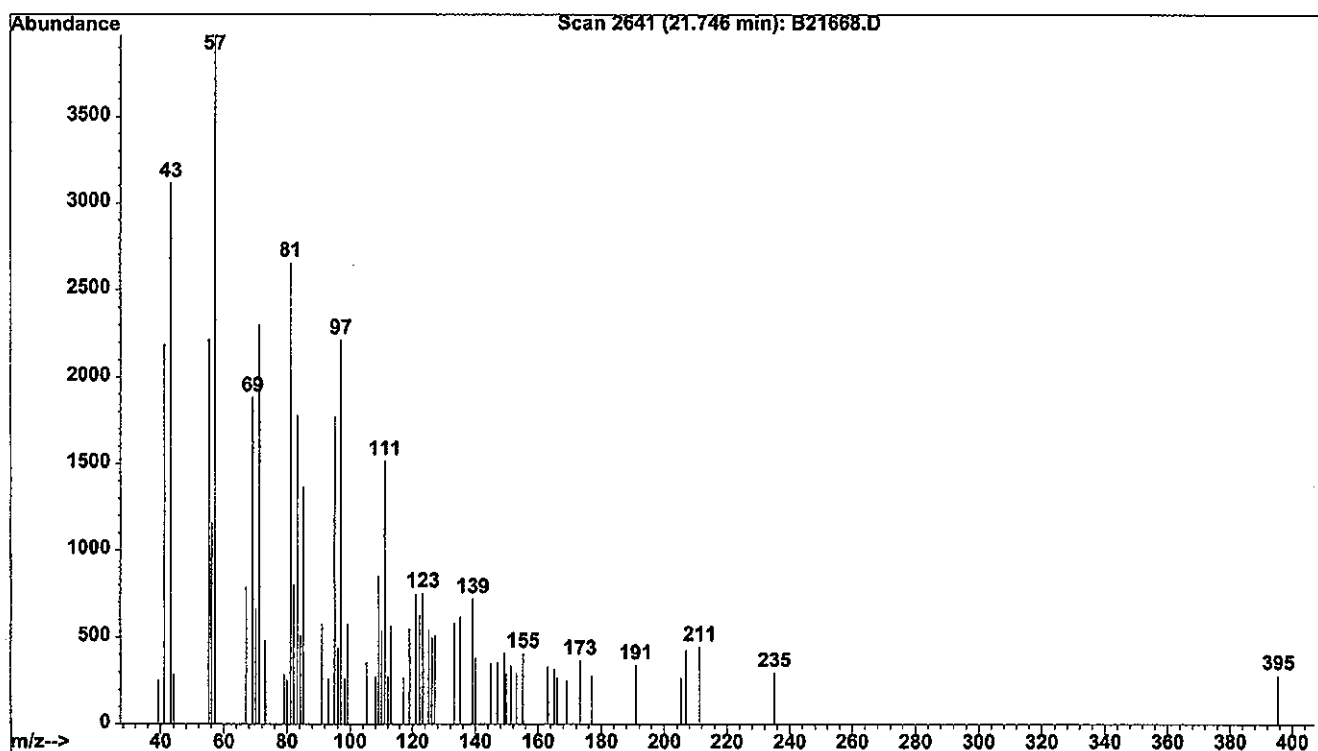
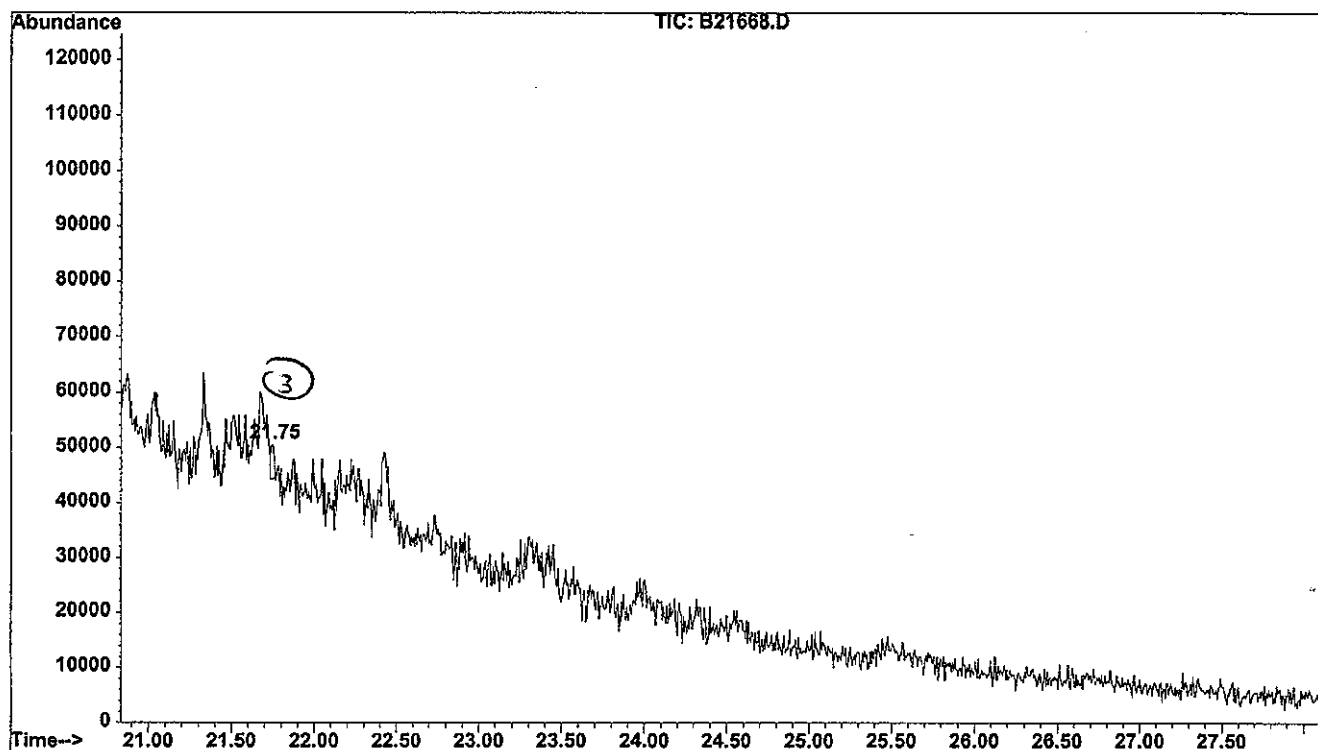


File : D:\HPCHEM\1\DATA\2009\AUG09\081109A\B23348.D
Operator : CD
Acquired : 12 Aug 2009 00:06 using AcqMethod DF_0623
Instrument : H5970B
Sample Name: 0908257-006B
Misc Info : KEY-URS070,DGP-310(25-30),SOIL,SAMP,,1:2
Vial Number: 14

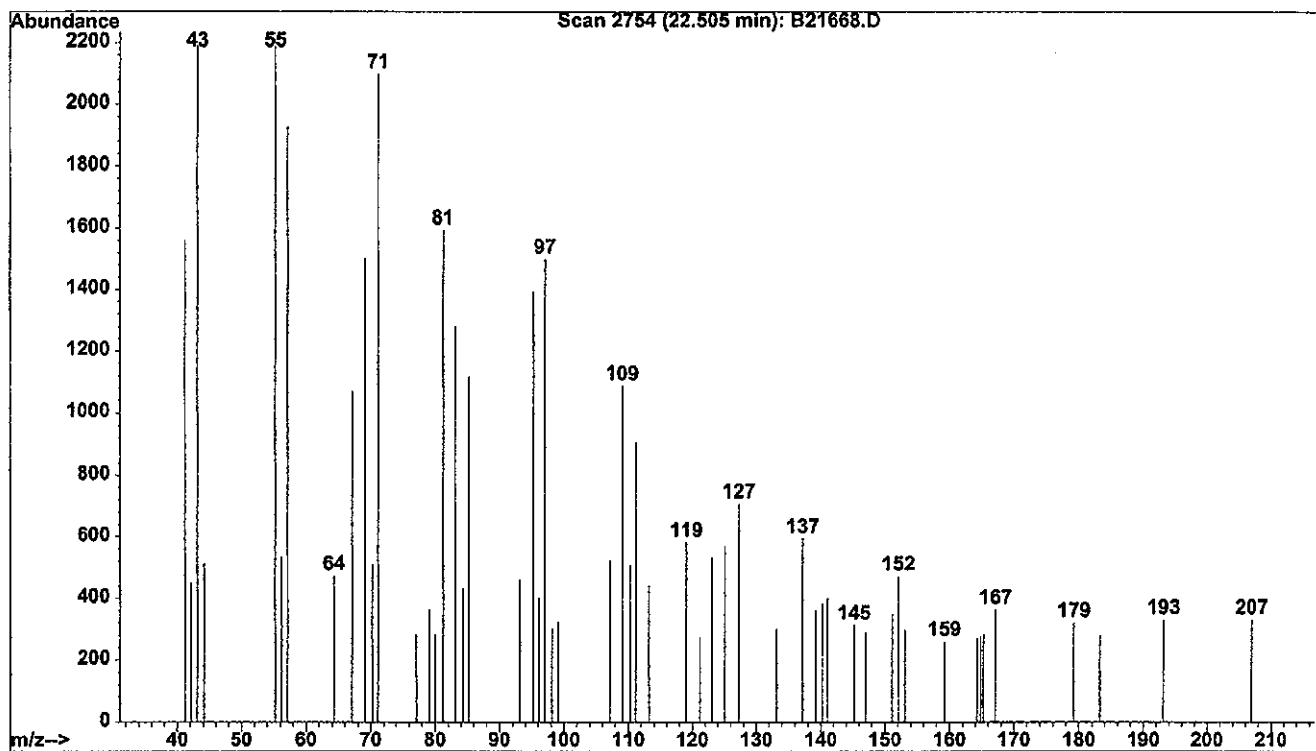
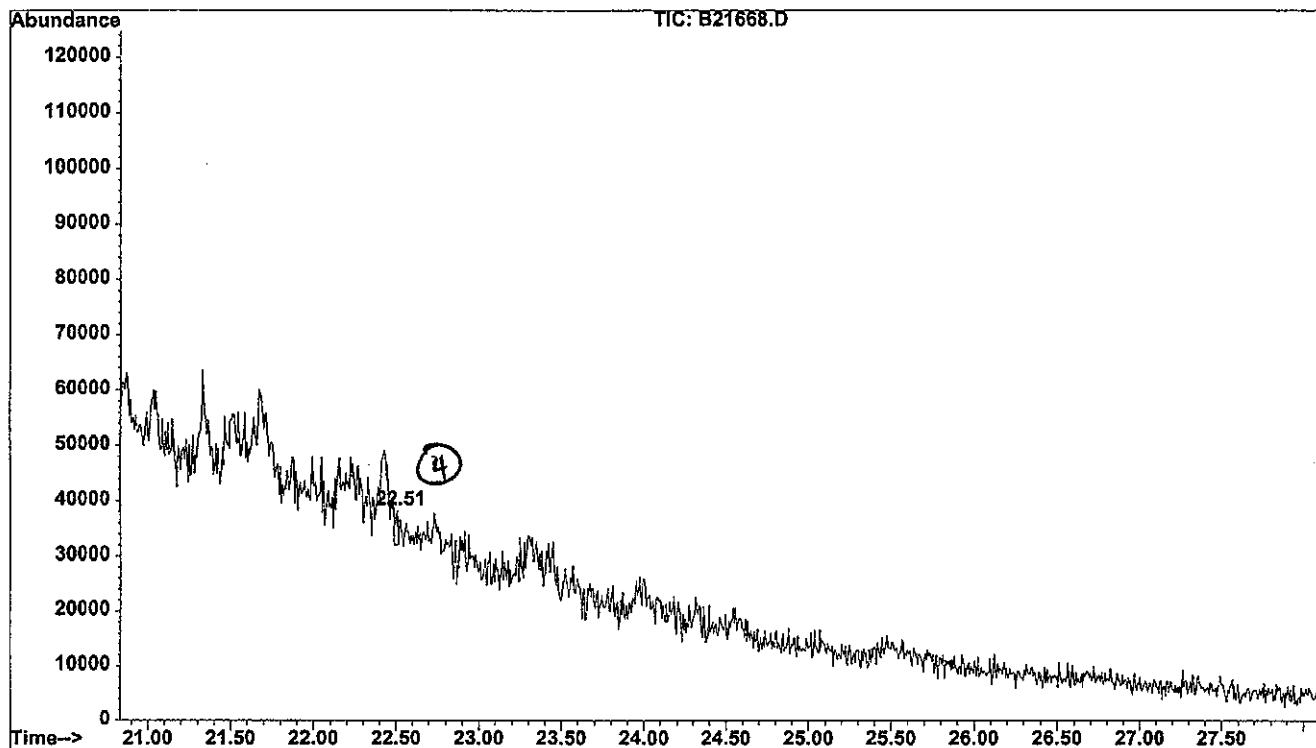
(5)



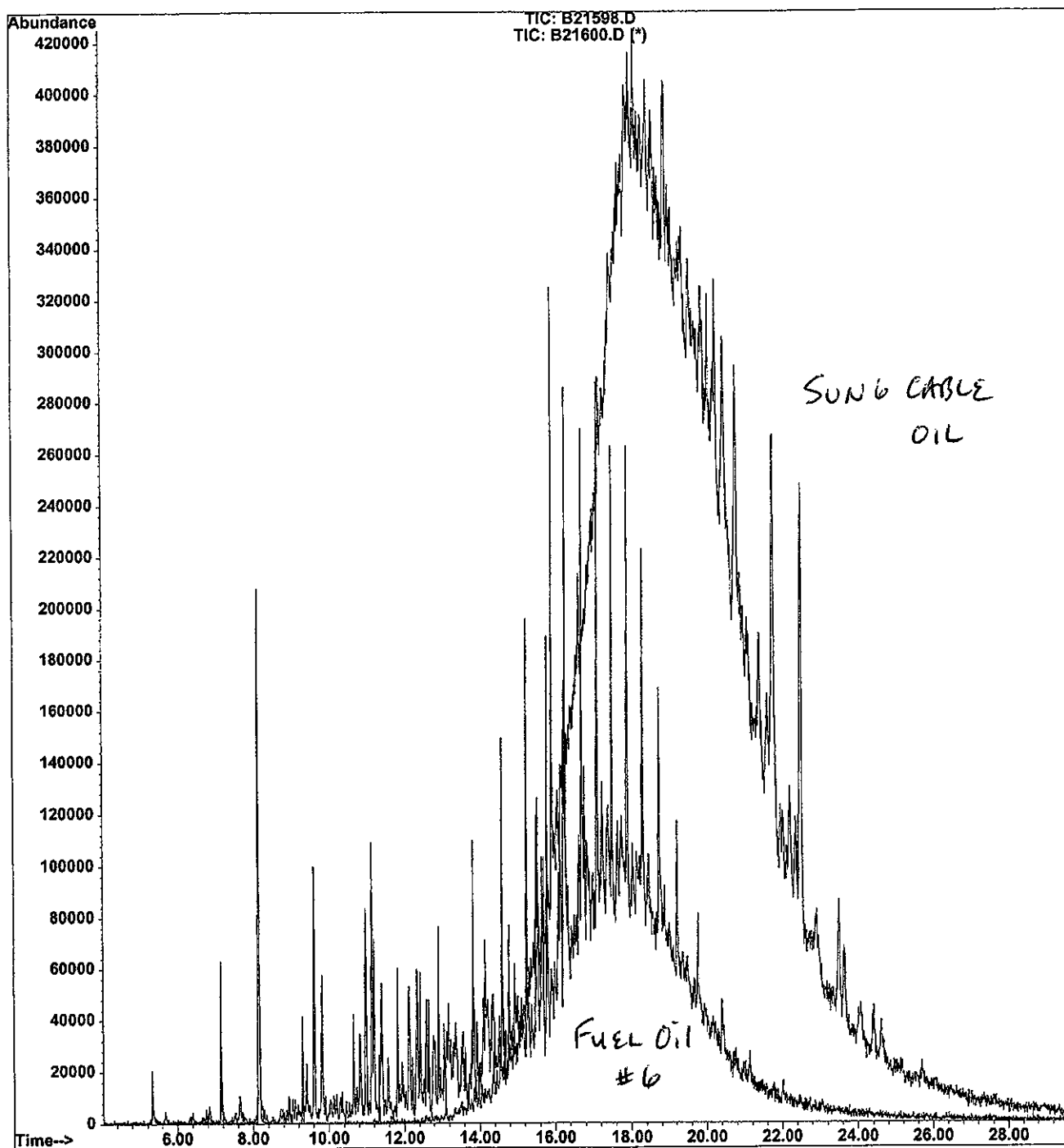
File : D:\HPCHEM\1\DATA\2008\DEC08\120808A\B21668.D
Operator : BG/CD
Acquired : 9 Dec 2008 12:02 using AcqMethod DF_1203
Instrument : H5970B
Sample Name: SST2500 MOTOR OIL
Misc Info : ,,,CCV,,
Vial Number: 35



File : D:\HPCHEM\1\DATA\2008\DEC08\120808A\B21668.D
Operator : BG/CD
Acquired : 9 Dec 2008 12:02 using AcqMethod DF_1203
Instrument : H5970B
Sample Name: SSTD2500 MOTOR OIL
Misc Info : ,,,CCV,,
Vial Number: 35



File : D:\HPCHEM\1\DATA\2008\DEC08\120308A\B21598.D
Operator : BG/CD
Acquired : 5 Dec 2008 1:27 using AcqMethod DF_0903
Instrument : H5970B
Sample Name: SSTD2500 FUEL6
Misc Info : ,,,CCV,,
Vial Number: 28



H2M LABS, INC.

575 Broad Hollow Rd, Melville, NY 11747-5076
Tel: (631) 694-3040 Fax: (631) 420-8436

22333

EXTERNAL CHAIN OF CUSTODY

PROJECT NAME/NUMBER Nat'l Grd Hempstead PDI # 11175065.00011		CLIENT: <u>URS</u>		H2M SDG NO: <u>KEY-URS 070</u>	
SAMPLERS: (signature)/Client <i>Jeff Hashman</i>		Project Contact: <i>Kevin Connare</i>		Phone Number:	
DELIVERABLES:		PIS/Quote #		NOTES:	
TURNAROUND TIME: <u>standard</u>		ANALYSIS REQUESTED		LAB I.D. NO.	
		ORGANIC		INORG.	
		VA		Metal	
		BTEX			
		PAH			
		Mod. 8100 Fingerpr.			
Sample Container Description ↑		Total No. of Containers		REMARKS:	
DATE	TIME	MATRIX	FIELD I.D.		
7/24/09		S	DGP-298/31-34	2	0908257-001A B
7/18/09		S	DGP-299/23-25	2	-002 A B
7/22/09		S	DGP-300/33-35	2	-003 A B
7/21/09		S	DGP-309/25-30	3	-004 A B
7/21/09		S	DGP-309/35-40	3	-005 A B
7/21/09		S	DGP-310/25-30	3	-006 A B
7/21/09		S	DGP-310/35-40	3	-007 A B
Relinquished by: (Signature)		Date		Time	
<i>Jeff Hashman</i>		7/23/09		14:36	
Relinquished by: (Signature)		Date		Time	
<i>S. Wolf</i>		7-23-09		15:41	
Relinquished by: (Signature)		Date		Time	
<i>S. Wolf</i>		7-23-09		15:41	
Relinquished by: (Signature)		Date		Time	
<i>S. Wolf</i>		7-23-09		15:41	

WHITE COPY - ORIGINAL

YELLOW COPY - CLIENT

PINK COPY - LABORATORY

LABORATORY USE ONLY

Discrepancies Between Sample Labels and COC Record? Y or N	
Explain:	
COC Tags were:	
1. Shipped or Hand Delivered: <u>Y</u> or N	
2. Ambient or chilled, Temp: <u>3</u> °C or <u>0</u> °C or <u>ICE</u>	
3. Received in good condition: Y or N	
4. Properly preserved: Y or N	
COC Tags were:	
1. Present on outer package: Y or N	
2. Unbroken on outer package: Y or N	
3. COC record present & complete upon sample receipt: Y or N	

H2M LABS, INC.

Sample Receipt Checklist

KEY-URS 070

Client Name KEY-URS

Date and Time Received: 7/23/2009 3:41:00 PM

Work Order Number 0908257

Received by MJMa

Checklist completed by

Matt M
Signature

7/23/09
Date

Reviewed by

JSA
Initials

7/24/09
Date

Matrix:

Carrier name Pickup

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	No VOA vials submitted <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Adjusted? _____ Checked by _____

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted YES

Date contacted: 7/24/09

Person contacted JEFF HARSHMAN

Contacted by: JEN ARACU

Regarding _____

Comments:

The chain of custody and all sample containers did not have any sample times listed.

Corrective Action

SAMPLER DID NOT WRITE TIMES DOWN. LOGIN
By DATE ONLY

KEY-URS070 S4

H2M LABS, INC.

SDG NARRATIVE FOR METALS
SAMPLE(S) RECEIVED: 9/22/09
SDG #: KEY-URS081

For Sample(s):

HISS-03-A
HISS-03-B
HISS-03-C
HISS-03-D
HISS-03-E
HISS-03-F
HISS-03-GX

10/19/09

Sample(s) was/were received by H2M Labs, Inc. for mercury analysis.

Samples were prepared and analyzed using EPA method 7471A with a Leeman HYDRA mercury analyzer.

Samples HISS-03-A was utilized for QC analysis and reporting.

Spike analysis did not recover within 75-125% for mercury. Since the sample value was greater than four times the spike concentration, post spikes and data qualifiers were not required.

Samples were diluted and reanalyzed as required to keep instrument readings within calibration ranges.

No other issues were noted during the analysis of this sample group.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 7, 2009

*
*
*

Vincent Stancampiano
Vice President

KEY-URS081 S8

H2M LABS, INC.

SDG NARRATIVE FOR VOLATILE ORGANICS
SAMPLES RECEIVED: 9/23/09, 9/24/09, 9/25/09 & 9/28/09
SDG #: KEY-URS082

For Sample(s):

DGP-303 / 15-16 DGP-325 / 35-40
DGP-326 / 26-28 DGP-321 / 32-33
DGP-322 / 30-32 DGP-320 / 25-30
DGP-323 / 35-40 DGP-320 / 30-35

10/23/09
AF

soil

The above ~~water~~ sample(s) was/were analyzed for a select list of volatile organic analytes (BTEX) by EPA method 8260B.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis.

No MS/MSD sample spikes were requested, but a lab-fortified blank (LFB) was analyzed. Recoveries indicate good method efficiency.

Samples DGP-322 / 30-32, DGP-321 / 32-33 and DGP-320 / 30-35 were initially analyzed at a 1:10 dilution. Samples DGP-322 / 30-32 and DGP-321 / 32-33 had high surrogate recoveries in the initial analysis. Samples DGP-322 / 30-32 and DGP-321 / 32-33 were reanalyzed at a medium level due to concentration levels of targeted analytes above the calibration range. All surrogate recoveries were within QC limits in the medium level analysis. Both sets of data are submitted.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 16, 2009

*
*

Joann M. Slavin
Senior Vice President

KEY-URS082 A3

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 DCA #	SMC2 TOL #	SMC3 BFB #	OTHER	TOT OUT
01	VBLK092809	93	93	95		0
02	LFB092809	90	94	97		0
03	DGP303/15-16	89	95	99		0
04	DGP322/30-32	105	96	252 *		1
05	DGP325/35-40	88	92	96		0
06	DGP321/32-33	93	95	158 *		1
07	VBLK092909	87	90	97		0
08	DGP326/26-28	88	93	107		0
09	DGP323/35-40	82	91	91		0
10	DGP320/30-35	87	91	101		0
11	DGP320/25-30	88	93	141		0

QC Limit

SMC1 DCA = 1,2-Dichloroethane-d4 (33-150)
 SMC2 TOL = Toluene-d8 (43-157)
 SMC3 BFB = 4-Bromofluorobenzene (34-145)

Column to be used to flag recovery values

* Values outside of contract required QC limits

H2M LABS, INC.

SDG NARRATIVE FOR SEMIVOLATILE ORGANICS

SAMPLE RECEIVED: 9/23/09 – 9/28/09

SDG #: KEY-URS082

For Sample(s):

DGP-303 / 15-16	DGP-325 / 35-40
DGP-326 / 26-28	DGP-321 / 32-33
DGP-322 / 30-32	DGP-320 / 25-30
DGP-323 / 35-40	DGP-320 / 30-35

The above sample(s) was/were analyzed for a select list of semivolatile organic analytes (polynuclear aromatics) by EPA method 8270C.

All QC data and calibrations met the requirements of the method, and no problems were encountered with sample analysis. The following should be noted:

No matrix/matrix spike duplicate was submitted. Two lab fortified blanks were analyzed and indicates good method efficiency.

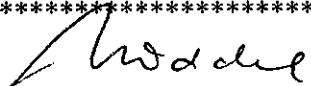
Five samples were reanalyzed at a dilution due to concentration levels of targeted analytes above the calibration range. Both sets of data are submitted. In three of the dilutions, the surrogate compounds were diluted out, and no surrogate recoveries were reportable.

The undiluted analysis for samples DGP-326 / 26-28, DGP-322 / 30-32, and DGP-321 / 32-33 had low internal standard (IS) area counts due to matrix interference. All IS areas were acceptable in the dilution.

Also due to the matrix interference, the same high samples each showed one surrogate recovery above the Q. C. limits.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 14, 2009

*  *

Ursula Middel
Technical Manager

KEY-URS082 A4

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082EPA Sample No.(SSTD050##): SSTD025

Date Analyzed:

09/28/09

Lab File ID (Standard):

W34262R.D

Time Analyzed:

10:55

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: .25

(mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	219164	4.56	760304	6.15	469556	9.22
UPPER LIMIT	438328	5.06	1520608	6.65	939112	9.72
LOWER LIMIT	109582	4.06	380152	5.65	234778	8.72
EPA SAMPLE NO.						
01 MB-32968	175203	4.56	614996	6.14	380281	9.21
02 LFB-32968	232858	4.57	814560	6.15	499173	9.22
03 DGP-323/35-40	200752	4.57	703479	6.14	428919	9.21
04 DGP-325/35-40	192539	4.57	676652	6.14	411885	9.21
05 DGP-303/15-16	218211	4.57	755443	6.14	460535	9.21
06 DGP-322/30-32	223153	4.61	252959*	6.24	296451	9.49
07 DGP-326/26-28	131126	4.57	365121*	6.23	124700*	9.54
08 DGP-321/32-33	47847*	4.59	337366*	6.20	389783	9.43

IS1 = 1,4-Dichlorobenzene-d4

IS2 = Naphthalene-d8

IS3 = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-1

OLM04.2

KEY-URS082 B14

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082

EPA Sample No.(SSTD050###):

SSTD025

Date Analyzed:

09/28/09

Lab File ID (Standard):

W34262R.D

Time Analyzed:

10:55

Instrument ID:

HP5973N

GC Column:

R-5SILMS ID: .25

(mm)

	IS4 AREA #	RT #	IS5 AREA #	RT #	IS6 AREA #	RT #
12 HOUR STD	743115	12.11	821486	15.12	709425	16.25
UPPER LIMIT	1486230	12.61	1642972	15.62	1418850	16.75
LOWER LIMIT	371558	11.61	410743	14.62	354713	15.75
EPA SAMPLE NO.						
01 MB-32968	623640	12.10	662929	15.11	569730	16.24
02 LFB-32968	802158	12.11	855648	15.11	742941	16.24
03 DGP-323/35-40	704252	12.10	729422	15.10	624026	16.23
04 DGP-325/35-40	667295	12.10	698570	15.10	575306	16.22
05 DGP-303/15-16	738996	12.10	705268	15.10	428897	16.22
06 DGP-322/30-32	210517*	12.38	115614*	15.26	104157*	16.29
07 DGP-326/26-28	141083*	12.39	221885*	15.23	42872*	16.29
08 DGP-321/32-33	307540*	12.33	162221*	15.23	122774*	16.28

IS4 = Phenanthrene-d10

IS5 = Chrysene-d12

IS6 = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area

AREA LOWER LIMIT = -50% of internal standard area

RT UPPER LIMIT = +0.50 minutes of internal standard RT

RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.

* Values outside of QC limits.

page 1 of 1

FORM VIII SV-2

OLM04.2

KEY-URS082 B15

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Lab File ID: 9\N34261.D

DFTPP Injection Date: _____

09/28/09Instrument ID: HP5973N

DFTPP Injection Time: _____

10:40

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.1
68	Less than 2% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	41.8
70	Less than 2% of mass 69	0.1 (0.3)1
127	40.0 - 60.0% of mass 198	50.7
197	Less than 1% of mass 198	0.2
198	Base peak, 100% relative abundance	100.0
199	5.0 - 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	25.1
365	Greater than 1% of mass 198	3.4
441	Present, but less than mass 443	12.0
442	40.0 - 110.0% of mass 198	87.3
443	17.0 - 23.0% of mass 442	16.2 (18.5)2

1-Value is % mass 69

2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD025	SSTD025	W34262R.D	09/28/09	10:55
02	MB-32968	MB-32968	W34267R.D	09/28/09	13:28
03	LFB-32968	LFB-32968	W34268R.D	09/28/09	13:59
04	DGP-323/35-40	0910525-002B	9\N34270.D	09/28/09	14:59
05	DGP-325/35-40	0910525-003B	9\N34271.D	09/28/09	15:28
06	DGP-303/15-16	0910490-001B	9\N34275.D	09/28/09	17:30
07	DGP-322/30-32	0910525-001B	9\N34279.D	09/28/09	19:32
08	DGP-326/26-28	0910490-002B	9\N34280.D	09/28/09	20:01
09	DGP-321/32-33	0910570-001B	9\N34282.D	09/28/09	21:01

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478Case No.: KEY-URSSAS No.: SDG No.:KEY-URS082Instrument ID: HP5973NCalibration Dates: 8/31/20098/31/2009Heated Purge: (Y/N) NCalibration Times: 10:4113:12GC Column: R-5SILMSID: .25

(mm)

LAB FILE ID:	SSTD005=	N33587.D	SSTD010=	N33588.D	SSTD025=	N33586.D	SSTD040=	N33589.D	SSTD060=	N33590.D
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD
Naphthalene	1.1056658	1.2191448	1.0522884	1.0341266	0.9562321	0.9127126			1.047	10.4
4-Chloroaniline	0.4565886	0.5071475	0.4446577	0.4401605	0.4007284	0.3739161			0.437	10.6
Hexachlorobutadiene	* 0.1816685	0.1987703	0.1735173	0.1720926	0.1577013	0.1494180			0.172	10.1 *
4-Chloro-3-methylphenol	* 0.2602288	0.3030116	0.2671641	0.274464	0.2501464	0.2574757			0.269	7.0 *
2-Methylnaphthalene	0.688543	0.7645328	0.6705551	0.665492	0.6172042	0.5955304			0.667	8.9
Hexachlorocyclopentadiene	* 0.3448325	0.2926893	0.2314344	0.3037085	0.2148817	0.2204207			0.268	19.9 *
2,4,6-Trichlorophenol	* 0.3703096	0.4312221	0.3787055	0.3884128	0.3791170	0.3784859			0.388	5.7 *
2,4,5-Trichlorophenol	0	0.447886	0.399863	0.41121	0.398381	0.3944978			0.410	5.3
2-Chloronaphthalene	1.4718337	1.5690825	1.3636309	1.3801110	1.2561168	1.1663722			1.368	10.6
2-Nitroaniline	0	0.4131655	0.3522501	0.3720785	0.3583294	0.3499254			0.369	7.1
Dimethylphthalate	1.3111297	1.4754772	1.3004692	1.3104104	1.2644255	1.254305			1.319	6.1
Acenaphthylene	2.0170514	2.2745814	1.9715355	1.9903194	1.8752752	1.8155535			1.991	8.0
2,6-Dinitrotoluene	0.2977623	0.3460651	0.3081614	0.3258473	0.3128145	0.3073295			0.316	5.4
3-Nitroaniline	0	0.3788249	0.3459349	0.3597955	0.3487738	0.3524433			0.357	3.7
Acenaphthene	* 1.2382298	1.3927907	1.1971964	1.2083891	1.1366792	1.1026998			1.213	8.3 *
2,4-Dinitrophenol	*	0.1071964	0.1107802	0.1637576	0.1835774	0.1969353			0.152	27.2 *
4-Nitrophenol	0	0.1495919	0.1365259	0.1389965	0.1521197	0.1733638			0.150	9.7 *
Dibenzofuran	1.749629	1.9314248	1.6787276	1.6753797	1.5682244	1.5306942			1.689	8.5
2,4-Dinitrotoluene	0.3686676	0.4381237	0.3970351	0.4219657	0.4104649	0.4118339			0.408	5.8
Diethylphthalate	1.2758323	1.4390733	1.2859573	1.3216787	1.2643605	1.2455189			1.304	5.5
1,2,4,5-Tetrachlorobenzene	0.5911354	0.6940992	0.5276247	0.5546779	0.5251633	0.4967422			0.560	10.7
4-Chlorophenyl-phenylether	0.6465681	0.7203117	0.6336153	0.6359204	0.6018149	0.5801069			0.636	7.5
Fluorene	1.4291388	1.5977978	1.3893508	1.3929066	1.3043729	1.2630198			1.396	8.3

FORM VI

SW8270C

KEY-URS082 B155

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478Case No.: KEY-URSSDG No.: KEY-URS082Instrument ID: HP5973NCalibration Dates: 8/31/2009 8/31/2009Heated Purge: (Y/N) NCalibration Times: 10:41 13:12GC Column: R-5SILMSID: .25 (mm)

LAB FILE ID: <u>SSTD005= N33587.D</u>		<u>SSTD010= N33588.D</u>		<u>SSTD025= N33586.D</u>		<u>SSTD040= N33589.D</u>		<u>SSTD060= N33590.D</u>	
<u>SSTD080= N33591.D</u>									
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		RRF	% RSD
4-Nitroaniline	0	0.4024281	0.3599918	0.3725937	0.3597552	0.3622923		0.371	4.9
4,6-Dinitro-2-methylphenol	0	0.1271561	0.1218248	0.146965	0.1501913	0.1531068		0.140	10.2
N-Nitrosodiphenylamine	* 0.7716224	0.8755879	0.7543259	0.7426531	0.6947797	0.6697102		0.751	9.6 *
1,2-Diphenylhydrazine	0.8230556	0.9261837	0.7972119	0.7904188	0.7317215	0.7721487		0.807	8.2
4-Bromophenyl-phenylether	0.2537636	0.2854438	0.2401432	0.2395209	0.2229052	0.2078901		0.242	11.0
Hexachlorobenzene	0.2765892	0.3111823	0.2640449	0.2555005	0.2217606	0.2119983		0.257	14.2
Pentachlorophenol	* 0	0.1731226	0.1685256	0.1710466	0.1592491	0.1520167		0.164	5.3 *
Phenanthrene	1.2785194	1.4459174	1.2274212	1.1976493	1.1007439	1.0417636		1.215	11.7
Anthracene	1.2955732	1.4537641	1.2169668	1.1697976	1.0501287	0.9848683		1.195	14.2
Carbazole	1.1909159	1.3806496	1.1709119	1.1527776	1.0845822	1.0249367		1.161	10.1
Di-n-butyl phthalate	1.4422827	1.6272324	1.3945605	1.3732935	1.2567881	1.1874361		1.380	11.1
Fluoranthene	* 1.2993545	1.4547244	1.2109818	1.1674315	1.0414089	0.9847644		1.193	14.4 *
Pyrene	1.4370633	1.5748707	1.3297297	1.2893533	1.2625535	1.3125369		1.368	8.6
Butyl benzyl phthalate	0.6522210	0.7168198	0.6240851	0.6145655	0.5775559	0.5788232		0.627	8.3
3,3'-Dichlorobenzidine	0.4447493	0.5055611	0.4132330	0.3924000	0.3591788	0.3558313		0.412	13.8
Benzo(a)anthracene	1.2282747	1.344786	1.1316306	1.1104578	1.0600076	1.1074544		1.164	9.0
Chrysene	1.1931344	1.2827759	0.9954899	0.8833912	0.8713626	0.8724264		1.016	17.7
bis(2-Ethylhexyl)phthalate	0.8714417	0.9440145	0.7504816	0.6964945	0.6591938	0.6724478		0.766	15.2
Di-n-octyl phthalate	* 1.4674184	1.6349927	1.4266778	1.3765773	1.1921057	1.1087678		1.368	14.0 *
Benzo(b)fluoranthene	1.3155116	1.4233113	1.2156143	1.2589615	1.0926208	1.112048		1.236	10.1
Benzo(k)fluoranthene	1.1831218	1.3084593	1.0279863	0.8695761	0.7671082	0.6195733		0.964	27.1
Benzo(a)pyrene	* 1.1193515	1.2866889	1.0921740	1.0730079	0.9773483	0.9268265		1.079	11.6 *
Indeno(1,2,3-cd)pyrene	1.2416009	1.3926782	1.2190001	1.2237207	1.1285582	1.0513601		1.209	9.5

FORM VI

SW8270C

KEY-URS082 B156

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC. Contract: H2M LABS, INC.
 Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS082
 Instrument ID: HP5973N Calibration Dates: 8/31/2009 8/31/2009
 Heated Purge: (Y/N) N Calibration Times: 10:41 13:12
 GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:		SSTD005=	N33587.D	SSTD010=	N33588.D	SSTD025=	N33586.D	SSTD040=	N33589.D	SSTD060=	N33590.D
		SSTD080=	N33591.D								
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD	R ²
Dibenzo(a,h)anthracene	0.9712275	1.0985888	0.9517416	0.9517988	0.8773085	0.8213753			0.945	9.9	
Benzo(g,h)perylene	1.0904117	1.220918	1.0874054	1.0973203	1.0208245	0.9541256			1.079	8.3	
2-Fluorophenol	1.2449815	1.3859902	1.3125233	1.2813064	1.2117473	1.1734294			1.268	6.0	
Nitrobenzene-d5	0.3933572	0.3626914	0.3316632	0.3184259	0.3136243	0.3012822			0.337	10.3	
Phenol-d5	1.4964901	1.6618263	1.5609909	1.5174344	1.4021436	1.3364186			1.496	7.7	
2,4,6-Tribromophenol	0.1827497	0.2113167	0.1861079	0.1820515	0.1672590	0.1613129			0.182	9.6	
2-Fluorobiphenyl	1.6110076	1.4925757	1.3273546	1.2979617	1.2593545	1.1985699			1.384	11.4	
4-Terphenyl-d14	1.1017987	0.9936171	0.8410255	0.7608548	0.7383251	0.7492221			0.864	17.4	
2-Chlorophenol-d4	1.3752117	1.5137605	1.4395527	1.3980304	1.3081756	1.2545427			1.382	6.7	
1,2-Dichlorobenzene-d4	1.1159339	1.0351160	0.9667435	0.8701508	0.8042311	0.7407126			0.922	15.5	

* Compounds with required minimum RRF and maximum %RSD values.
 All other compounds must meet a minimum RRF of 0.010.

FORM VI

SW8270C

KEY-URS082 B157

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS082Instrument ID: HP5973N Calibration Dates: 10/1/2009 10/1/2009Heated Purge: (Y/N) N Calibration Times: 13:28 15:59GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID: SSTD005= N34361.D SSTD010= N34362.D SSTD025= N34360.D SSTD040= N34363.D SSTD060= N34364.D															
SSTD080= N34365.D															
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6							R ²	RSD	RRF
Pyridine	1.3304245	1.4125741	1.4078077	1.4252011	1.4565773	1.44335575								3.1	1.413
* Phenol	1.7107632	1.7400476	1.7492741	1.9124063	2.0125453	2.0227622							*	7.7	1.858
Aniline	1.8176285	1.9369913	1.9534870	2.1496229	2.2597243	2.2654589								9.1	2.064
Bis(2-chloroethyl)ether	1.1541728	1.2455198	1.1338457	1.2716688	1.2938529	1.2979855								5.8	1.233
N-Nitrosodimethylamine	0.6592268	0.7183895	0.7199585	0.7468496	0.7418188	0.745789								4.6	0.722
2-Chlorophenol	1.2282580	1.3186055	1.3025090	1.4173019	1.4749649	1.4873722								7.6	1.372
1,3-Dichlorobenzene	1.4060537	1.4814333	1.4246513	1.5652335	1.6238057	1.6212591								6.4	1.520
Benzyl alcohol	0.5829264	0.7072329	0.7199911	0.8590417	0.9530516	0.9781302								19.4	0.800
* 1,4-Dichlorobenzene	1.4663780	1.5499603	1.5169005	1.6462077	1.7001738	1.6965244							*	6.2	1.596
1,1,2-Dichlorobenzene	1.3445435	1.4125279	1.3920174	1.5492921	1.6501279	1.6612688								9.2	1.502
2-Methylphenol	1.1453792	1.2062086	1.1724371	1.2425111	1.2477124	1.2643945								3.9	1.213
2,2'-oxybis(1-Chloropropane)	1.8210296	1.9178617	1.8401204	1.9560175	1.9753376	1.972159								3.5	1.914
4-Methylphenol	1.1706411	1.2981932	1.3421113	1.4887459	1.5700251	1.5692902								11.5	1.407
N-Nitroso-di-n-propylamine	* 0.8940800	0.9765978	0.9662966	1.0517889	1.0572793	1.0464814							*	6.5	0.999
Hexachloroethane	0.5577987	0.5989332	0.5893457	0.6302412	0.6429258	0.6408708								5.5	0.610
Nitrobenzene	0.3788657	0.4030983	0.3966008	0.4251239	0.4347900	0.4401389								5.8	0.413
Isophorone	0.6656566	0.7176653	0.7038679	0.7470557	0.7637759	0.7657176								5.4	0.727
* 2-Nitrophenol	0.1831592	0.1960681	0.1993438	0.2196701	0.2295358	0.2296598							*	9.3	0.210
2,4-Dimethylphenol	0.3207008	0.3436864	0.3621145	0.3919611	0.4065201	0.4110948								9.8	0.373
bis(2-Chloroethoxy)methane	0.3776588	0.3991382	0.3995116	0.4262750	0.4406161	0.4386527								6.1	0.414
* 2,4-Dichlorophenol	0.2831179	0.3078443	0.3077712	0.3365490	0.3570224	0.3641405							*	9.7	0.326
1,2,4-Trichlorobenzene	0.3487863	0.3642814	0.3686705	0.4001809	0.4223671	0.4253882								8.3	0.388
Naphthalene	1.0073395	1.0648661	1.0640313	1.1685754	1.2410698	1.2463416								8.9	1.132

FORM VI

SW8270C

KEY-URS082 B188

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS082Instrument ID: HP5973NCalibration Dates: 10/1/2009 10/1/2009Heated Purge: (Y/N) NCalibration Times: 13:28 15:59GC Column: R-5SILMSID: .25 (mm)

LAB FILE ID:		SSTD005=	N34361.D	SSTD010=	N34362.D	SSTD025=	N34360.D	SSTD040=	N34363.D	SSTD060=	N34364.D
		SSTD080=	N34365.D								
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6				RRF	% RSD
4-Chloroaniline	0.4277234	0.4605583	0.4700293	0.5275421	0.5656687	0.5999247				0.502	11.4
Hexachlorobutadiene	* 0.2166034	0.2248035	0.2227976	0.2429760	0.2562612	0.2572017				0.237	7.5 *
4-Chloro-3-methylphenol	* 0.2587119	0.2931853	0.2914551	0.3199477	0.3314342	0.3335679				0.305	9.5 *
2-Methylnaphthalene	0.6547228	0.7108647	0.7043453	0.7758959	0.8242252	0.8280939				0.750	9.4
Hexachlorocyclopentadiene	* 0.2295034	0.3089598	0.356313	0.4105019	0.4398244	0.4550679				0.367	23.6 *
2,4,6-Trichlorophenol	* 0.3269268	0.3635579	0.3729700	0.4039728	0.4312287	0.4410933				0.390	11.2 *
2,4,5-Trichlorophenol	0	0.3576903	0.3866299	0.4176687	0.4544027	0.4586599				0.415	10.5
2-Chloronaphthalene	1.2586935	1.3566077	1.3709817	1.4987367	1.3611497	1.5360227				1.397	7.3
2-Nitroaniline	0	0.326793	0.3330310	0.3535847	0.3708619	0.3620163				0.349	5.4
Dimethylphthalate	1.1740831	1.2652492	1.2361945	1.3285785	1.3768215	1.3909167				1.296	6.5
Acenaphthylene	1.6426913	1.7714953	1.7680600	1.9527664	2.1144174	2.1396086				1.898	10.7
2,6-Dinitrotoluene	0.2682557	0.2902496	0.2965014	0.3266749	0.3555323	0.3603244				0.316	11.8
3-Nitroaniline	0	0.3083314	0.3139338	0.3311595	0.3484275	0.3438203				0.329	5.4
Acenaphthene	* 1.0815387	1.1373202	1.1369382	1.2477750	1.3336297	1.3465227				1.214	9.2 *
2,4-Dinitrophenol	* 0	0.0986590	0.1403976	0.1721928	0.2058688	0.210223				0.165	28.3 *
4-Nitrophenol	* 0	0.1754073	0.1612066	0.2013523	0.2107686	0.2035402				0.190	11.1 *
Dibenzofuran	1.4513359	1.5466523	1.5243536	1.6582027	1.7676545	1.7828913				1.622	8.4
2,4-Dinitrotoluene	0.3378934	0.3630742	0.3708073	0.3988492	0.424205	0.4271589				0.387	9.2
Diethylphthalate	1.1449993	1.256145	1.2248489	1.3135377	1.3594262	1.3706813				1.278	6.8
1,2,4,5-Tetrachlorobenzene	0.5087928	0.6016143	0.5726364	0.6563449	0.7091374	0.7082197				0.626	12.7
4-Chlorophenyl-phenylether	0.5924185	0.6298716	0.6163296	0.6834944	0.7131762	0.7175542				0.659	8.1
Fluorene	1.1793202	1.2638705	1.2687461	1.4105377	1.49991	1.519311				1.357	10.3
4-Nitroaniline	0	0.29067	0.2911007	0.3193016	0.3364983	0.3295935				0.313	6.9

FORM VI

SW8270C

KEY-URS082 B189

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS082Instrument ID: HP5973NCalibration Dates: 10/1/2009 10/1/2009Heated Purge: (Y/N) NCalibration Times: 13:28 15:59GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:	SSTD005=	N34361.D	SSTD010=	N34362.D	SSTD025=	N34360.D	SSTD040=	N34363.D	SSTD060=	N34364.D
	SSTD080=	N34365.D								
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRP	% RSD
4,6-Dinitro-2-methylphenol	0	0.1134290	0.1311464	0.1531018	0.1676011	0.1711133			0.147	16.7
N-Nitrosodiphenylamine	* 0.5985563	0.6627823	0.6749506	0.7360432	0.7865377	0.7929113			0.709	10.8
1,2-Diphenylhydrazine	0.7702946	0.8236412	0.826952	0.8855051	0.8967869	0.9030042			0.851	6.2
4-Bromophenyl-phenylether	0.2335275	0.2445195	0.2477985	0.2734302	0.2825413	0.2874691			0.262	8.6
Hexachlorobenzene	0.2703538	0.2821287	0.2836609	0.3162938	0.3289363	0.3278928			0.302	8.6
Pentachlorophenol	* 0	0.1317826	0.1608832	0.19349	0.2131526	0.2135038			0.183	19.5
Phenanthrene	1.0509583	1.1227874	1.1281895	1.2407561	1.3084224	1.2947582			1.191	8.8
Anthracene	1.0253176	1.1312777	1.1940368	1.3427951	1.4188389	1.4176773			1.255	13.0
Carbazole	0.8786621	1.0226597	1.0429511	1.1557807	1.2170420	1.2019223			1.087	12.0
Di-n-butyl phthalate	1.1647350	1.3115369	1.3273745	1.4422301	1.4654795	1.4680164			1.363	8.7
Fluoranthene	* 1.0779125	1.2084052	1.2237853	1.3576889	1.4211486	1.3944341			1.281	10.4
Pyrene	1.1359722	1.1693549	1.1750711	1.2428983	1.2638436	1.2684219			1.209	4.6
Butyl benzyl phthalate	0.4978093	0.5126664	0.5020675	0.5376616	0.5426687	0.5448193			0.523	4.1
3,3'-Dichlorobenzidine	0.3424009	0.3550236	0.4145474	0.4028161	0.4311065	0.4010874			0.391	8.9
Benzo(a)anthracene	1.0106804	1.0866442	1.0985658	1.1899162	1.1791002	1.1513288			1.119	6.0
Chrysene	0.8957210	0.9705244	0.9887115	1.0520359	1.0869418	1.0709246			1.011	7.2
bis(2-Ethylhexyl)phthalate	0.5542278	0.6756875	0.6826391	0.7313240	0.7498305	0.7519002			0.708	5.9
Di-n-octyl phthalate	* 1.2668252	1.3567823	1.4122297	1.5692799	1.6050434	1.6750031			1.481	10.8
Benzo(b)fluoranthene	1.1134763	1.3500494	1.4110741	1.6410373	1.711782	1.6654161			1.482	15.7
Benzo(k)fluoranthene	1.1219027	1.0901175	1.1476787	1.256243	1.3482622	1.0988621			1.177	8.8
Benzo(a)pyrene	* 0.9130091	1.0459605	1.1124707	1.246856	1.325486	1.3353230			1.163	14.5
Indeno(1,2,3-cd)pyrene	0.9388405	1.0879011	1.1579358	1.3148578	1.4115242	1.3969189			1.218	15.5
Dibenzo(a,h)anthracene	0.7488809	0.8817741	0.9656177	1.1164426	1.2116378	1.200726			1.021	18.3

FORM VI

SW8270C

KEY-URS082 B190

Form 6

8270 (BNA) IN SOIL INITIAL CALIBRATION DATA

Lab Name: H2M LABS, INC.Contract: H2M LABS, INC.Lab Code: 10478 Case No.: KEY-URS SAS No.: SDG No.: KEY-URS082Instrument ID: HP5973NCalibration Dates: 10/1/2009 10/1/2009Heated Purge: (Y/N) NCalibration Times: 13:28 15:59GC Column: R-5SILMS ID: .25 (mm)

LAB FILE ID:	SSTD005=	N34361.D	SSTD010=	N34362.D	SSTD025=	N34360.D	SSTD040=	N34363.D	SSTD060=	N34364.D	
	SSTD080=	N34365.D									
COMPOUND	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6			RRF	% RSD	R ²
Benzo(g,h,i)perylene	0.8054024	0.9259621	0.9476809	1.0630645	1.145459	1.1368837			1.004	13.4	
2-Fluorophenol	1.1050809	1.1565159	1.1768452	1.1416358	1.2472800	1.2498642			1.180	5.0	
Nitrobenzene-d5	0.3967979	0.3396296	0.4057101	0.4175937	0.4298742	0.4090885			0.400	7.9	
Phenol-d5	1.3744595	1.4437277	1.5024318	1.5084914	1.6690489	1.6862284			1.531	8.1	
2,4,6-Tribromophenol	0.1917807	0.2186410	0.2345536	0.2365117	0.2615747	0.2653885			0.235	11.7	
2-Fluorobiphenyl	1.2952525	1.1108303	1.2767482	1.3563041	1.4604284	1.4138322			1.319	9.4	
4-Terphenyl-d14	0.8034532	0.6928560	0.813777	0.837062	0.8587790	0.8242932			0.805	7.2	
2-Chlorophenol-d4	1.2174730	1.2789067	1.3226546	1.3428644	1.4831952	1.5096455			1.359	8.5	
1,2-Dichlorobenzene-d4	0.9083108	0.7875717	0.9188484	1.0165085	1.073619	1.0143492			0.953	10.8	

* Compounds with required minimum RRF and maximum %RSD values.

All other compounds must meet a minimum RRF of 0.010.

FORM VI

SW8270C

KEY-URS082 B191

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: H2M LABS, INC.

Contract: _____

Lab Code: 10478Case No.: KEY-URS

SAS No.: _____

SDG No.: KEY-URS082Instrument ID: HP5973NCalibration Date: 9/28/200 Time: 10:55Lab File ID: \N34262R.DInit. Calib. Date(s): 08/31/09 08/31/09EPA Sample No. (SSTD050##): SSTD025Init. Calib. Times: 10:41 13:12GC Column: R-5SILMSID: .25 (mm)

COMPOUND	RRF	RRF50	MIN RRF	%D	MAX %D
Naphthalene	1.047	1.109		6.0	
2-Methylnaphthalene	0.667	0.725		8.7	
Acenaphthylene	1.991	1.927		-3.2	
Acenaphthene	1.213	1.179		-2.8	20.0
Fluorene	1.396	1.360		-2.6	
Phenanthrene	1.215	1.198		-1.4	
Anthracene	1.195	1.263		5.7	
Fluoranthene	1.193	1.270		6.4	20.0
Pyrene	1.368	1.242		-9.2	
Benzo(a)anthracene	1.164	1.111		-4.5	
Chrysene	1.016	1.051		3.4	
Benzo(b)fluoranthene	1.236	1.357		9.8	
Benzo(k)fluoranthene	0.964	1.204		24.9	
Benzo(a)pyrene	1.079	1.160		7.5	20.0
Indeno(1,2,3-cd)pyrene	1.209	1.154		-4.6	
Dibenzo(a,h)anthracene	0.945	0.961		1.7	
Benzo(g,h,i)perylene	1.079	0.930		-13.8	

All other compounds must meet a minimum RRF of 0.010.

FORM VII SV- 1

OLM04.2

KEY-URS082 B216

**SDG NARRATIVE FOR DIELECTRIC FLUIDS/
PETROLEUM HYDROCARBONS
SAMPLE(S) RECEIVED: 9/28/09
SDG #: KEY-URS082**

For Sample(s):

DGP-320 / 25-30
DGP-320 / 30-35

The above soil sample(s) was/ were analyzed for dielectric fluids and petroleum hydrocarbons. by GC/MS.

All QC data and calibrations met the requirements of EPA method 8000, and no problems were encountered with sample analysis. The following should be noted:

Multipoint calibrations and continuous calibration verifications ("CCV") were performed for Fuel Oil #2 standards.

No matrix spike/matrix spike duplicate was requested, but a lab-fortified blank (LFB) was analyzed. Fuel Oil #2 was used for spiking. The recovery indicates good method efficiency.

The depletion of straight alkanes and early eluting petroleum hydrocarbons in the samples compared to the fuel standard indicates weathering. The reported results are therefore flagged with the qualifier "X".

Concentrations in both sample exceeded the calibration range and the samples were re-analyzed at dilutions. Both sets of data are reported.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Date Reported: October 19, 2009

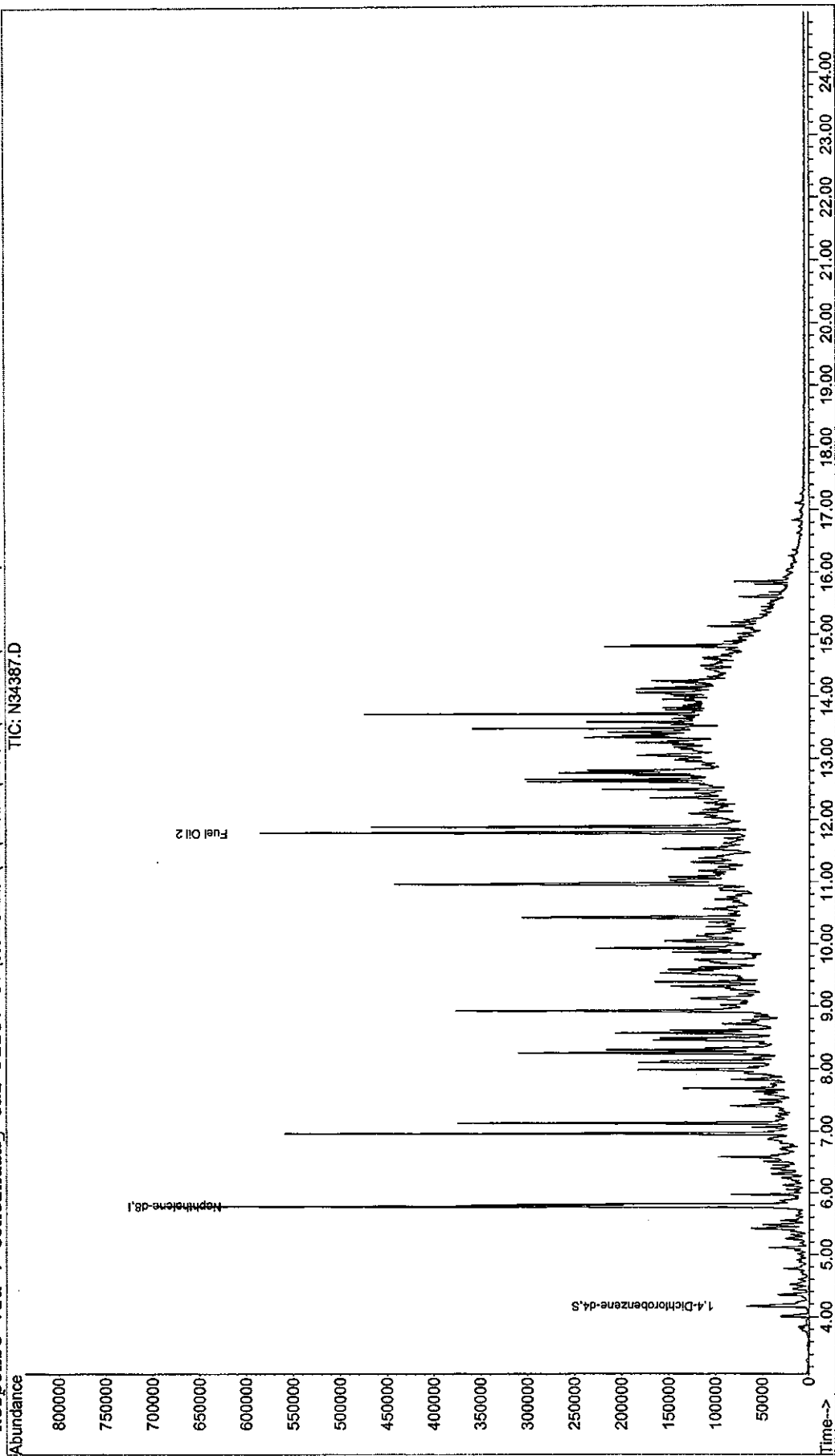
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Ursula Middel
Technical Manager

KEY-URS082 A5

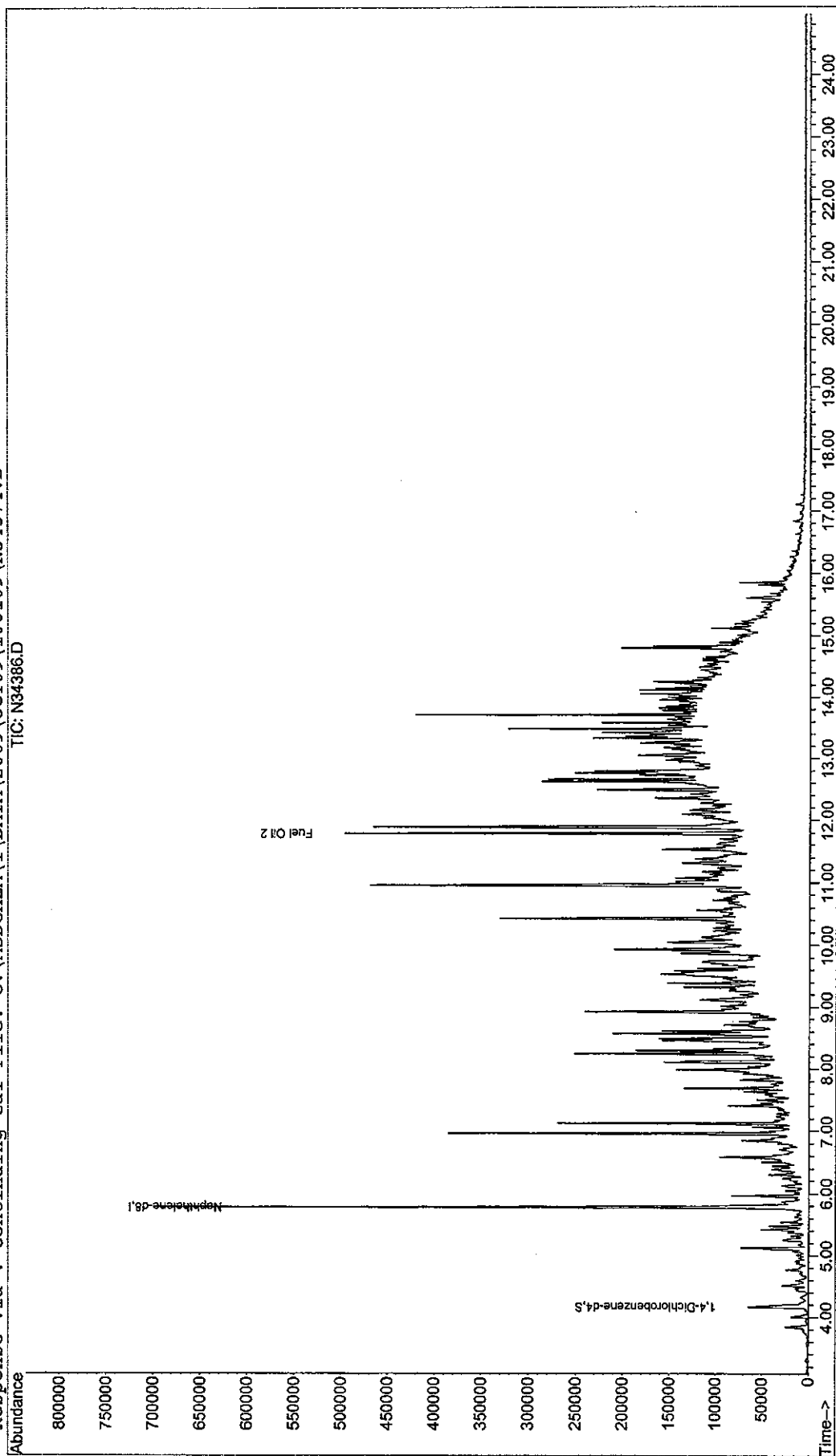
Data File : C:\MSDCHEM\1\DATA\2009\OCT09\100109\N34387.D Vial: 28
Acq On : 2 Oct 2009 3:13 Operator: BG
Sample : 0910593-002B Inst : H5973N
Misc : KEY-URS082 DGP-320/30-35DL, SOIL, DL,, 1:2 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 16 16:57 2009 Quant Results File: DF_0916.RES

Method : C:\MSDCHEM\1\METHODS\2009\DF_0916.M (RTE Integrator)
Title : CLP BNA Calibration
Last Update : Mon Oct 12 16:13:03 2009
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\2009\OCT09\100109\N34374.D



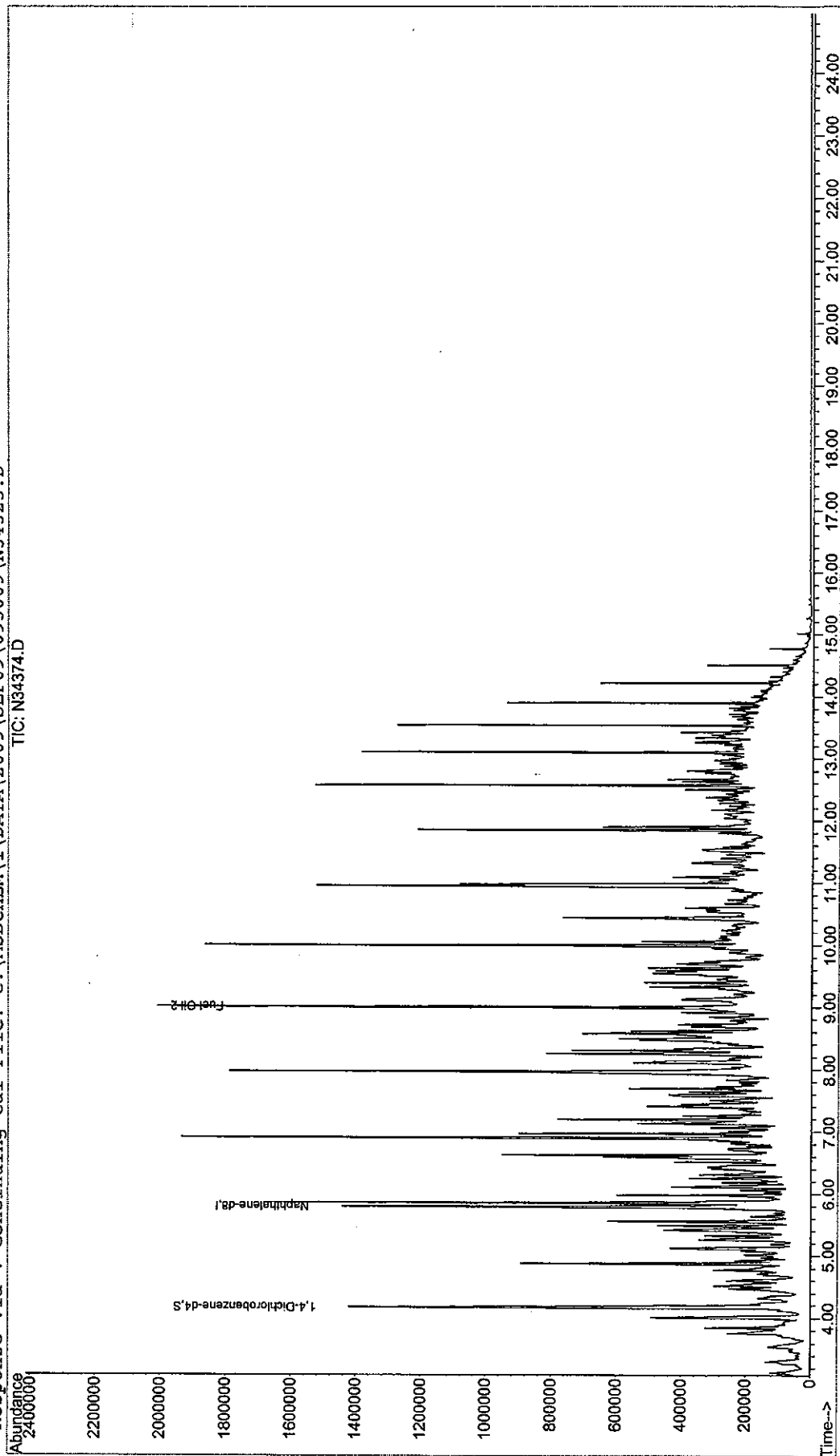
Data File : C:\MSDCHEM\1\DATA\2009\OCT09\100109\N34386.D Vial: 27
Acq On : 2 Oct 2009 2:40 Operator: BG
Sample : 0910593-001B Inst : H5973N
Misc : KEY-URS082 (DGP-320/25-30)DL,SOIL,DL,, 1:2 Multiplr: 1.00
MS Integration Params: Rteint.p
Quant Time: Oct 16 16:56 2009 Quant Results File: DF_0916.RES

Method : C:\MSDCHEM\1\METHODS\2009\DF_0916.M (RTE Integrator)
Title : CLP BNA Calibration
Last Update : Mon Oct 12 16:13:03 2009
Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\2009\OCT09\100109\N34374.D
TIC: N34386.D



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\2009\OCT09\100109\N34374.D Vial: 16
 Acq On : 1 Oct 2009 20:06 Operator: BG
 Sample : SST2500 FUEL2 Inst : H5973N
 Misc : ',,CCV,, Multiplr: 1.00
 MS Integration Params: rteint.p
 Quant Time: Oct 2 8:32 2009 Quant Results File: DF_0916.RES
 Method : C:\MSDCHEM\1\METHODS\2009\DF_0916.M (RTE Integrator)
 Title : CLP BNA Calibration
 Last Update : Mon Oct 12 16:13:03 2009
 Response via : Continuing Cal File: C:\MSDCHEM\1\DATA\2009\SEP09\093009\N34325.D
 TIC: N34374.D



PINK COPY - LABORATORY

[illegible]

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

National Grid Hempstead Spp. PDI

#11175065.00011

SAMPLERS: (signature)/Client

Apprentice Dardman URS

DELIVERABLES:

TURNAROUND TIME: *standard*

[illegible]

WHITE COPY - ORIGINAL
KEY-CURSOR 2 A3

YELLOW COPY - CLIENT

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28464

EXTERNAL CHAIN OF CUSTODY

575 Broad Hollow Rd. Melville, NY 11747-5076

Tel: (631) 694-3040 Fax: (631) 420-8436

PROJECT NAME/NUMBER

PROJECT NAME/NUMBER
Nat'l Grid Hempstead PDI

#11175065.00011

SAMPLERS: (signature)/Client

Alfred K. Marshall VRS

DELIVERABLES:

TURNAROUND TIME: *Standard*

FIELD I.D.

9-25-09	0930	501L	DGP-321/32-33
---------	------	------	---------------

Refrained by: (Signature)

Refractured by: (Signature)

Date	Time
------	------

Relinquished by: (Signature)

Relinquished by: (Signature)

Date	Time
------	------

Relinquished by: (Signature)

Relinquished by: (Signature)

Date	Time
------	------

Retinquinished by: (Signature)

Retiniquished by: (Signature)

Date	Time
------	------

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YELLOW COPY - CLIENT

PINK COPY - LABORATORY

[illegible]

PINK COPY - LABORATORY

[illegible]

APPENDIX H

PS&S Figure 2A

