					URS	Corpo	oration				TEST BORING	LOG		
						•					BORING NO:	С	SMW-1	
PROJEC	CT:					KevSn	an Hempstea	ad MGP			LOCATION:		go Prop	
CLIENT:						, 0,	KeySpan				JOB NO.:		117506	
BORING		AC	TOR:					and Nicol			DRILLING METHOD:		eoprobe	
GROUNI							CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:		40' bgs	
DATE		-			TYPE	TYPE	CAS.		COME	TOBL				
DATE	TIME	-	LE	VEL	ITPE			Macrocore			DATE STARTED:		2/04/08	
						DIA. WT.					DATE FINISHED:		2/04/08	
						FALL					DRILLER:		1 Meade	
							DOOKET D		ED DE A	DINO	GEOLOGIST:		M. Case Connar	
							POCKETP	ENETROMET			REVIEWED BY:	11.	Oominai	0
DEDT!!		- 1		SAMP		DE0		00110107	DE	SCRIPTION		1		A DI (0
DEPTH	07047	.		T)/DE	BLOWS		001.00	CONSIST			MATERIAL			ARKS
FEET	STRAT	Α		TYPE	PER 6"	RQD	COLOR	HARD			ESCRIPTION	USCS		Moist
0			S-1	Grab			Black				D, some clay and gravel, od. No visible impact.	SP	0.0	Dry
									giass, b	nick and wo	ou. No visible impact.			
1														
2														
3						1								
4														
						-								
5														
		╙	S-2	Macro		44"	Reddish		Fine to	coarse SAN	D, some medium to coarse	SP	0.0	Dry
6			3-2	core			Orange		gravel, l		b, como modium to codico	J.	0.0	Dry
0				core		_	Orange		,					
						_								
7														
8														
9														
10														
		Π	S-3	Macro		44"			Same a	s above		SP	0.0	
11				core										
12						1								
						7								
13						1								
· · ·					- -	1								
14					-	1								
14						\dashv								
15					- -	\dashv								
15		ŀ	0.1	N 4:		40"			Sama -	e above		25		
			S-4	Macro		46"			same a	s above		SP	0.0	Dry
16				core		_								
ļ						4								
17						_								
						_								
18														
19														
						7								
20						7								
Commer	nts:	:::::::i	0' to 5	' excav	ated with h	and tools.	<u> </u>	I			PROJECT NO.	1	117506	
Jonniel	1.0.	—	0								BORING NO.		SMW-1	
-		_									Borillia No.	+	OIVIVV-I	
												1		

			115	2S Cor	nora	tion			TEST BORIN	G LOC	ì	
			UF	RS Cor	pura	lion			BORING NO:		OSMW-1	
PROJECT	Γ:			Ke	ySpan H	empstead M	IGP		SHEET:		2 of 2	
CLIENT:					KeySpar	ı			JOB NO.:	•	117506	5
BORING (CONTRACT	OR:			Fe	nley and Nic	col		BORING LOCATION:	Key	Span Pro	perty
			SAMPL						DESCRIPTION			
DEPTH					REC				MATERIAL			arks
FEET	SYMBOL			PER 6"			HARD					MOIST
		S-5	1 B		48"			Fine to coars	se SAND, loose	SP	0	Dry
21			core			Orange		F: +	CAND			
										SP		
22								g. a. o., 10000				
23												
23												
24												
25												
		S-6	Macro		29"	Red		Fine to coars	se SAND, some medium to coarse	SP	0	Moist
26			core			Orange		gravel, loose	•			Wet
27												
			[
28												
29												
30												
		S-7	Macro		0"				r stuck. Material seems similar to		0	Wet
31	NoR NO. Type Per 8" Red Corange S-6 Macro Core Core											
32		S-7 Macro 0" Sample liner stuck. Material seems similar to										
33												
33												
34												
- 01												
35												
		S-8	Macro		38"	Lt. Brown		Fine to coars	se SAND, trace fine to medium gravel,	SP	0	Wet
36			I					loose				
37												
38												
39												
40									End of having at 40 ft			
40 COMMEN	ITO.						<u>I</u>	<u>I</u>			OCKANA 4	
COMMEN	113:											
									BOTTING NO.		11/506	J

						URS	Corpo	oration				TEST BORING	LOG		
							-					BORING NO:	О	SMW-2	2
PROJEC	СТ	:					KeySp	an Hempstea	ad MGP			LOCATION:	Oswe	go Prop	perty
CLIENT:	:							KeySpan				JOB NO.:		17506	
BORING	G C	CON	TRA	CTOR:					and Nicol			DRILLING METHOD:	G	eoprobe	Э
GROUNI	D١	WAT	ER:	~25'				CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:	4	45' bgs	
DATE	Ī	TIN	ΙE	LE	VEL	TYPE	TYPE		Macrocore			DATE STARTED:		2/07/08	3
	l						DIA.					DATE FINISHED:		2/07/08	
	İ						WT.					DRILLER:		Brian	
	İ						FALL					GEOLOGIST:	J. H	larshm	an
							,	POCKET P	ENETROMET	ER REA	DING	REVIEWED BY:			
	Ī				SAMP	LE				DE	SCRIPTION				
DEPTH						BLOWS	REC		CONSIST			MATERIAL		REM	IARKS
FEET	5	STR	АТА	NO.	TYPE	PER 6"	RQD	COLOR	HARD		Di	ESCRIPTION	uscs	PID	Moist
0	m		Ш	S-1	Grab			Black		Stiff, ve	ry fine sand	y SILT. No visible impact.	ML	0.0	Moist
_	1						1					•			
1	Ш						1								
	ı														
2	I														
_	ı						-								
3	I														
	ı						-								
4	Ш						-								
	ı						-								
5	Ш						-								
Ů	ı			S-2	Macro		50"	Black -		5' to 7'.	Stiff, verv fir	ne sandy SILT.	ML	0.0	Moist
6	Ш			0 2	core		- 30	Brown		,	, ,		IVIL	0.0	to Dry
- O	Ш				COIC		-	Diowii							to Diy
7	Ш						-								
	111						-	Lt. Brown		7' to 10'	. Loose, fine	e to coarse SAND, little very	SP	0.0	Dry
8							-	/ Yellow				fine to coarse gravel, faint	31	0.0	Diy
- O							-	/ TCHOW		petroleu	ım-type odo	r at 8' to 10'.		25.0	
9							-							25.0	
3							-								
10							-								
-10	1			S-3	Macro		48"	Lt. Brown		Loose	fine to very	coarse SAND, little fine to	SP	25.0	Dry
11				0-0	core		- 40	/ Yellow				petroleum-type odor. No	J.	25.0	Diy
	1				COIC		-	/ Orange		visible i	mpact, no s	taining.			
12							-	Orange							
12	1						-								
13							-							50.0	
	1						1							33.0	
14	1						1								
	1						1								
15	1						1								
.5	1			S-4	Macro		38"	Lt. Brown		15' to 1	7', Loose. fir	ne to coarse SAND, trace fine	SP	1.0	Dry
16	1				core		⊣ ິ	/ Grey		gravel.	, , , , , , , , , , , , , , , , , , , ,		Ji.	'.0	ر بر ر
	1				5510		1	,							
17	1						1								
- 	1						1	Black		17' to 18	B' ,Loose. fir	ne to medium SAND, trace fine	SP	25.0	Moist
18	1						1	Staining			Little stainin]	25.0	IVIOISE
	1						┪	Brown		18' to 20	0'. Loose fin	e to very coarse SAND, trace	SP	50.0	Moist
19	ł						┪	trace				Frace staining, faint odor.	Ji-	30.0	IVIOISE
19	l						-1	Black							
20	1							Staining							
-	l n+c			0' to 5	' excav	ated with h	and tools	SP 10' to 15	' HCN·2			PROJECT NO.	4 -	17500	
Commen	11(S	٠.			. UNUAV	CIOU WILLIII	ana 10013.	5. 10 10 13	. 1014.2.			BORING NO.		117506! SMW-2	
				•								DONING NO.		SIVIVV-2	
														l	

			111	26.60	(DO (O)	tion			TEST BORIN	G LOC		
			UF	RS Coi	pora	lion			BORING NO:		OSMW-2	2
PROJECT	Γ:			K	eySpan H	empstead M	IGP		SHEET:		2 of 3	
CLIENT:					KeySpar	า			JOB NO.:		117506	5
BORING (CONTRACT	OR:			Fe	nley and Nic	ol		BORING LOCATION:	KeyS	Span Pro	perty
			SAMPL	.E					DESCRIPTION			
DEPTH	STRATA			BLOWS	REC		CONSIST		MATERIAL		Rem	arks
FEET	SYMBOL	NO.	TYPE	PER 6"	RQD	COLOR	HARD		DESCRIPTION	USCS	PID	MOIST
21		S-5	Macro core		46"	Brown little Black Staining			o coarse SAND, little fine to coarse staining and coating, moderate pe odor.	SP	50	Moist
23						Otalling					60	
24											100	Wet
26 27 28		S-6	Macro core		39"	Brown some Black Staining			pose, fine to coarse SAND, little to ravel. Petroleum-type impact, some derate odor.	SP	150	Wet
29						Brown		SAND some coating, DNA	eavy MGP impact: Fine to coarse fine gravel. MGP staining and APL present, 50% to 70% DNAPL noderate odor. Liner stained with	SP	200	Wet
Coating, DNA saturation, m DNAPL. S-7 Macro 39" Brown Heavy MGP i some fine to thin seams o 50% DNAPL							impact: Fine to very coarse SAND coarse gravel. MGP staining, several of 100% DNAPL saturation, 25% to saturation through out. Stained and lerate to strong MGP odor, liner	SP	160	Wet		
35 36 37		S-8	Macro core		38"	Lt. Brown		some fine to staining, 100 liner stained.		SP	160 170	Wet
38						Orange / Brown			oose, fine to coarse SAND, trace fine odor, no staining.	SP	3	Wet
COMMEN						HCN:3. SP 3	0' to 35', HCN	I:6 and	PROJECT NO.	•	OSMW-2	2
		H ₂ S:1.	SP 35'	to 40' HCN	3.				BORING NO.		117506	

			115	25 Ca	rnoro	tion			TEST BORIN	G LOC	ì	
			UF	13 00	грога	lion			BORING NO:		OSMW-2	2
PROJECT	Γ:			ŀ	KeySpan H	empstead M	GP		SHEET:		3 of 3	
CLIENT:					KeySpa				JOB NO.:		1117506	
BORING (CONTRACT	OR:			Fe	nley and Nic	ol		BORING LOCATION:	KeyS	Span Pro	perty
			SAMPL					•	DESCRIPTION		1	
DEPTH							CONSIST		MATERIAL			arks
FEET	SYMBOL			PER 6"	RQD	COLOR	HARD		DESCRIPTION	USCS	PID	MOIST
		S-9			45"	Lt. Brown			o medium SAND, little coarse sand, avel. No odors or impact.	SP	0.6	Wet
41			core			/ Orange		liace inte gra	avei. No odors or impact.			
					4							
42					4							
40			•		-							
43					-							
44					-							
77					-							
45			ŀ		-							
	46 47 48 49 50 51			+				End of boring: 45' bgs				
46									gg.			
			•									
47			•									
48												
49					_							
					4							
50					_							
51					-							
31					-							
52			ŀ		-							
			1		-							
53												
			ľ									
54												
55					_							
56					4							
					4							
57					4							
F0					-							
58					-							
59			}		1							
			ŀ		1							
60					1							
COMMEN	TS:				•				PROJECT NO.		OSMW-2	2
	STRATA SYMBOL NO. TYPE PER 6" S-9 Macro core							BORING NO.		1117506		

PROJECT:					URS	Corpo	oration				TEST BORING	LOG		
SOURCE S						-					BORING NO:	C	SMW-3	3
Depty Dept	ROJEC	T:				KeySp	an Hempstea	ad MGP			LOCATION:	Oswe	go Pro	perty
SORING CONTRACTOR: Fenley and Nicol SORILING METHOD: Geoptic						-7-1-								
SROUNDATER: -25 bgs			CTOR	:				and Nicol						
DATE TIME LEVEL TYPE DIA. Macrocore DATE STARTED: 0.20708	ROUND	OWATER:	~25' k	oas					CORE	TUBE	TOTAL DEPTH:	4	15' bas	
DIA. DATE FINISHED: 02:0706 WTT. DRILLER: Britan					TYPE	TYPE				_				3
NT. GRILLER: Brant Brant FALL GEOLOGIST: J. Harshnar GEOLOGIST: J. H						_								
SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE SAMPLE STRATA NO. TYPE PECT STRATA S-1 Grab S-1 Grab S-1 Grab S-1 Grab S-1 Grab S-2 Macro Core Co														
SAMPLE SAMPLE SAMPLE SAMPLE STRATA NO. TYPE PER 6" ROD COLOR HARD STRATA NO. TYPE PER 6" ROD COLOR HARD STRATA NO. TYPE PER 6" ROD COLOR HARD STRATA NO. TYPE PER 6" ROD COLOR HARD SITE MATERIAL DESCRIPTION S-1 Grab S-1 Grab S-2 Macro S-2 Macro S-2 Macro S-3 Macro S-3 Macro S-4 Macro S-4 Macro S-5 Macro S-6 Macro S-7 Macro S-7 Macro S-7 Macro S-8 Macro S-8 Macro S-9 Macro S-9 Macro S-9 Macro S-9 Macro S-9 Macro S-9 Macro S-9 Macro S-9 Macro S-1 Macro S-1 Macro S-1 Macro S-2 Macro S-3 Macro S-3 Macro S-4 Macro S-4 Macro S-4 Macro S-5 Macro S-7 Macro S-7 Macro S-7 Macro S-8 Macro S-8 Macro S-9 Macro S												J. F		an
SAMPLE DESCRIPTION DESCR						_	* POCKET P	ENETROMET	ER REA	DING				
DEPTH STRATA NO. TYPE BLOWS REC COLOR HARD DESCRIPTION USCS PID IN STRATA NO. TYPE PER 6" ROD COLOR HARD DESCRIPTION USCS PI				SAMP	LE									
STRATA NO. TYPE PER 6" RQD COLOR HARD DESCRIPTION USCS PID 1 S-1 Grab SILCK Stiff, very fine sandy SILT. Some fine to coarse orrange sand at 4. SIMIL 0.0 orrange sand sand simil to very coarse SAND, little to some fine to coarse gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand, trace to little fine gravel. No impact. SIMIL 0.0 orrange sand. Staining, petroleum-type orrange sand. Staining, petroleum-type odor.	DEPTH					REC		CONSIST					REM	IARKS
S-1 Grab Black Stift, very fine sandy SILT. Some fine to coarse ML 0.0 orange sand at 4'. S-2 Macro 40' Brown and core 1.L. Brown to O'range 1. Brown and core 1.L. Brown to O'range 1.L. Brown to O'range 1.L. Brown core 1.L. Brown core 1.L. Brown to O'range 1.L. Brown to O'range 1.L. Brown core 1.L. Brown core 1.L. Brown core 1.L. Brown to O'range 1.L. Brown to O'range 1.L. Brown core 1.L. Brown core 1.L. Brown to O'range 1.L. Brown to O'range 1.L. Brown core 1.L. Brown core 1.L. Brown to O'range 1.L.		STRATA	NO.	TYPE			COLOR					uscs		Moist
orange sand at 4'. 1			_						Stiff, ve					Moist
1			3-1	Grab		-	DIACK				VOILT. COME INIC to coarse	IVIL	0.0	
S-2 Macro	_					-								to Dry
S-2 Macro 40° Brown and Lt. Brown to Orange S-3 Macro 40° Lt. Brown to Orange S-3 Macro 42° Lt. Brown core 42° Lt. Brown sand, trace to little fine gravel. No impact. S-3 Macro 42° Lt. Brown core 53° Macro 65° Mac														
3 4 5 S-2 Macro 40° Brown and Lt. Brown to Orange 7 8 8 9 10 S-3 Macro 42" Lt. Brown core 7 7 11 12 13 14 15 15 S-4 Macro 7 16 18 19 19 10 10 17 18 18 19 19 10 10 10 11 11 15 15 16 17 18 18 19 19 10 10 10 11 11 15 16 17 18 18 19 19 10 18 19 19 10 10 10 11 11 15 16 17 18 18 19 19 19 20 10 10 10 10 11 11 12 12 13 14 15 15 16 17 18 18 19 19 20 20 20 20 20 20 20 20 20 20 20 20 20	_													
S-2 Macro	2					4								
S-2 Macro														
S.2 Macro	3					4								
S.2 Macro						4								
S-2 Macro core	4													
S-2 Macro core														
Comments: Core Lt. Brown to Orange Lt. Brown to Core Lt. Brown to Core	5								<u> </u>				 	<u> </u>
to Orange S-3 Macro 42" Lt. Brown Loose, fine to coarse SAND, little very coarse SP 0.0			S-2	Macro		40"	Brown and			-		SP	0.0	Dry
S:3 Macro dore Lt. Brown core SAND, little very coarse sand, trace to little fine gravel. No impact. S:4 Macro dore S:4 Macro	6			core			Lt. Brown		fine to c	oarse grave	el. No impact.			
8 9 10 S-3 Macro							to Orange							
S-3 Macro	7													
S-3 Macro						1								
S-3 Macro	8													
S-3 Macro														
S-3 Macro	9													
S-3 Macro core // Orange Lt. Brown / Orange Sp 0.0 S-4 Macro 37"						1								
S-3 Macro core Core Core Core Core Core Core Core C	10					-								
S-4 Macro 37" Lt. Brown 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. SP 0.0			S-3	Macro	-	42"	It Brown		Loose.	fine to coars	e SAND, little very coarse	SP	0.0	Dry
12 13 14 15 S-4 Macro ore 7 16 17 Black and Brown Staining 19 20 Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	11		00		-							01	0.0	Diy
13 14 15 15 S-4 Macro core 7 16 17 Black and Brown Staining 8 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. SP 28.0 SP 28.0 PROJECT NO. 11175065				COIC		-	Orange							
13 14 15 S-4 Macro	12					-								
15 to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. S-4 Macro core 7 Orange 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. 17 to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. SP 28.0 Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	14					-								
15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. S-4 Macro core 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. SP 28.0 Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	12				- 	-1								
S-4 Macro core 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. 19	10					-1								
S-4 Macro core The late of the						-								
S-4 Macro core 37" Lt. Brown / Orange 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. SP 0.0	14					4								
S-4 Macro core 37" Lt. Brown / Orange 15' to 17', Loose, fine to coarse SAND, little very coarse sand, trace to little fine gravel. No impact. SP 0.0						4								
Core / Orange / Orange / Orange / Orange / Orange / Orange / Coarse sand, trace to little fine gravel. No impact. / Orange / I7' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. / SP 28.0 / Orange	15			ļ.,			1 .		45	71.1	CAND "			
17 Black and Brown Staining 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. Sp 28.0 medium SAND, trace coarse sand. Staining, petroleum-type odor. O' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065			S-4			37"						SP	0.0	Dry
Black and Brown Staining 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor. Sp 28.0 Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	16			core		_	/ Orange		coarse	sanu, irace i	to intile fine graver. No impact.			
Black and Brown Staining 17' to 20', Petroleum-type impact: loose fine to medium SAND, trace coarse sand. Staining, petroleum-type odor.						_								
Brown Saining medium SAND, trace coarse sand. Staining, petroleum-type odor. 19	17													
petroleum-type odor. Staining petroleum-type odor. O' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065							Black and					SP	28.0	Dry
20 Staining Staining PROJECT NO. 11175065	18						Brown							
20 Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065							Staining		petroiet	ııı-ıype odo	i.			
Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	19					7								
Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065						1								
Comments: 0' to 5' interval excavated by hand tools. SP 17' to 20' HCN:1 PROJECT NO. 11175065	20					7								
		ıts:	0' to 5	5' interv	al excavate	d by hand	tools. SP 17	" to 20' HCN:1			PROJECT NO	11	17506	5
IRORING NO CSMW-3	Sminitill		•			,					BORING NO.		SMW-3	
Bonna No. Osww-5			•										J.V. V V 2	

			IIE	RS Cor	nora	tion			TEST BORIN	G LOC	ì	
			01	10 001	pora	.1011			BORING NO:	(OSMW-3	}
PROJECT	T:			Ke	ySpan H	empstead M	IGP		SHEET:		2 of 3	
CLIENT:					KeySpar				JOB NO.:	1	117506	5
BORING (CONTRACT	OR:			Fe	nley and Nic	ol		BORING LOCATION:	KeyS	Span Pro	perty
			SAMPL				•		DESCRIPTION			
DEPTH	STRATA			BLOWS	REC		CONSIST		MATERIAL			arks
FEET	SYMBOL	NO.	TYPE	PER 6"	RQD	COLOR	HARD		DESCRIPTION	USCS	PID	MOIST
21		S-5	Macro core		36"	Lt. Brown / Orange / Tan Black		SAND, little f	pe impact: Loose, fine to medium ine to coarse gravel at 24' to 25'. 0' to 21'. Slight petroleum-type odor.	SP	46	Dry
23						Staining						
25		S-6	Macro		39"	Brown			etroleum-type impact: Loose fine to SAND, trace fine gravel. Staining,	SP	50	Wet
26			core			little Black Staining			troleum-type odor.		135	
28												
30						Brown Staining		SAND, trace	GP impact: loose fine to medium fine gravel. MGP staining, trace to 25% saturation, moderate odor, liner	SP	160	Wet
31		S-7	Macro core		32"	Black and Brown Staining		fine GRAVEL strong MGP	ed: Loose fine to coarse SAND and ., with cobbles. Stained and coated, odor. 30' to 32' 50% DNAPL 2' to 35' 10% DNAPL saturation.	GP/SP	150	WET
33											200	
34												
36		S-8	Macro core		34"	Brown Staining		75% DNAPL	ose fine to medium SAND. Stained saturated, strong odor.	SP	280	Wet
37						Brown / Orange			ose, fine to medium SAND, trace trace fine gravel. No staining.	SP	3	Wet
39								39' to 40', Fir 100% DNAP	ne SAND, trace gravel. Thin seam of L saturated.	SP	100	Wet
COMMEN	ITS:				25' to 30',	HCN:2. GP/	/SP 30' to 35',	HCN:2. SP	PROJECT NO.		OSMW-3	3
		35' to	40' HCN	l:1.					BORING NO.	1	117506	5

Commette: Commette: Commette: Commette: Commette: Commett: Commette: Comme				115	25 C	ornora	tion		TEST BORING	G LOC	à	
Martin Supplementation S				<u> </u>	13 0				 BORING NO:		OSMW-3	3
SORING CONTRACTOR: Femily and Nicol SORING LOCATION: KeySpan Property	PROJECT	:						IGP	SHEET:		3 of 3	
SAMPLE S	CLIENT:											
STRATA NO. TYPE PER 6" ROD COLOR MARD DESCRIPTION USCS PID MOIST	BORING (CONTRACT				Fe	nley and Nic	ol		KeyS	Span Pro	perty
SYMBOL NO. TYPE PER 6" ROD COLOR MARD DESCRIPTION USCS PID MOIST				SAMPL								
S-9 Macro												-
41 42 43 44 45 46 47 47 48 49 49 49 49 49 49 49	FEET	SYMBOL			PER 6			HARD				
No oders or impact.	41		S-9			35"				SP	0	Wet
43 44 44 45 46 47 48 48 49 49 50 50 51 51 52 53 53 54 60 60 COMMENTS:	41			COIE		\dashv	Orange			i		
44 45 46 48 49 49 49 50 50 51 51 52 53 53 54 55 56 56 56 56 57 57 58 58 59 60 COMMENTS:	42					\neg				i		
44 45 46 48 49 49 49 50 50 51 51 52 53 53 54 55 56 56 56 56 57 57 58 58 59 60 COMMENTS:				[i		
45	43					_					ı	
45	44				-+	_					ı	
## Find of boring: 45' bgs ## Find of boring: 45				i		\dashv				i		
46 47 48 48 49 50 50 51 52 52 53 53 54 54 55 55 56 56 57 57 57 57 60 COMMENTS:	45											
47 48 48 49 50 51 51 52 53 54 54 55 56 66 57 58 60 COMMENTS:						_			End of boring: 45' bgs			
48 49 50 51 51 52 53 53 54 54 55 56 57 58 58 59 60 COMMENTS: PROJECT NO. OSMW-3	46					_					ı	
48 49 50 51 51 52 53 53 54 54 55 56 57 58 58 59 60 COMMENTS: PROJECT NO. OSMW-3	47			i		\dashv					ı	
49		45 46 47 48 49				\dashv						
50 51 51 52 53 54 54 55 56 57 57 58 59 60 COMMENTS:	48			[i		
50 51 51 52 53 54 54 55 56 57 57 58 59 60 COMMENTS:	40					_				i		
51 52 53 53 54 55 55 56 60 57 59 60 COMMENTS: PROJECT NO. OSMW-3	49				\dashv	\dashv				i		
52 53 54 55 55 55 57 57 58 59 60 COMMENTS: PROJECT NO. OSMW-3	50			1 1		_				i		
52 53 54 55 55 55 57 57 58 59 60 COMMENTS: PROJECT NO. OSMW-3										i		
53 54 54 55 55 56 60 59 60 COMMENTS: PROJECT NO. OSMW-3	51									i		
53 54 54 55 55 56 60 59 60 COMMENTS: PROJECT NO. OSMW-3	F.0				_	_				i		
54 55 55 56 57 58 59 60 COMMENTS: PROJECT NO. OSMW-3	52				-+	\dashv				i		
55 56 57 58 59 60 COMMENTS: PROJECT NO. OSMW-3	53			1 1		_				i		
55 56 57 58 59 60 COMMENTS: PROJECT NO. OSMW-3				i i						i		
56	54									i		
56						_				i		
57 58 59 60 COMMENTS: PROJECT NO. OSMW-3	55					_				i		
57 58 59 60 COMMENTS: PROJECT NO. OSMW-3	56			i		_				i		
58 59 60 COMMENTS: PROJECT NO. OSMW-3				1 [i		
59 60 PROJECT NO. OSMW-3	57			[i		
59 60 PROJECT NO. OSMW-3						_				i		
	58				_	_				i		
	59			1		-				i		
COMMENTS: PROJECT NO. OSMW-3	- 55									i		
BORING NO. 11175065	COMMEN	TS:							PROJECT NO.			
									BORING NO.	1	117506	5

BORING NO: HISB-E					URS	Corp	oration				TEST BORING L	.OG		
CLIENT: KeySpan JOB NO: 111750 Geograph Geograp						•					BORING NO:	H	IISB-80)
CLIENT:	OJECT	Г:				KeySp	an Hempste	ad MGP			LOCATION:	Interse	ection S	Street
SORING CONTRACTOR:	ENT:										JOB NO.:	11	17506	5
DATE TIME LEVEL TYPE TYPE Macrocore DATE STARTED: 0.1/188 0.	RING C	CONTRAC	CTOR:					and Nicol				G	eoprob	е
DIA DATE FINSHED: 0.1181 O1.181	OUNDV	WATER:					CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:		15' bgs	
DIAL DATE FINISHED: 0.1180 M. Mes	ATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE STARTED:	0	1/18/08	3
WT.						_								
FALL POCKET PENETROMETER READING REVIEWED BY:														
SAMPLE SAMPLE SAMPLE STRATA NO. TYPE STRATA NO						FALL					GEOLOGIST:			
DEPTH FEET STRATA No. TYPE BLOWS REC ROD COLOR CONSIST MARTERIAL DESCRIPTION USCS PIL							* POCKET P	ENETROMET	ER REAL	DING	REVIEWED BY:			
STRATA NO. TYPE PER 6" ROD COLOR HARD DESCRIPTION USCS PIC				SAMP	LE				DI	ESCRIPTIO	N			
S-1 Grab Dik. Brown 0" to 1", Loamy SAND. SP 0.0	PTH				BLOWS	REC		CONSIST			MATERIAL		REM	IARKS
1	EET S	STRATA	NO.	TYPE	PER 6"	RQD	COLOR			1	DESCRIPTION	USCS		Moist
1			_				Dk. Brown		0' to 1', l			SP	0.0	
Crange / Brown						7				-				
Orange / Brown 1' to 5', Fine to medium SAND. SP 0.0	1					7								
S-2 Macro 46* Lt. Brown S' to 8', Loose, fine to coarse SAND, some fine gravel. SP 0.0						-	Orange /		1' to 5', I	ine to med	ium SAND.	SP	0.0	Dry
3	2					1	_		1]		
S-2 Macro A6" Lt. Brown S' to 8', Loose, fine to coarse SAND, some fine gravel. SP 0.0						1								
S-2 Macro A6" Lt. Brown S' to 8', Loose, fine to coarse SAND, some fine gravel. SP 0.0	3					-								
S-2 Macro 46" Lt. Brown 5' to 8', Loose, fine to coarse SAND, some fine gravel, SP 0.0						1								
S-2 Macro 46" Lt. Brown 5' to 8', Loose, fine to coarse SAND, some fine gravel, SP 0.0	4					-								
S-2 Macro ore Lt. Brown To least one least of the least	-					-								
S-2 Macro 46" Lt. Brown S' to 8', Loose, fine to coarse SAND, some fine gravel. SP 0.0	5					-								
Core	_		S-2	Macro		46"	It Brown		5' to 8', I	_oose, fine t	to coarse SAND, some fine gravel,	SP	0.0	Wet
To To To To To To To To	6		0.2			⊣ 'ĭ	Lt. Drown				,	O.	0.0	WCt
B	Ť			0010		-								
B	7													
Lt. Brown S' to 10', Loose, fine to medium SAND, trace fine gravel. No impacts. SP 0.0	<u> </u>					-								
Lt. Brown S' to 10', Loose, fine to medium SAND, trace fine gravel. No impacts. SP 0.0	8					-								
9	Ť					-	It Brown		8' to 10'.	Loose, fine	e to medium SAND, trace fine	SP	0.0	Dry
10 S-3 Macro	9					-	Lt. Drown				, , , , , , , , , , , , , , , , , , , ,	Oi	0.0	Diy
S-3 Macro	-					-								
S-3 Macro	10					-								
11 core	· —		S-3	Macro		42"	It Brown		Loose, f	ine to very o	coarse SAND, some fine to coarse	SP	0.0	Dry
12	11					┨ ¨						O.	0.0	D.y
12						-								
13	12					-	, Grange							
14						-								
14	13					-								
15 End of boring: 15' bgs 16						-								
15 End of boring: 15' bgs 16	14					-								
16 End of boring: 15' bgs 17 18 19 19 20						-								
16 End of boring: 15' bgs 17 18 19 19 20	15					-								
16 17 18 19 20							1	†		Fnc	d of boring: 15' bas			
17 18 19 20	16					-				Line	2 0. 20mig. 10 bg0			
18	_					1								
18	17					1								
19 20	_					1								
19 20	18					1								
20						1								
20	19					-								
	20					-								
		s.	0' to 5	' excav	ated by ha	nd tools.	<u>I</u>	I.	I		PROJECT NO	11	17506	5
BORING NO. HISB-		<u>. </u>		2									IISB-80	
Boring No. 1110D-0												'		

				UR	S Corpo	oration				TEST BORING	G LOG		
										BORING NO:	H	HSB-81	
PROJEC	CT:				KeySp	an Hempstea	ad MGP			LOCATION:	Inters	ection S	Street
CLIENT:					, ,	KeySpan				JOB NO.:		117506	
	CONTRAC	CTOR					and Nicol			DRILLING METHOD:		eoprob	
	DWATER:					CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:		15' bgs	
DATE	TIME	1.5	VEL	TYPE	TYPE	OAO.	•	COILE	TOBL				
DATE	IIIVIE	LE	VEL	ITPE			Macrocore			DATE STARTED:		1/18/08	
					DIA.					DATE FINISHED:		1/18/08	
					WT.					DRILLER:		. Mead	
					FALL					GEOLOGIST:	J. F	Harshm	an
					•	POCKET P	ENETROMET			REVIEWED BY:			
			SAMP					DES	SCRIPTION				
DEPTH				BLOW			CONSIST			MATERIAL		_	IARKS
FEET	STRATA	NO.	TYPE	PER 6	" RQD	COLOR	HARD		D	ESCRIPTION	USCS	PID	Moist
0		S-1	Grab			Dk. Brown		0' to 2' l	oamy topso	oil	SP	0.0	
			İ										
1			ľ										
<u> </u>			ŀ		_								
			ŀ										
2								2' +o F'	Looso fin-	to coarco SAND cama fin-			_
						Lt. Brown		gravel.	Loose, fine	to coarse SAND, some fine	SP	0.0	Dry
3								graver.			1		
4													
5			l										
		S-2	Macro		52"	Lt. Brown /		Loose,	fine to coars	se SAND, trace very coarse	SP	0.0	Dry
6		0 -	core		_ ~	Yellowish				vel. No visiable impacts.	0.	0.0	D.,
			COIC			TOHOWISH							
-													
7													
8													
9													
			l										
10			İ										
		S-3	Macro		53"	Lt. Brown		Loose.	fine to coars	se SAND, trace very coarse	SP	0.0	Dry
11		00	core		- 30	/ Brown /				led fine gravel. No visible	31	0.0	Diy
			core					impacts		v			
						Dk. Brown							
12													
13											1		
											1		
14													
15													
							Ì	i	End (of boring: 15' bgs	1		Ì
16									Liid	or coming. To bys			
10													
<u> </u>													
17											1		
18													
19													
											1		
20											1		
	ate:	O' to F	' eveav	ated by h	nand tools.	<u> </u>	<u> </u>			PROJECT NO.	1 4.	117506	<u> </u>
Commen	แร:	5 10 5	- Encav	aled by I	اماالا الالالة.						_		
										BORING NO.	<u> </u>	IISB-81	
										<u> </u>		<u> </u>	

				UF	RS (Corpo	ration				TEST BORING	LOG		
											BORING NO:	F	IISB-82	
PROJEC	T:					KeySp	an Hempstea	ad MGP			LOCATION:	Interse	ection S	Street
CLIENT:							KeySpan				JOB NO.:	11	17506	5
BORING	CONTRAC	CTOR:	:				Fenley a	and Nicol			DRILLING METHOD:	G	eoprob	Э
GROUNI	DWATER:						CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:		15' bgs	
DATE	TIME	LE	VEL	TYF	PΕ	TYPE		Macrocore			DATE STARTED:		1/07/08	}
						DIA.					DATE FINISHED:	0	1/07/08	}
						WT.					DRILLER:		Charlie	
						FALL					GEOLOGIST:	J. F	larshm	an
							POCKET P	ENETROMET	ER REA	DING	REVIEWED BY:			
			SAME	LE					DES	SCRIPTION				
DEPTH				BLO	ws	REC		CONSIST	1		MATERIAL		REN	IARKS
FEET	STRATA	NO.	TYPE	PER		RQD	COLOR	HARD			ESCRIPTION	uscs		Moist
0		S-1	Grab				Dk. Brown		0' to 2'	Loamy tops		SP	0.0	
U		3-1	Grab				DK. BIOWII		0 10 2,	Loamy tops	on.	35	0.0	
-														
1														
2				igsqcut						_,	0.441B			
							Lt. Brown		2' to 5',	Fine to coar	rse SAND, some fine gravel.	SP	0.0	Dry
3														
4														
5														
		S-2	Macro			52"	Lt. Brown		Loose, f	ine to coars	se SAND, trace very coarse	SP	0.0	Dry
6		-	core				/ Orange				led fine to coarse gravel.			٥.,
Ů			0010				/ Yellow							
7							/ Tellow							
/														
_														
8														
9														
10														
		S-3	Macro			56"	Lt. Brown				e SAND, trace very coarse	SP	0.0	Dry
11			Core				/ Orange		sand, lit visible ii		led fine to coarse gravel. No			
							/ Yellow		VISIDIE	прасіъ.				
12														
13														
14				\vdash										
<u> </u>				 										
15				┝										
15				\vdash						- ·	of bordon, 451 laws	1		
40				-						End o	of boring: 15' bgs			
16				$\vdash \vdash$										
17				igsqcut										
18														
19														
20														
Commer	nts:	0' to 5	o' excav	ated by	/ hand	tools.	<u> </u>	<u> </u>			PROJECT NO.	11	17506	5
3011111161											BORING NO.	1	IISB-82	
												'		
											1			

				U	IRS (Corpo	ration				TEST BORING	LOG		
						-					BORING NO:	H	HSB-83	}
PROJEC	T:					KevSp	an Hempstea	ad MGP			LOCATION:	Inters	ection S	Street
CLIENT:						٠, - ا	KeySpan	••			JOB NO.:		117506	
	CONTRAC	CTOR						and Nicol			DRILLING METHOD:		eoprob	
	DWATER:						CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH:		15' bgs	
DATE	TIME	1.5	VEL	T۱	/PE	TYPE	OAO.	Macrocore	CONE	TODE	DATE STARTED:		1/16/08)
DATE	IIIVIE	LE	VEL	- ' '	FE	DIA.		Macrocore						
-						WT.					DATE FINISHED:		1/16/08 I. Mead	
						FALL					DRILLER:			
							DOCKET D	L	ED DE A	DINC	GEOLOGIST:	J. F	Harshm	an
							POCKETP	ENETROMET			REVIEWED BY:		1	
			SAMP						DE	SCRIPTION				
DEPTH	070474		TVD=		ows	REC	001.00	CONSIST			MATERIAL			IARKS
FEET	STRATA	NO.	TYPE	PE	R 6"	RQD	COLOR	HARD	011 01		ESCRIPTION	USCS	PID	Moist
0		S-1	Grab				Dk. Brown		0' to 2',	Loamy tops	60II.	SP		
1														
2														
						1	Lt. Brown				rse SAND, some fine gravel.	SP	3.0	Moist
3									Undeter	mined odor				
						1								
4					1	1								
						1								
5														
		S-2	Macro			48"	Lt. Brown		Loose, t	fine to coars	se SAND, little well graded fine	SP	75.0	Dry
6		0-2	core			40	Lt. Diowii				strong hydrocarbon (degraded	01	75.0	Diy
0			core			4					or. Jar shake test: No sheen.			
7														
/														
_														
8														
9														
10														
		S-3	Macro			50"	Brown /				coarse SAND, little well graded		250.0	Dry
11			core				Lt. Brown				petroleum-type odor, no visible test: No sheen.			
							/ Grey		Stairing	. Jai Silake	test. No sheen.			
12														
						1								
13						1								
14														
15					1	1								
					1			: 		End a	of boring: 15' bgs		Ì	
16					1	1				Liid	o. 20.111g. 10 bgo			
						ł								
17						1								
17						ł								
10						ł								
18						4								
					<u> </u>									
19														
20														
Commer	nts:						P 5' to 10', S	sample submit	ted to lab	o. SP 10' to	PROJECT NO.	11	117506	5
		15' sa	ample s	ubmitt	ed to I	ab.					BORING NO.	H	HISB-83	