

URS Corporation								TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP								BORING NO: IPR-1					
CLIENT: KeySpan								LOCATION: KeySpan Property					
BORING CONTRACTOR: Fenley and Nicol								JOB NO.: 11175065					
GROUNDWATER:								CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 45'	
DATE	TIME	LEVEL	TYPE	TYPE	Temp.	Macrocore			DATE STARTED: 01/07/08				
				DIA.	3"	2"			DATE FINISHED: 01/07/08				
				WT.					DRILLER: C. Guzzardo				
				FALL					GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING								REVIEWED BY: K. Connare					
DEPTH FEET	SAMPLE					DESCRIPTION							
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS			
										PID	Moist		
0		S-1	Grab		N/A	Dk. Brown		0' to 3', Fine to medium SAND and some fine to coarse gravel.	SP	0.0	Dry		
1													
2													
3													
4						Lt. Brown		3' to 5', Fine to coarse SAND, little to some fine to coarse gravel.	SP		Dry		
5													
6		S-2	Macro core		56"	Lt. Brown / Yellow		5' to 7', Loose, fine to very coarse SAND, little fine to coarse gravel.	GP	0.0	Dry		
7													
8						Brown /Dk. Brown /Tan		7' to 10', Loose to medium dense, intervals brown/dark brown/tan fine to coarse SAND, some fine gravel.	SP	0.0	Dry		
9													
10													
11		S-3	Macro core		46"	Yellow / Orange		Losse, fine to medium SAND, trace to little fine gravel.	SP	0.0	Dry		
12													
13													
14													
15													
16		S-4	Macro core		42"	Tan/ Yellow / Orange		Loose to medium dense, fine to coarse SAND, trace very coarse sand, some fine to coarse gravel. No visible impacts.	SP/GP	0.0	Dry		
17													
18													
19													
20													

Comments: 0' to 5' excavated by hand tools. Boring advanced to 45 ft, then installed temporary 3-in casing and completed boring with 1-inch PVC well.

PROJECT NO. 11175065
BORING NO. IPR-1

URS Corporation							TEST BORING LOG						
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-1						
CLIENT: KeySpan							SHEET: 2 of 3						
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065						
							BORING LOCATION: KeySpan Property						
DEPTH FEET	SAMPLE					DESCRIPTION							
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	MOIST	Remarks	
21		S_5	Macro core		38"	Yellow/ Orange/ Tan		Loose, fine to very coarse SAND, little fine gravel. No impacts.	SW	0.0		Dry	
22													
23													
24													
25													
26		S-6	Macro core		36"	Yellow/ Orange/ Tan		25' to 27', Loose, fine to very coarse SAND, little fine gravel. No impacts.	SW	0.0		Dry	
27													
28							Brown Stained		27' to 30', Brown stained and coated (MGP) impacted fine to coarse SAND, trace to little fine gravel (SP). Possible trace of DNAPL, Moderate MGP odor. Water table at about 28' bgs.	SP	50.0		Wet
29													
30													
31		S-7	Macro core		32"				30' to 32', Medium dense, fine to medium SAND. Partially saturated with DNAPL. Stained and coated, intervals of very thin seams of DNAPL impact moderate to strong MGP odor, water saturated.	SW	280.0		
32													
33													
34							Lt. Brown		32' to 35', Fine to medium SAND, trace fine gravel, no visible impact.				Wet
35													
36		S-8	Macro core		32"		Lt. Brown / Tan / Orange		Medium dense, fine to coarse SAND, some fine to coarse gravel. No visible impact.	SW	0.0		Wet
37													
38													
39													
40													
COMMENTS: 32' HCN:3.							PROJECT NO. IPR-1						
							BORING NO. 11175065						

URS Corporation

TEST BORING LOG

PROJECT:	KeySpan Hempstead MGP	BORING NO.:	IPR- 1
CLIENT:	KeySpan	SHEET:	3 of 3
BORING CONTRACTOR:	Fenley and Nicol	JOB NO.:	11175065
		BORING LOCATION:	KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		40"	Lt. Brown / Yellow / Orange		40' to 45', Loose to medium dense, fine to medium SAND, trace coarse sand, trace to little gravel. No visible impacts.	SP	0.0	Wet
42											
43											
44											
45											
46											
47								End of boring: 45' bgs			
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:	PROJECT NO.	IPR- 1
	BORING NO.	11175065

URS Corporation										TEST BORING LOG			
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR- 2								
CLIENT: KeySpan					LOCATION: KeySpan Property								
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065								
GROUNDWATER: ~ 27 bgs					CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe/HSA				
DATE	TIME	LEVEL	TYPE	TYPE	Temp.	Macrocore			TOTAL DEPTH: 90'				
				DIA.	3"	2"			DATE STARTED: 01/07/08				
				WT.					DATE FINISHED: 01/09/08				
				FALL					DRILLER: C. Guzzardo				
					* POCKET PENETROMETER READING			GEOLOGIST: J. Harshman					
								REVIEWED BY: K. Connare					
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS		
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist		
0	[Hatched Pattern]	S-1	Grab		N/A	Dk. Brown		Fine to medium SAND, some fine to coarse gravel, trace ALM, slag, coal. No MGP odors.	Fill/SP	0.0	Dry		
1													
2													
3													
4													
5													
6	[Dotted Pattern]	S-2	Macro core		30"	Dk. Brown		5' to 6', Fine to medium SAND, trace fine gravel.	SP	0.0	Dry		
7						Lt. Brown / Yellow		6' to 10', Fine to medium SAND, trace coarse sand, trace coarse gravel. No visible impacts.	SP		Dry		
8													
9													
10													
11		S-3	Macro core		48"	Lt. Brown / Yellow		Fine to coarse SAND, some fine to coarse gravel. No impact.	SW	0.0	Dry		
12													
13													
14													
15													
16	S-4	Macro core			Lt. Brown / Yellow		Fine to coarse SAND, some fine to coarse gravel. No impact.	SW	0.0	Dry			
17													
18													
19													
20													

Comments: 0' to 5' excavated by hand tools. Advanced boring to 90 ft, then installed temporary 3-in casing to 70 ft (refusal) and installed temporary 1-in PVC well. Later removed temporary well and installed 6-in PVC well to 70 ft.

PROJECT NO. 11175065
BORING NO. IPR- 2

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 2					
CLIENT: KeySpan							SHEET: 2 of 5					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	MOIST	Remarks
21		S-5	Macro core		30"	Orange / Lt. Brown		20' to 23', Fine to very coarse SAND, trace to little fine gravel.	SW	0.0		Dry
22												
23												
24						Lt. Brown		23' to 25', Fine to coarse SAND, trace fine gravel. No impacts.	SP	0.0		Dry
25												
26		S-6	Macro core		42"	Grey / Lt. Brown		Some MGP staining at 28', fine to medium SAND, trace coarse sand. 28' to 29' interval is coated by DNAPL, slight MGP odor, trace to little DNAPL. (water saturated) at 27' to 30'. Water table at about 27' bgs.	SP	45.0		Wet
27												
28												
29												
30												
31		S-7	Macro core		35"			30' to 32', DNAPL saturated fine to medium SAND, stained and coated black to brown. Moderate to strong MGP odor, sheen.	SP	450.0		Wet
32						Lt. Brown		32' to 33', Fine to medium SAND. Faint MGP odor.				Wet
33								33' to 33.5', Fine to medium SAND, with one large cobble, DNAPL pooling around thin seams of DNAPL present.				
34												
35						Lt. Brown		33.5' to 35', Fine to medium SAND, trace fine gravel. No visible impact. Faint MGP odor				Wet
36		S-8	Marco core		30"			Medium dense, fine to very coarse SAND and fine to coarse GRAVEL, intervals of 2" to 3" seams of DNAPL saturation, with strong MGP odor, stained black/brown and coated, DNAPL pooling around coarse gravel (water saturated)	SP/GP	400.0		Wet
37												
38												
39												
40												

COMMENTS: 27' HCN:1, 32' HCN = 8, 32.5' H₂S = 2, 42' HCN = 0, 42' H₂S = 1. After 30' driller changes to M. Meade for rest of core.

PROJECT NO. IPR- 2
BORING NO. 11175065

URS Corporation							TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-2									
CLIENT: KeySpan							SHEET: 3 of 5									
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065									
							BORING LOCATION: KeySpan Property									
DEPTH FEET	SAMPLE					DESCRIPTION										
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST						
41		S-9	Macro core		34"	Lt. Brown		40' to 43', Loose to medium dense, fine to medium SAND, trace fine gravel.	SP	0.0	Wet					
42																
43															43' to 44', 2" DNAPL saturated seam, stained and coated. Moderate MGP odor.	SP
44																
45									44' to 45', Fine to medium SAND. Faint MGP odor.	SP	0.0	Wet				
46		S-10	Macro core		20"	Lt. Brown			45' to 49', Fine to very coarse SAND, trace fine to coarse gravel. Sheen, faint MGP odor.	SP	6.0	Wet				
47																
48																
49									49' to 50', DNAPL saturated fine to medium SAND, stained and coated black. MGP odor, trace fine gravel sheen.	SP	90.0	Wet				
50																
51		S-11	Macro core		24"	Lt. Brown / Grey			Very loose, very fine to medium SAND, trace coarse sand, very thin seam (1") of DNAPL saturation at 53', slight/faint MGP odor.	SP	10.0	Wet				
52																
53																
54																
55																
56	S-12	Macro core		26"	Lt. Brown and trace Orange			55' to 59', Medium dense, very fine to medium SAND, intervals of trace coarse sand, interval at 58' with fine to coarse gravel.	SP		Wet					
57																
58																
59																59' to 60', Fine to medium SAND with very thin seams (1") of DNAPL saturation, trace fine gravel, faint to moderate. MGP odor.
60																

COMMENTS: 52.5' HCN: 2.

PROJECT NO. IPR-2
BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR- 2
CLIENT: KeySpan	SHEET: 4 of 5
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION						
		NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
61		S-13	Macro core		30"	Lt. Grey / White		Loose, very fine to medium "beach" SAND, little dark grey very fine to fine sand, trace intervals of tan sand. No visible impact, very faint MGP odor.	SP	0.0	Wet	
62										2.0		
63												
64												
65												
66			S-14	Macro core		32"	White / Lt. Grey / Orange brown		Medium dense, very fine to fine SAND, trace to little medium sand. No visible impact.	SP	0.0	Wet
67												
68												
69												
70												
71			S-15	Macro core		36"	Tan / Yellow / Lt. Brown		Very fine to medium SAND, trace clay varves (white clay), very thin. No visible impacts.	SP	0.0	Wet
72												
73												
74												
75												
76			S-16	Macro core		32"	Lt. Brown / Orange		Very fine to medium SAND, trace clay varves (very thin). No visible impact.	SP	0.0	Wet
77												
78												
79												
80												

COMMENTS:	PROJECT NO. IPR- 2
	BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR- 2

CLIENT: KeySpan

SHEET: 5 of 5

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
81		S-17	Macro core		34"	Lt. Brown and Orange		Medium dense, very fine to fine SAND, trace medium sand. No visible impact.	SP	0.0	Wet	
82												
83												
84												
85												
86			S-18	Macro core		32"	Lt. Brown and Orange		Medium dense, very fine to fine SAND, trace medium sand. No visible impact.	SP	0.0	Wet
87												
88												
89												
90												
91								End of boring: 90' bgs				
92												
93												
94												
95												
96												
97												
98												
99												
100												

COMMENTS:

PROJECT NO. IPR- 2

BORING NO. 11175065

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-4							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER: ~25'										CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			TOTAL DEPTH: 65'							
				DIA.			2"			DATE STARTED: 01/22/08							
				WT.						DATE FINISHED: 01/22/08							
				FALL						DRILLER: M. Meade							
										* POCKET PENETROMETER READING				GEOLOGIST: J. Harshman			
														REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS				
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION		USCS	PID	Moist					
0	[Hatched]	S-1	Macro core		38"	Dk. Brown		FILL: Fine to medium sand, fine to coarse gravel, red bricks, wood.		Fill	0.0	Dry					
1																	
2																	
3																	
4																	
5																	
6	[Hatched]	S-2	Macro core		25"			FILL: Red bricks, gravel, apparent gypsum drywall material, some black stained gravel, petroleum type odor.		Fill	2 to 3	Dry					
7																	
8																	
9																	
10																	
11																	
12	[Hatched]	S-3	Macro core		48"			Loose, black stained and coated, heavy petroleum type impact. Moist at 10' to 11'. Fine to coarse SAND, some poorly graded fine to coarse gravel. Very strong petroleum odor.		SP	200.0	Moist					
13																	
14																	
15		[Hatched]	S-4	Macro core		36"	Brown		Loose and medium dense. Some black staining at 23' to 25'; heavy petroleum impact. Fine to coarse SAND, some poorly graded fine gravel, strong petroleum type odor.		SP	250.0	Moist				
16																	
17																	
18																	
19																	
20																	
20																	

Comments: 0' to 5' excavated by hand tools. Advanced boring to 90 ft, then installed temporary 3-in casing to 70 ft (refusal) and installed temporary 1-in PVC well. Later removed temporary well and installed 6-in PVC well to 70 ft.

PROJECT NO. 11175065
BORING NO. IPR-4

URS Corporation							TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 4									
CLIENT: KeySpan							SHEET: 2 of 4									
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065									
							BORING LOCATION: KeySpan Property									
DEPTH FEET	SAMPLE					DESCRIPTION										
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST						
21	[Hatched Area]	S-5	Macro core		40"			20' to 23', Loose, intervals of black staining. Fine to very coarse SAND at 20' to 23' with black staining. Strong petroleum odor.	SP	200.0	Moist					
22																
23																
24													23' to 25', Fine to coarse SAND, little fine gravel. No staining, moderate odor.	SP	440.0	Dry
25																
26		S-6	Macro core		44"	Grey		25' to 27', Loose, Fine to coarse SAND, with some black staining. At about 25' water table and strong petroleum type odor (360 ppm).	SP	360.0	Wet					
27																
28											Black	27' to 28', Loose, stained and coated fine to coarse SAND. Strong petroleum odor.	SP	200.0	Wet	
29											Lt. Brown / Orange	28' to 30', Loose, fine to medium SAND, MGP odor, with little brown staining. Liner stained.	SP		Wet	
30																
31		S-7	Macro core		38"			30' to 32', MGP impacted. Stained brown with very thin seams of DNAPL saturation (75 to 100%). Trace DNAPL product inside liner. Fine to Medium SAND. Strong MGP odor.	SP	260.0	WET					
32																
33												32' to 35', Loose, fine to medium SAND, trace coarse sand. No staining.	SP	10.0	Wet	
34																
35																
36		S-8	Macro core		38"	Lt. Brown / Tan / Yellow		35' to 37', Loose, fine to medium SAND, trace coarse sand and fine gravel. Very thin seam (2") of DNAPL saturation with strong MGP odor.	SP	500.0	Wet					
37																
38												37' to 40', Loose, fine to very coarse SAND with fine to coarse gravel. No staining, slight MGP odor.	GP/SP	50.0	Wet	
39																
40																

COMMENTS: 26.5', HCN: 2

PROJECT NO.	IPR- 4
BORING NO.	11175065

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 4					
CLIENT: KeySpan							SHEET: 3 of 4					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
41		S-9	Macro core			38 "	Lt. Brown / Orange			SP	0.0	Wet
42												
43												
44												
45												
46		S-10	Macro core			32"	Orange / Yellow / Brown			SP	0.0	Wet
47												
48							Lt. Brown			SP	0.0	Wet
49												
50												
51		S-11	Macro core			37"	Lt. Brown / Orange			SP	0.0	Wet
52												
53												
54												
55												
56		S-12	Macro core			22"	Lt. Brown / Orange			SP	0.0	Wet
57												
58												
59												
60											10.0	
COMMENTS:							PROJECT NO. IPR- 4					
							BORING NO. 11175065					

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR-4

CLIENT: KeySpan

SHEET: 4 of 4

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
61		S-13	Macro core		33"	Grey Lt. Brown / Yellow		Loose, intervals of grey and light brown/yellow very fine to medium SAND. No staining, no impact.	SP	0.0	Wet
62											
63											
64											
65											
66											
67								End of boring: 65' bgs			
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

COMMENTS:

PROJECT NO. IPR-4

BORING NO. 11175065

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-5							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER: ~27' bgs										CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 55'			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 01/10/08							
				DIA.			2"			DATE FINISHED: 01/10/08							
				WT.						DRILLER: M. Meade							
				FALL						GEOLOGIST: J. Harshman							
										* POCKET PENETROMETER READING				REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS						
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist						
0								Asphalt pavement at surface.									
1		S-1	Grab					0' to 2', Black stained SAND and GRAVEL, with some MGP material (ALM, coal). NO odor.	SP	0.0	Moist						
2						Lt. Brown		2' to 5', Fine to coarse SAND and some fine to coarse gravel.	SP	0.0	Dry						
3																	
4																	
5																	
6		S-2	Macro core		54"	Lt. Brown / Yellow		Loose, fine to very coarse SAND with some well graded fine to coarse gravel. No visible impacts.	SP	0.0	Dry						
7																	
8																	
9																	
10																	
11		S-3	Macro core		53"	Lt. Brown / Yellow / Orange		Loose, fine to very coarse SAND, with some well graded fine to coarse gravel. No visible impacts.	SP	0.0	Dry						
12																	
13																	
14																	
15																	
16		S-4	Macro core		42"	Lt. Brown / Yellow / Orange		Fine to very coarse SAND, with some well graded fine to coarse gravel. Very faint odor at 20'. No visible impact.	SP	3.0	Dry						
17																	
18																	
19																	
20																	

Comments: 0' to 5' excavated by hand tools.

PROJECT NO. 11175065

BORING NO. IPR-5

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR-5
CLIENT: KeySpan	SHEET: 2 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION						
		NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
21		S-5	Macro core		32"	Lt. Brown / Yellow / Orange		20' to 24" Fine to very coarse SAND, with some well graded fine to coarse gravel. Faint to moderate MGP odor.	SP	10 to 40.0	Dry	
22												
23												
24												
25												
26			S-6	Macro core		32"	Brown / Tan / Brown		24' to 25', Black and brown MGP staining, fine to coarse SAND, little to fine coarse gravel. Little coating faint to moderate MGP odor.	SP	60.0	Dry
27												
28												
29												
30												
31			S-7	Macro core		24"			Loose to medium dense, fine to medium SAND, trace coarse sand, trace well graded fine gravel, little to some brown staining and coating. Faint to moderate MGP odor, sheen, (water saturated), possibly a trace of DNAPL (liner stained).	SP	0.0	Wet
32												
33												
34												
35												
36			S-8	Macro core		40"	Yellow / Orange		35' to 38' Fine to very coarse SAND and fine to coarse poorly graded GRAVEL. No visible impacts.	GP/SP	0.0	Wet
37												
38												
39												
40												
39							Lt. Brown / Tan / Orange		38' to 40', Fine to medium SAND, little coarse sand, trace fine to coarse gravel. No visible impact.	GP/SP		Wet
40												

COMMENTS:	PROJECT NO.: IPR-5
	BORING NO.: 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR- 5
CLIENT: KeySpan	SHEET: 3 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION					
		NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		34"	Yellow / Lt. Brown		40' to 42', Fine to very coarse SAND and poorly graded fine to coarse GRAVEL. No visible impacts.	GP/SP	0.0	Wet
42								42' to 45', Fine to medium SAND, trace coarse sand, trace well graded fine gravel. No visible impacts.	SP	0.0	Wet
43											
44		S-10	Macro core		38"	Yellow / Lt. Brown		Intervals of fine to coarse SAND and poorly graded GRAVEL and fine to medium SAND. No visible impacts.	GP/SP	0.0	Wet
45											
46											
47		S-11	Macro core		29"	Lt. Brown		Loose to medium dense. Little yellow/orange banding. Fine to medium SAND, trace coarse sand, trace well graded fine gravel. No visible impacts.	SP	0.0	Wet
48											
49											
50								End of boring: 55' bgs			
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:	PROJECT NO. IPR- 5
	BORING NO. 11175065

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR- 6									
CLIENT: KeySpan										LOCATION: KeySpan Property									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER: ~27' bgs										CAS.		SAMPLER		CORE		TUBE		TOTAL DEPTH: 65'	
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED:	01/15/08								
				DIA.			2"			DATE FINISHED:	01/15/08								
				WT.						DRILLER:	M. Meade								
				FALL						GEOLOGIST:	J. Harshman								
										* POCKET PENETROMETER READING				REVIEWED BY:					
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS								
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist								
0	[Hatched]	S-1	Grab			Brown		0' to 3', Fill Material. Bricks, concrete, fine to medium sand and gravel, ALM.	Fill	0.0	Dry								
1																			
2																			
3	[Hatched]																		
4	[Dotted]					Dk. Brown		3' to 5', Fine to medium SAND, some fine to coarse gravel.	SP	0.0	Dry								
5																			
6		S-2	Macro core		42"	Dk. Brown / Lt. Brown / Tan		Loose, fine to coarse SAND, some poorly graded fine gravel, trace coarse gravel. Very faint odor (possibly MGP odor).	SP	0.4	Dry								
7																			
8																			
9																			
10																			
11		S-3	Macro core		54"	Dk. Brown / Lt. Brown / Tan		10' to 13', Loose, fine to coarse SAND, some poorly graded fine gravel, trace coarse gravel. Very faint odor (possibly MGP odor).	SP	0.0	Dry								
12																			
13																			
14								13' to 14', Black stained, fine to medium SAND, trace fine gravel. Slight odor	SP		Dry								
15						Lt. Brown		14' to 15', Loose, fine to medium SAND, trace fine gravel, slight odor.	SP	80.0	Dry								
16	S-4	Macro core		45"				Loose, black stained with some coating, fine to coarse SAND with some poorly graded fine gravel, trace coarse gravel. Moderate MGP odor.	SP	80.0	Dry								
17																			
18																			
19																			
20																			

Comments: 0' to 5' excavated by hand tools. 17', HCN = 1.

PROJECT NO. 11175065

BORING NO. IPR- 6

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO: IPR-6
CLIENT: KeySpan	SHEET: 2 of 4
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Remarks
21		S-5	Macro core		42"	Black Stained		Loose, black stained and coated (MGP impact), fine to medium SAND, trace coarse sand, little fine gravel, trace light brown sand (not stained) at 25'. Moderate to strong MGP odor.	SP	260.0	Dry
22											
23											
24											
25											
26		S-6	Macro core		42"	Lt. Brown		Loose, light brown with thin intervals of black staining. Fine to medium SAND with little coarse sand at 29' to 30', trace well graded fine gravel wet at ~27' to 28'. Strong MGP odor, sheen, trace DNAPL coating.	SP	300.0	Wet
27											
28											
29											
30											
31		S-7	Macro core		40"			Loose to medium dense, brown and black stained and coated (MGP impact), fine to medium SAND. Sheens, intervals of partial DNAPL saturation. Strong MGP odor, liner stained.	SP	315.0	Wet
32											
33											
34											
35											
36		S-8	Macro core		42"	Lt. Brown		35' to 39.5', Loose fine to medium SAND, trace coarse sand, faint MGP odor (30 ppm).	SP	30.0 to 250.0	Wet
37											
38											
39								39.5' to 40', DNAPL saturated (100%) fine to medium SAND. Black DNAPL liquid present, strong MGP odor, sheen, liner stained, trace to little fine gravel at 39.5' to 40'.	SP		Wet
40											

COMMENTS: 22', HCN = 1. 27' HCN = 2. 33', HCN = 3.	PROJECT NO. IPR-6 BORING NO. 11175065
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URS Corporation							TEST BORING LOG								
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 6								
CLIENT: KeySpan							SHEET: 3 of 4								
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065								
							BORING LOCATION: KeySpan Property								
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks				
		NO.	TYPE	BLOWS PER 6"							PID	MOIST			
41		S-9	Macro core			30"	Lt. Brown / Orange / Yellow	Loose to medium dense, fine to coarse SAND and well graded fine to coarse gravel. Pocket of DNAPL saturated (100%) sand at 43' with strong MGP odor, sheen.	SP	10.0	Wet				
42															
43															
44															
45															
46		S-10	Macro core			35"	Lt. Brown / Yellow			Loose to medium dense, fine to very coarse SAND, little well graded fine gravel. Pocket of DNAPL saturated (100%) sand at 45' with DNAPL pooling around cobble.		SP	60.0	Wet	
47															
48															
49															
50															
51	S-11	Macro core			30"	Lt. Brown / Yellow	Fine to coarse SAND, trace to little very coarse sand at 53', trace well graded fine gravel. No visible impacts.	SP	0.7		Wet				
52															
53															
54															
55															
56	S-12	Macro core				Lt. Brown Tan with Bands of Orange			Loose to medium dense, fine to coarse SAND, little very coarse sand at 59' to 60', little fine to coarse gravel. No wet visible impacts.	SP		0.0	Wet		
57															
58															
59															
60															
COMMENTS:							PROJECT NO. IPR- 6								
							BORING NO. 11175065								

URS Corporation

TEST BORING LOG

PROJECT:	KeySpan Hempstead MGP	BORING NO.:	IPR- 6
CLIENT:	KeySpan	SHEET:	4 of 4
BORING CONTRACTOR:	Fenley and Nicol	JOB NO.:	11175065
		BORING LOCATION:	KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
61		S-13	Macro core		30"	Lt. Brown		Loose, fine to coarse SAND, trace fine to coarse gravel. No visible impacts.	SP	0.0	Wet
62											
63											
64											
65											
66								End of boring: 65'bgs			
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

COMMENTS:	PROJECT NO.	IPR- 6
	BORING NO.	11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR- 7		
CLIENT: KeySpan										LOCATION: KeySpan Property		
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065		
GROUNDWATER: ~ 29' bgs										DRILLING METHOD: Geoprobe		
CAS. SAMPLER CORE TUBE										TOTAL DEPTH: 45'		
DATE TIME LEVEL TYPE TYPE										DATE STARTED: 01/03/08		
DIA. Macrocore										DATE FINISHED: 01/04/08		
WT. 2"										DRILLER: C. Guzzardo		
FALL										GEOLOGIST: J. Harshman		
* POCKET PENETROMETER READING										REVIEWED BY:		
DEPTH FEET	SAMPLE					COLOR	CONSIST HARD	DESCRIPTION	USCS	REMARKS		
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD					PID	Moist	
0		S-1	Grab			Dk. Brown		0' to 1', Loamy topsoil.	SP	0.0	Dry	
1												
2								1' to 5', Fine to medium SAND, trace coal, trace to little fine gravel.	SP	0.0	Dry	
3												
4												
5												
6		S-2	Macro core		32"	Lt. Brown / Brown		5' to 7', Loose, fine to coarse SAND, little fine gravel.	SP		Dry	
7												
8								7' to 10', Black/brown stained and coated (MGP impacted), fine to medium SAND, trace coarse sand, trace to little fine gravel. Moderate MGP odor.	SP	125.0	Dry	
9												
10												
11		S-3	Macro core		49"			Black/brown stained and coated (MGP impacted), fine to medium SAND, trace coarse sand, trace to little fine gravel. Moderate MGP odor.	SP	88.0	Moist	
12												
13												
14												
15												
16		S-4	Macro core		N/A			Black/brown stained and coated (MGP impacted), fine to medium SAND, trace coarse sand, trace to little fine gravel. Moderate MGP odor.	SP	60.0	Dry	
17												
18												
19												
20												

Comments: 0' to 5' excavated by hand tools.

PROJECT NO. 11175065

BORING NO. IPR- 7

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 7					
CLIENT: KeySpan							SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks		
		S-5	Macro core		24"	Brown		20' to 22', Mud-like, very fine sand. Impacted by possible NAPL, sheens. MGP odor.	SP/GP	100.0		
21												
22												
23								22' to 24', Brown stained fine to coarse SAND, fine to coarse gravel with MGP impact. Moderate MGP odor.	SP/GP		Moist	
24												
25								24' to 25', Fine to coarse SAND, some fine to coarse gravel. No impact.	SP/GP		Dry	
26		S-6	Macro core		42"	Lt. Brown		25' to 29', Medium dense, fine to coarse SAND, trace very coarse sand, with trace fine gravel, black 2" seam at 26' (80 ppm). MGP odor and impact seam.	SP	80.0	Moist	
27												
28												
29								29' to 30', Very fine to fine SAND, stained and coated by possible DNAPL. Moderate MGP odor. Water table at ~29' bgs.		360.0	Wet	
30												
31		S-7	Macro core		30"			30' to 30.5', Very fine to fine brown stained (MGP impacted) SAND, with very thin seams of black and brown staining (possible DNAPL). Moderate MGP odor.	SP/GP	440.0	Wet	
32												
33						Lt. Brown		30.5' to 35', Fine to medium SAND, trace coarse sand, trace fine gravel. No visible impact.	SP/GP	60.0	Wet	
34												
35												
36		S-8	Macro core		32"	Lt. Brown		35' to 37', Medium dense, fine to medium SAND, trace fine gravel. Faint MGP odor. No visible impact.	SP/GP	8.0	Moist to Wet	
37												
38						Lt. Brown / Orange		37' to 40', Medium dense fine to coarse SAND, some fine to coarse gravel, small cobble. Very faint MGP odor.	SP/GP		Moist to Wet	
39												
40												
COMMENTS:							PROJECT NO. IPR- 7					
							BORING NO. 11175065					

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 7					
CLIENT: KeySpan							SHEET: 3 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks		
		S-9	Macro core		28"	Lt. Brown / Orange		40' to 43', Medium dense, SAND and GRAVEL, fine to very coarse sand with fine to coarse gravel. No visible impact.	SP/GP	0.0	Wet	
41												
42												
43												
44						Lt. Brown / Orange		43' to 45', Fine to medium SAND, trace coarse sand, trace fine gravel. No impact.	SP/GP		Wet	
45												
46								End of boring: 45' bgs				
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												
COMMENTS:							PROJECT NO. IPR- 7					
							BORING NO. 11175065					

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-8									
CLIENT: KeySpan										LOCATION: KeySpan Property									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER: ~28' bgs										CAS.		SAMPLER		CORE		TUBE		DRILLING METHOD: Geoprobe	
										TOTAL DEPTH: 45'								DATE STARTED: 01/09/08	
DATE										TIME		LEVEL		TYPE		TYPE		DATE FINISHED: 01/10/08	
														DIA.		Macrocore			
														WT.		2"			
														FALL				DRILLER: M. Meade	
																		GEOLOGIST: J. Harshman	
																		REVIEWED BY:	
																		* POCKET PENETROMETER READING	
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS								
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist								
0								Asphalt at surface.											
1		S-1	Grab			Dk. Brown		FILL: Loose, fine to medium SAND, some fill material consisting of coal fragmenmts, slag, some gravel.	SP/Fill	0.0	Dry								
2																			
3																			
4																			
5																			
6		S-2	Macro core		34"	Dk. Brown		5' to 9', Fine to very coarse SAND, some fine to coarse gravel.	SP	0.0	Dry								
7																			
8																			
9								9' to 10', FILL: Black stained and coated fine to coarse SAND and fine gravel, trace concrete at 9.5' to 10' (possible foundation). Faint MGP odor.	SP/GP	76.0	Moist to Wet								
10																			
11		S-3	Macro core		38"			Loose to medium dense, brown/black stained (MGP impacted), fine to coarse SAND. Stained and coated partial DNAPL saturation, trace to little fine gravel, moderate to strong MGP odor.	SP	137.0	Moist to Dry								
12																			
13																			
14																			
15																			
16		S-4	Macro core		36"	Black Stained		15' to 18', Black stained (MGP impact) and coated with partial DNAPL saturation, fine to coarse SAND and little fine gravel. Strong MGP odor.	SP	324.0	Dry to Moist								
17																			
18																			
19						Brown/Black Stained		18' to 20', Brown/Black stained and coated (MGP impact), fine to coarse SAND, little fine gravel, partial DNAPL saturation.	SP		Moist								
20																			

Comments: 0' to 5' excavated by hand tools. 12.5' HCN: 1. 16.5' HCN: 3.

PROJECT NO. 11175065

BORING NO. IPR-8

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR- 8					
CLIENT: KeySpan							SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Remarks	
21		S-5	Macro core		36"	Brown and Black Stained		Brown and black stained and coated (MGP impact), fine to coarse SAND, partial DNAPL saturation possible, little fine gravel, strong MGP odor.	SP	400.0	Moist	
22												
23												
24												
25												
26		S-6	Marco core		36"	Brown Stained		25' to 28', Loose brown stained (MGP impacted) and coated fine to coarse SAND, trace fine gravel wet at 28' bgs. Strong MGP odor.	SP	400.0		
27												
28												
29												
30												
31		S-7	Macro core		42"	Lt. Brown / Tan		Loose to medium dense, fine to medium SAND, trace fine gravel. No staining, no visible impact, faint MGP odor (dissolved).	SP	35.0	Wet	
32												
33												
34												
35												
36		S-8	Macro core		39"	Lt. Brown / Yellow		Medium dense, fine to medium SAND, trace fine gravel, little coarse sand and fine to coarse gravel at 39.5' to 40'. No visible impact.	SP	0.0	Wet	
37												
38												
39												
40												
COMMENTS: 42' HCN: 5.							PROJECT NO. IPR- 8					
							BORING NO. 11175065					

URS Corporation

TEST BORING LOG

PROJECT:	KeySpan Hempstead MGP	BORING NO.:	IPR- 8
CLIENT:	KeySpan	SHEET:	3 of 3
BORING CONTRACTOR:	Fenley and Nicol	JOB NO.:	11175065
		BORING LOCATION:	KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		33"	Lt. Brown / Orange / Yellow		Medium dense, fine to very coarse SAND and fine to coarse GRAVEL. No visible impacts or odors.	GP/SP	0.0	Wet
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

End of boring: 45' bgs

COMMENTS:	PROJECT NO.	IPR- 8
	BORING NO.	11175065

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-9							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER:										CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE						Macrocore			TOTAL DEPTH: 8' bgs				
				DIA.						2"			DATE STARTED: 04/09/08				
				WT.									DATE FINISHED: 04/09/08				
				FALL									DRILLER: K. Kegel				
										* POCKET PENETROMETER READING				GEOLOGIST: J. Harshman			
														REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS				
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION			USCS	PID	Moist				
0	[Hatched]	S-1	Grab			Dk. Brown		FILL: Loose, fine to medium SAND, with some fine to coarse gravel.			Fill SP	0.0					
1																	
2																	
3																	
4																	
5	[Hatched]	S-2	Macro core		32"			MGP- impacted fill material: Sand, gravel, cobbles. Black staining, MGP odor, concrete fragments at 8'.			Fill	633.0	Moist				
6																	
7																	
8																	
9																	
10								End of boring: refusal 8' bgs Refusal on possible former tank holder bottom/pad.									
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Comments: Location of IPR-9 pilot hole likely with in former large storage holder. Fill 5' to 8' HCN:5

PROJECT NO. 11175065
BORING NO. IPR-9

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-9A							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER:										CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 10' bgs			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 04/09/02							
				DIA.						DATE FINISHED: 04/10/02							
				WT.						DRILLER: K.Keagel							
				FALL						GEOLOGIST: J. Harshman							
										* POCKET PENETROMETER READING				REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS						
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist						
0	[Hatched]	S-1	Grab			Dk. Brown / yellow brown		Loose, fine to medium SAND, trace red brick, cobble fragments.	Fill/SP	0.0	Dry to Moist						
1																	
2																	
3																	
4																	
5																	
6	[Hatched]	S-2	Marco core		48"	Brown		5' to 8', MGP impacted material with perched water. Brown sand, gravel. Sheens 75-100% DNAPL and tar saturated, black stained and coated, strong MGP odor, cohesive and goeey.		300.0	Wet						
7																	
8								8' to 8.5', Concrete (possibly floor /pad of former storage holder).		600.0							
9								8.5' to 10', Loose, fine to medium SAND, trace coarse sand and fine gravel, slight odor.	SP	100.0	Dry						
10	[Dotted]																
11								End of boring: 10' bgs									
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Comments: Location believed to be within large former storage holder.

PROJECT NO. 11175065

BORING NO. IPR-9A

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-9 B							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER:										CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			TOTAL DEPTH: 60' bgs							
				DIA.			2"			DATE STARTED: 04/11/08							
				WT.						DATE FINISHED: 04/11/08							
				FALL						DRILLER: K. Kegel							
										* POCKET PENETROMETER READING				GEOLOGIST: J. Harshman			
														REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS				
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION		USCS	PID	Moist					
0	[Hatched Pattern]	S-1	Macro core		43"	Dk. Brown and Black		FILL: Loose, fine to medium SAND, little coarse sand, some fine to coarse gravel, trace coal. No impact.		Fill/SP	0.0	Moist					
1																	
2																	
3																	
4																	
5																	
6		S-2	Macro core		44"	Dk. Brown and Black		FILL: Loose, fine to medium SAND, little coarse sand, some fine to coarse gravel, trace coal, brick and mortar. Little yellow/brown fine to coarse sand at 9.5' to 10'. No impact.		Fill/SP	0.0	Moist					
7																	
8																	
9																	
10																	
11	[Dotted Pattern]	S-3	Macro core		58"	Orange / Brown		Loose, fine to coarse SAND, some fine to medium gravel at 14' to 15'. MGP impact at 14' to 15', with trace DNAPL, oily, coated, moderate MGP odor.		SP	13.0	Dry / Moist					
12																	
13																	
14																	
15																	
16		S-4	Macro core		37"	Lt. Brown / Tan		Loose to medium dense, fine to coarse SAND, with some fine to medium gravel through out. Oily at 18' to 20' with coating strong MGP odor.		SP	200.0	Moist to Dry					
17																	
18																	
19																	
20																	
Comments:										PROJECT NO. 11175065							
										BORING NO. IPR-9 B							

URS Corporation							TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-9 B									
CLIENT: KeySpan							SHEET: 2 of 3									
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065									
							BORING LOCATION: KeySpan Property									
DEPTH FEET	SAMPLE					DESCRIPTION										
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST						
21		S-5	Macro core		34"	Orange / Brown / Yellow		20' to 23', Loose, fine to coarse SAND, with some fine to medium gravel. Moderate MGP odor, slightly coated and oily.	SP	500.0	Moist					
22																
23																
24						Brown Staining		23' to 25', Loose, fine to coarse SAND, some fine to medium gravel. Perched water, 50 to 75% DNAPL saturated and coated, strong MGP odor.	SP	750.0	Wet					
25																
26		S-6	Macro core		33"			MGP-impacted throughout: Light to moderate brown staining, fine to coarse SAND with some fine to coarse gravel, oily, coated, moderate to strong MGP odor. Wet at 30', liner stained.	SP	500.0						
27																
28																
29																
30																
31	S-7	Macro core		34"			30' to 33', Heavy MCG impact: Numerous thin seams of black 100% DNAPL saturation, fine to medium SAND. Strong MGP odor.	SP	400.0	Wet						
32																
33																
34											Tan / Lt. Brown		33' to 35', Loose, fine SAND. No staining, little orange sand at 35'. No impact.	SP	3.0	Wet
35																
36	S-8	Macro core		34"	Lt Brown / Tan		35' to 39', Loose, fine to medium SAND, trace fine gravel. No impact.	SP	0.0	Wet						
37																
38																
39											Dr. Brown		39' to 40', Dense to very dense, fine to coarse SAND and fine to medium GRAVEL, trace silt. No Impact.	GP/SP		Wet
40																

COMMENTS:

PROJECT NO. IPR-9 B
BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR-9B
CLIENT: KeySpan	SHEET: 3 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
41		S-9	Macro core			34"	Orange Brown		Loose, fine to medium SAND, trace fine to coarse gravel. No impact.	SP	0.0	Wet
42												
43												
44												
45												
46		S-10	Macro core			30"	Lt. Brown / Orange		Loose to medium dense, fine to coarse SAND, with little fine to coarse gravel. No impact.	SP	0.0	Wet
47												
48												
49												
50												
51		S-11	Macro core			6"	Lt. Brown / Tan		Fine to medium SAND, poor recovery cobble stuck in tip of Macro core. No impact.	SP	0.0	Wet
52												
53												
54												
55												
56	S-12	Macro core			36"	Lt. Brown / Tan		Loose, fine to medium SAND, trace fine gravel, trace orange sand seam. No impact.	SP	0.0	Wet	
57												
58												
59												
60												

End of boring: 60' bgs

COMMENTS:	PROJECT NO. IPR-9B
	BORING NO. 11175065

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-10							
CLIENT: KeySpan										LOCATION: KeySpan Property							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER:										CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 40' bgs			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 04/10/08							
				RQD			2"			DATE FINISHED: 04/10/08							
				WT.						DRILLER: K. Kegel							
				FALL						GEOLOGIST: J. Harshman							
										* POCKET PENETROMETER READING				REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION								REMARKS			
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION			USCS	REMARKS					
												PID	Moist				
0		S-1	Grab			Brown / Yellow		0' to 1'; Loose, SAND, some poorly sorted medium to coarse gravel.			SP						
1						Black		1' to 5' Loose, SAND, some poorly sorted medium to coarse gravel, some organics. Strong hydrocarbon-type odor. MGP staining.			SP	3.7					
2																	
3																	
4																	
5																	
6		S-2	Macro core		51"	Black		Loose, SAND, some fine to coarse gravel. Strong hydrocarbon-type odor with possible solvent-type odor, heavily stained. No saturation but sticky (tar-like).			SP	57.0	Moist				
7																	
8																	
9																	
10																	
11		S-3	Macro core		25"	Black		Loose, SAND, some fine to coarse gravel. Strong hydrocarbon-type odor with possible solvent-type odor, heavily stained. No saturation but sticky (tar-like).			SP	237.0	Moist				
12																	
13																	
14																	
15																	
16		S-4	Macro core		24"	Black		Loose to medium dense, SAND, some fine to coarse gravel. Strong hydrocarbon-type odor. Heavily stained.			SP	104.0	Moist				
17																	
18																	
19																	
20																	
Comments: SP, 15' to 20' HCN:4										PROJECT NO. 11175065							
										BORING NO. IPR-10							

URS Corporation							TEST BORING LOG						
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-10						
CLIENT: KeySpan							SHEET: 2 of 2						
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065						
							BORING LOCATION: KeySpan Property						
DEPTH FEET	SAMPLE					DESCRIPTION							
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	MOIST	Remarks	
21		S-5	Macro core		28"	Black		Loose, fine to coarse SAND, some poorly sorted gravel. Hydrocarbon-type, strong gasoline/hydrocarbon-type odor.	SP	78.0			
22													
23													
24													
25													
26		S-6	Macro core		31"	Black / Grey		25' to 26', Loose, fine to coarse SAND. Strong MGP odor, MGP staining. 26' to 30', Loose, fine to coarse SAND, some poorly sorted gravel, strong MGP odor, 25% DNAPL saturation.	SP	112.0	Moist		
27													
28													
29													
30													
31	S-7	Macro core		35"	Brown / Yellow		Medium dense, fine to medium SAND. Bands/seams of black DNAPL (slightly saturated) at 30' to 32'. Strong MGP odor and staining.	SP	213.0	Moist			
32													
33													
34													
35													
36	S-8	Macro core		18"	Brown / Tan		Loose, fine to medium SAND. No visible impact.	SP	1.7	Wet			
37													
38													
39													
40													
							End of boring: 40' bgs						
COMMENTS: SP, 20' to 25', 25' to 30' and 30' to 35', HCN:3.							PROJECT NO. IPR-10						
							BORING NO. 11175065						

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-11									
CLIENT: KeySpan										LOCATION: KeySpan Property									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER:										CAS.		SAMPLER		CORE		TUBE		TOTAL DEPTH: 40' bgs	
DATE	TIME	LEVEL	TYPE	TYPE						Macrocore				DATE STARTED: 04/09/08					
				DIA.						2"				DATE FINISHED: 04/09/08					
				WT.										DRILLER: K. Kegel					
				FALL										GEOLOGIST: J. Harshman					
										* POCKET PENETROMETER READING				REVIEWED BY:					
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS						
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION		USCS	PID	Moist							
0	[Hatched]	S-1	Grab			Dk. Brown		Fill: Large tan bricks/mortar, sand, fine to coarse gravel. Perched water.		Fill	0.0	Wet							
1																			
2																			
3																			
4																			
5																			
6	[Hatched]	S-2	Macro core		48"			5' to 6', FILL: gravel and grey concrete fragments.		FILL	0.0	Wet							
7	[Dotted]					Orange / Brown / Dk. Brown		6' to 10', Loose, fine to coarse SAND, trace to little fine gravel.		SP		Dry							
8																			
9																			
10																			
11		S-3	Macro core		40"	Reddish Brown / Lt. Brown		Loose, fine to coarse SAND, little fine gravel. No impact.		SP	0.0	Moist to Dry							
12																			
13																			
14																			
15																			
16		S-4	Macro core		0"			No sample recovered, macrocore point lost during advancement. Sample not representative.											
17																			
18																			
19																			
20																			
Comments:										PROJECT NO. 11175065									
										BORING NO.		IPR-11							

URS Corporation							TEST BORING LOG				
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-11				
CLIENT: KeySpan							SHEET: 2 of 2				
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065				
							BORING LOCATION: KeySpan Property				
DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
21		S-5	Macro core		28"	Lt. Brown / Yellow		20' to 22', Loose, fine to coarse SAND, with poorly sorted subangular to subrounded coarse gravel. Oily, MGP odor.	SP	107.0	Moist
22											
23											
24											
25											
26		S-6	Macro core		24"	Lt. Grey		Loose, fine to medium SAND, with band of medium to coarse gravel at 27' to 27.5'. Moderate MGP odor, oily, black staining in gravel.	SP	990.0	Moist
27											
28											
29											
30											
31		S-7	Macro core		19"			30' to 33', Medium dense to dense, black stained fine to medium SAND and coarse gravel. 60 to 70% DNAPL saturated, with MGP staining and odor.	SP	2890.0	Moist
32											
33											
34											
35											
36		S-8	Macro core		16"	Grey / Yellow		33' to 35', Loose, fine to medium SAND. No staining slight odor.	SP	140.0	
37											
38											
39											
40											
								End of boring: 40' bgs			
COMMENTS: SP 25' to 30', HCN:6. SP 30' to 35', HCN:21.							PROJECT NO. IPR-11				
							BORING NO. 11175065				

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-12A									
CLIENT: KeySpan										LOCATION: KeySpan Property									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER:										CAS.		SAMPLER		CORE		TUBE		TOTAL DEPTH: 45' bgs	
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 04/08/08									
				DIA.			2"			DATE FINISHED: 04/08/08									
				WT.						DRILLER: K. Kegel									
				FALL						GEOLOGIST: J. Harshman									
										* POCKET PENETROMETER READING				REVIEWED BY:					
DEPTH FEET	SAMPLE					DESCRIPTION								REMARKS					
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION		USCS	PID	Moist							
0	[Hatched Pattern]	S-1	Grab			Dk. Brown		FILL: Loose, fine to medium SAND and Fill Material: Ash like material, red brick, slag, gravel.		Fill / GP/SP	0.4								
1																			
2																			
3																			
4																			
5																			
6			S-2	Macro core		28"	Brown		FILL: Loose to medium dense, fine to medium SAND, trace coarse sand, some fine to coarse gravel. Little concrete, trace wood and red brick. Faint MGP odor.		Fill	0.2	Moist						
7																			
8																			
9																			
10		S-3	Macro core		38"	Dk. Brown		10' to 11', Loose, fine to medium SAND, trace to little fine to coarse gravel. Little black staining and coating, perched water.		SP	10 to 15.0	Wet							
11								11' to 15', Loose, fine to medium SAND, little coarse sand, little fine gravel. Faint to moderate petroleum-type odor.				Dry to Moist							
12						Yellow / Brown													
13																			
14																			
15		S-4	Macro core		36"	Lt. Brown / Brown / Yellow		Loose, fine to coarse SAND and fine to medium gravel. Moderate MGP or petroleum-type odor, slightly coated (oily)		SP	104.0	Dry							
16																			
17																			
18																			
19																			
20																			

Comments: Temp well installed (1" sch. 40 PVC).

PROJECT NO. 11175065

BORING NO. IPR-12A

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO: IPR-12A
CLIENT: KeySpan	SHEET: 2 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: KeySpan Property

DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
21		S-5	Macro core			32"	Lt. Brown / Yellow		20' to 22', Loose, fine to coarse SAND, some fine gravel. Lightly coated (oily) moderate MGP-type odor.	SP	260	Moist
22												
23												
24												
25												
26		S-6	Macro core			29"	Lt. Brown		22' to 25', Loose, fine to medium SAND, trace fine gravel. Lightly coated (oily), moderate MGP odor.	SP	608	Moist to Wet
27												
28												
29												
30												
31		S-7	Macro core			32"	Lt. Brown / Orange / Tan		Loose to medium dense, fine to medium SAND, trace fine gravel. Very faint MGP odor, no staining, no DNAPL.	SP	10	Wet
32												
33												
34												
35												
36		S-8	Macro core						Interval not sampled (mistake made by driller, interval was missed). Auger cuttings show sand and gravel mix.			
37												
38												
39												
40												

COMMENTS:	PROJECT NO. IPR-12A
	BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR-12A

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		32"	Orange / Brown		Loose, fine to medium SAND, trace coarse sand, trace to little fine to coarse gravel. No staining, no DNAPL, no visible impact.	SP	0	Wet
42											
43											
44											
45											
46								End of boring: 45' bgs			
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:

PROJECT NO. IPR-12A

BORING NO. 11175065

URS Corporation							TEST BORING LOG						
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-12B						
CLIENT: KeySpan							LOCATION: KeySpan Property						
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065						
GROUNDWATER:							CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 40' bgs		
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 04/08/08			
				DIA.			2"			DATE FINISHED: 04/08/08			
				WT.						DRILLER: K. Kegel			
				FALL						GEOLOGIST: J. Harshman			
							* POCKET PENETROMETER READING				REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS		
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist		
0		S-1	Grab			Dk. Brown		Loose, fine to medium loamy SAND, trace coarse sand, trace fine gravel. No visible impact.	SP	0.0	Dry to Moist		
1													
2													
3													
4													
5													
6		S-2	Macro core		42"	Brown / Orange		Loose, fine to medium SAND, little to some coarse sand, trace fine gravel. No impact.	SP	0.0	Dry		
7													
8													
9													
10													
11		S-3	Macro core		45"	Brown / Orange		Loose to medium dense, fine to coarse SAND, trace to little fine gravel. No impact.					
12													
13													
14													
15													
16		S-4	Macro core		46"	Orange / Lt. Brown / Grey		Loose to medium dense, fine to medium SAND, some coarse sand, trace to little well graded gravel. Lightly coated (oily), moderate petroleum/gasoline-type odor.	SP	200.0	Moist		
17													
18													
19													
20													

Comments: 0' to 5' excavated by hand tools.

PROJECT NO. 11175065

BORING NO. IPR-12B

URS Corporation							TEST BORING LOG						
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-12B						
CLIENT: KeySpan							SHEET: 2 of 2						
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065						
							BORING LOCATION: KeySpan Property						
DEPTH FEET	SAMPLE					DESCRIPTION							
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	MOIST	Remarks	
21		S-5	Macro core		38"	Brown / Grey		Loose, fine to coarse SAND, little fine to coarse gravel. Lightly coated (oily), possibly coated with brown DNAPL, moderate odor, 25% DNAPL saturation.	SP	240.0			
22													
23													
24													
25													
26		S-6	Macro core		36"	Brown / Yellow		Loose, fine to coarse SAND, trace fine gravel. Oily, some brown MGP staining, 25% to 50% (DNAPL) saturation, moderate to strong MGP odor, liner stained.	SP	500.0	Moist		
27													
28													
29													
30													
31		S-7	Macro core		39"	Black and Brown stained		30' to 33', Heavy MGP impact: Fine to medium SAND. 100% DNAPL saturation at 32.5' to 33', other thin seams of near 100% DNAPL saturation, moderate to strong MGP odor, liner stained.	SP	320.0	Wet		
32													
33													
34													
35													
36		S-8	Macro core		36"	Lt. Brown / Tan		Loose to medium dense, fine to medium SAND, trace coarse sand and fine gravel. No visible impact.	SP	4.5	Wet		
37													
38													
39													
40													
End of boring: 40' bgs													
COMMENTS: SP, 25' to 30', HCN:2. SP 30' to 35', HCN:1							PROJECT NO. IPR-12B						
							BORING NO. 11175065						

URS Corporation										TEST BORING LOG			
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-13			
CLIENT: KeySpan										LOCATION: KeySpan Property			
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065			
GROUNDWATER:										DRILLING METHOD: Geoprobe			
										TOTAL DEPTH: 45' bgs			
DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE		DATE STARTED: 04/10/08			
				DIA.		Macrocore				DATE FINISHED: 04/10/08			
				WT.		2"				DRILLER: K. Kegel			
				FALL						GEOLOGIST: J. Harshman			
										REVIEWED BY:			
										* POCKET PENETROMETER READING			
DEPTH FEET	SAMPLE				DESCRIPTION							REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RGD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION		USCS	PID	Moist	
0								Gravel at surface.					
1		S-1	Grab			Dk. Brown		FILL: Loose, fine to medium SAND, little fill material: red brick, wood, ash-like material.		Fill	0.0	Dry	
2													
3													
4													
5													
6		S-2	Macro core		40"	Yellow Brown		Loose, fine to coarse SAND, little to some fine gravel. No impact.		SP	0.0	Moist to Dry	
7													
8													
9													
10													
11		S-3	Macro core		35"	Yellow Brown		Loose, fine to coarse SAND, little to some fine gravel, trace medium gravel. No impact.		SP	0.0	Moist to Dry	
12													
13													
14													
15													
16		S-4	Macro core		36"	Yellow Brown		15' to 16' Loose, fine to coarse SAND, little to some fine gravel, trace medium gravel. No impact.		SP	4.0	Moist to Dry	
17						Dk. Brown		16' to 20', Loose to medium dense, fine to medium SAND, trace to little coarse sand, little to some fine gravel. Some black staining, moderate petroleum-type odor.			15.0	Moist	
18													
19											30.0		
20													

Comments: 0' to 5' precleared by hand tools.

PROJECT NO. 11175065

BORING NO. IPR-13

URS Corporation							TEST BORING LOG				
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-13				
CLIENT: KeySpan							SHEET: 2 of 3				
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065				
							BORING LOCATION: KeySpan Property				
DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Remarks
21		S-5	Macro core		36"	Brown		Loose, fine to medium SAND, trace coarse sand, little to some fine to medium gravel. Some black staining and coating, moderate petroleum-type odor.	SP	60	Moist
22											
23											
24											
25											
26		S-6	Macro core		28"	Brown / Grey		25' to 27', Petroleum/oily impact: Fine to medium SAND, little fine to coarse gravel. Black stained and coated.	SP	55	Moist
27											
28											
29								27' to 30', MGP impacted: Fine to medium SAND. 10% DNAPL, some brown and black MGP staining, coated, moderate odor.	SP	85	Moist to Wet
30											
31	S-7	Macro core		28"	Brown / Tan		30' to 34', MGP impact: Medium dense, fine to medium SAND. Brown MGP staining, thin seams of DNAPL (near 100% saturation), moderate to strong MGP odor.	SP	155	Wet	
32											
33											
34											
35							34' to 35', Medium dense fine to medium SAND, little fine to medium gravel. No staining faint	SP	26	Wet	
36	S-8	Macro core		26"	Lt. Brown / Yellow / Tan						35' to 37', Medium dense, fine to very coarse SAND, with some fine to coarse GRAVEL. No staining.
37											
38											
39											
40											
							37' to 38', MGP impacted SAND and GRAVEL with 50% DNAPL saturation, moderate MGP odor.	GP/SP	155		
							38' to 40', Loose, fine to medium SAND. No staining.	GP/SP	4	Wet	

COMMENTS:

PROJECT NO. IPR-13
BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT:	KeySpan Hempstead MGP	BORING NO.:	IPR-13
CLIENT:	KeySpan	SHEET:	3 of 3
BORING CONTRACTOR:	Fenley and Nicol	JOB NO.:	11175065
		BORING LOCATION:	KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		36"	Orange Brown		Loose, fine to medium SAND, trace fine gravel. No impact.	SP	0	Wet
42											
43											
44											
45											
46											
47								End of boring: 45' bgs			
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:	PROJECT NO.	IPR-13
	BORING NO.	11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR- 14							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			TOTAL DEPTH: 45'			
				DIA.		2"			DATE STARTED: 01/18/08			
				WT.					DATE FINISHED: 01/18/08			
				FALL					DRILLER: M. Meade			
								* POCKET PENETROMETER READING		GEOLOGIST: J. Harshman		
										REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Grab			Dk. Brown		0' to 3', Loamy topsoil.	SP	0.0		
1												
2												
3							Dk. Brown		3' to 5', Fine to coarse SAND, little fine gravel.	SP		Dry
4												
5												
6			S-2	Macro core		49"	Lt. Brown / Yellowish		Loose, fine to coarse SAND, trace very coarse sand, trace well graded fine gravel. No visible impacts.	SP	0.0	Dry
7												
8												
9												
10												
11			S-3	Macro core		56"	Lt. Brown / Yellowish		10' to 12', Loose, fine to medium SAND, trace fine gravel.	SP	0.0	Dry
12												
13							Brown / Lt. Brown		12' to 15', Loose, fine to very coarse SAND, with some poorly graded fine gravel.	SP		Dry
14												
15												
16		S-4	Macro core		40"	Brown		Loose, fine to very coarse SAND and fine to coarse GRAVEL. No visible impacts.	GP/SP	0.0	Dry	
17												
18												
19												
20												

Comments: 0' to 5' excavated by hand tools.

PROJECT NO. 11175065

BORING NO. IPR- 14

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR- 14
CLIENT: KeySpan	SHEET: 2 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION									
		NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST					
21		S-5	Macro core		40"	Brown		20' to 23', Loose to medium dense, fine to coarse SAND, trace very coarse sand, little fine gravel. Slight MGP odor.	SP	30.0	Dry				
22															
23															
24					Brown Stained		23' to 25', Loose, MGP impacted, brown stained and coated, fine to coarse SAND, trace to little fine gravel. Moderate MGP odor. Water table at ~24' bgs	SP	175.0	Moist to Wet					
25															
26		S-6	Macro core		44"	Brown Black Stained		Loose, MGP impacted, stained and coated brown black, fine to coarse SAND, black seams of DNAPL saturation (75 to 100%). Very strong MGP odor. Trace silt and liner stained.	SP	800.0	Wet				
27															
28															
29															
30										1600.0					
31	S-7	Macro core		40"	Black and Brown Staining		30' to 31', Loose, MGP impacted, black and brown staining and coated fine to medium SAND with seams of DNAPL saturation (350 ppm). Strong MGP odor	SP	350.0	Wet					
32									SP	75.0	Wet				
33									31' to 35', Loose, fine to medium SAND, no staining, no DNAPL. Moderate MGP odor.						
34															
35															
36	S-8	Macro core		36"	Lt. Brown		35' to 37', Loose, fine to medium SAND, no staining. Moderate MGP odor.	SP	161.0	Wet					
37															
38						Lt. Brown / Yellow / Orange						37' to 40', Loose, fine to very coarse SAND and fine to coarse GRAVEL. Faint MGP odor.	GP	20.0	Wet
39															
40															

COMMENTS:	PROJECT NO.: IPR- 14
	BORING NO.: 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR- 14

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-5	Macro core		33"	Brown		Loose, fine to coarse SAND, trace to little fine gravel. No staining.	SP	2.0	Wet
42										1.0	
43											
44										0.0	
45											
46								End of boring: 45' bgs			
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:

PROJECT NO. IPR- 14

BORING NO. 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR- 15							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~25' bgs					CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			TOTAL DEPTH: 45'			
				DIA.		2"			DATE STARTED: 01/17/08			
				WT.					DATE FINISHED: 01/17/08			
				FALL					DRILLER: M. Meade			
								* POCKET PENETROMETER READING		GEOLOGIST: J. Harshman		
								REVIEWED BY:				
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Grab			Dk. Brown		0' to 2', Loamy topsoil.	SP	0.0		
1												
2						Lt. Brown		2' to 5', Fine to coarse SAND, little fine gravel.	SP		Dry	
3												
4												
5												
6		S-2	Macro core		52"	Dk. Brown / Brown		Loose, fine to coarse SAND, intervals of very coarse sand little well graded fine gravel.	SP	0.0	Dry	
7												
8												
9												
10												
11		S-3	Macro core		58"	Dk. Brown / Brown		Loose, fine to coarse SAND, intervals of very coarse sand little well graded fine gravel.	SP	0.0	Dry	
12												
13												
14												
15												
16		S-4	Macro core		39"	Dk. Brown / Brown		Loose, fine to very coarse SAND, little well graded fine gravel. Petroleum type odor (like degraded gasoline) at 19' to 20'. No staining, slightly coated.	SP	5.0	Dry	
17												
18												
19										60.0		
20												

Comments: 0' to 5' interval cleared by hand tools.

PROJECT NO. 11175065

BORING NO. IPR- 15

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR- 15

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-5	Macro core		38"	Lt. Brown		Loose, fine to coarse SAND, little fine to coarse gravel. No staining or visible impact.	SP	0.0	Wet
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

End of boring: 45'

COMMENTS:

PROJECT NO. IPR- 15

BORING NO. 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR- 16							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~28' bgs					CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 65'			
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			DATE STARTED: 01/16/08			
				DIA.		2"			DATE FINISHED: 01/17/08			
				WT.					DRILLER: M. Meade			
				FALL					GEOLOGIST: J. Harshman			
* POCKET PENETROMETER READING										REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Grab			Dk. Brown		0' to 2', Loamy topsoil.	SP	0.0		
1												
2						Brown		2' to 5', Fine to coarse SAND, with some fine to coarse gravel.	SP	0.0	Dry	
3												
4												
5												
6		S-2	Macro core		44"	Dk. Brown Brown		Loose, fine to very coarse SAND, trace well graded fine gravel. Very faint odor (undetermined).	SP	2.0	Dry	
7												
8												
9												
10												
11		S-3	Macro core		52"	Lt. Brown		Loose, fine to very coarse SAND, little poorly graded fine gravel. No visible impacts.	SP	0.0	Dry	
12												
13												
14												
15												
16		S-4	Macro core		42"	Brown		15' to 19.5', Loose fine to coarse SAND, little well graded fine gravel. Faint odor.	SP	3.0	Dry	
17												
18												
19								19.5' to 20', Black stained and coated fine to coarse SAND, some fine gravel. Slight MGP odor.				
20						Black			SP	15.0		

Comments: 0' to 5' excavated by hand tools. Note: location is 20' east of original stake.

PROJECT NO. 11175065

BORING NO. IPR- 16

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR- 16
CLIENT: KeySpan	SHEET: 2 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION					
		NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
21		S-5	Macro core		39"	Stained Black and Brown		Loose, Stained and coated (MGP impact), fine to coarse SAND, with little well graded fine gravel. Slight to moderate MGP odor.	SP	75.0	Moist to Dry
22											
23											
24											
25											
26		S-6	Macro core		44"	Brown		Loose, fine to medium SAND, trace coarse sand, trace fine gravel, several intervals of black staining and MGP coating. Moderate MGP odor.	SP	150.0	Wet at ~28'bgs
27											
28											
29											
30											
31		S-7	Macro core		40"	Stained Brown		30' to 31', DNAPL saturated (75 to 100%), fine to medium SAND, stained and coated, strong MGP odor heavy sheen, liner stained.	SP	467.0	Wet
32											
33						Lt. Brown / Tan		31' to 35', Loose , fine to medium SAND, trace coarse gravel at 34.5'. Sheen, no staining, no DNAPL, slight MGP odor,	SP	30.0	Wet
34											
35											
36		S-8	Macro core		42"	Lt. Brown		35' to 37', Loose, medium to very coarse SAND and fine to coarse GRAVEL. No staining, slight MGP odor.	SP/GP	15.0	Wet
37											
38						Lt. Brown / Orange		37' to 40', Loose, fine to medium SAND, trace coarse sand and fine gravel. Faint MGP odor.	SP	10.0	
39											
40											

COMMENTS: 30.5', H ₂ S:4.	PROJECT NO. IPR- 16
	BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO.: IPR-16

CLIENT: KeySpan

SHEET: 3 of 4

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks		
		NO.	TYPE	BLOWS PER 6"							PID	MOIST	
41		S-9	Macro core			37"	Lt. Brown / Tan	Loose, fine to coarse SAND, trace very coarse sand, trace fine gravel, trace medium to very coarse sand at 43'. No staining, faint MGP odor.	SP	5.0	Wet		
42													
43													
44													
45													
46			S-10	Macro core			38"	Lt. Brown / Tan	Loose, fine to medium SAND, trace coarse sand, trace well graded fine gravel. No staining no odors.	SP	0.0	Wet	
47													
48													
49													
50													
51				S-11	Macro core			37"	Lt. Brown / Tan	Loose, fine to medium SAND, trace to little coarse sand, trace very coarse sand, trace fine gravel (well graded). No visible impacts.	SP	1 to 2	Wet
52													
53													
54													
55													
56				S-12	Macro core			33"	Lt. Brown / Yellow	Loose, fine to very coarse SAND, with little fine to coarse gravel. No visible impacts.	SP	0.0	Wet
57													
58													
59													
60													

COMMENTS:

PROJECT NO.: IPR-16

BORING NO.: 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO.: IPR-16

CLIENT: KeySpan

SHEET: 4 of 4

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
61		S-13	Macro core		38"	Lt. Brown / Yellow		60' to 63', Loose, fine to very coarse SAND, with little fine to coarse gravel. No visible impacts.	SP	0.0	Wet
62											
63											
64											
65											
64						Brown		63' to 63.5', Stiff sandy SILT.	ML		Wet
65						Yellowish Orange		63.5' to 65', Loose, fine to very coarse SAND, trace to little fine gravel. No visible impacts.			Wet
66								End of boring: 65'			
67											
68											
69											
70											
71											
72											
73											
74											
75											
76											
77											
78											
79											
80											

COMMENTS:

PROJECT NO.: IPR-16

BORING NO.: 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR- 17		
CLIENT: KeySpan										LOCATION: Medical Center Lot		
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065		
GROUNDWATER: ~30' bgs										DRILLING METHOD: Geoprobe		
CAS. SAMPLER CORE TUBE										TOTAL DEPTH: 50'		
DATE TIME LEVEL TYPE TYPE										DATE STARTED: 01/16/08		
DIA. Macrocore										DATE FINISHED: 01/16/08		
WT. 2"										DRILLER: M. Meade		
FALL										GEOLOGIST: J. Harshman		
* POCKET PENETROMETER READING										REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Grab			Dk. Brown		0' to 2', Loamy topsoil.	SP	0.0		
1												
2												
3								2' to 5', Fine to coarse SAND, with some fine to coarse gravel.	SP		Dry	
4												
5												
6		S-2	Macro core		48"	Brown / Lt. Brown / Tan		Loose, fine to very coarse SAND, with trace to little fine to coarse gravel (well graded). Faint undetermined odor.	SP	2.0	Moist	
7												
8												
9												
10												
11		S-3	Macro core		42"	Brown / Lt. Brown / Tan		Loose, fine to very coarse SAND, with trace to little fine to coarse gravel (well graded). Faint undetermined odor.	SP	2.0	Moist	
12												
13												
14												
15												
16		S-4	Macro core		42"	Dk. Brown / Dk. Grey		Loose, fine to coarse SAND, little brown staining and coating, little to some fine to coarse poorly graded gravel. Slight odor (hydrocarbon?).	SP	40.0	Moist	
17												
18												
19												
20												

Comments: 0' to 5' excavated by hand tools.

PROJECT NO. 11175065

BORING NO. IPR- 17

URS Corporation						TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP						BORING NO: IPR-17					
CLIENT: KeySpan						SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol						JOB NO.: 11175065					
						BORING LOCATION: Medical Center Lot					
DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Remarks
21		S-5	Macro core		40"	Brown and Black Staining		Loose, staining with little coating, fine to coarse SAND, with little to some fine gravel. Slight to moderate MGP/hydrocarbon odor.	SP	90.0	Dry to Moist
22											
23											
24											
25											
26		S-6	Macro core		42"	Black Stained		Loose, stained and coated (possible hydrocarbon impact), fine to coarse SAND, trace well graded fine gravel. Moderate odor (hydrocarbon or MGP).	SP	150.0	Moist
27											
28											
29											
30											
31		S-7	Macro core		40"	Brown and Black Stained		Loose to medium dense, stained fine to medium SAND, pocket of 75% DNAPL saturated sand at 33' to 34'. MGP odor, trace silt at 34'. Trace to little fine gravel at 34.5'. Water table at 30"	SP	250.0	Moist to Wet 30' bgs Wet
32											
33											
34											
35											
36		S-8	Macro core		36"	Black Stained		35' to 37', DNAPL saturated (100%) SAND and GRAVEL. Completely stained and coated black with DNAPL product. Moderate to strong MGP odor.	SP/GP	250.0	Wet
37				Lt. Brown							
38											
39											
40									Black		39' to 40' DNAPL saturated fine to medium sand, trace fine gravel.

COMMENTS:

PROJECT NO. IPR-17
BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO: IPR-17
CLIENT: KeySpan	SHEET: 3 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
41		S-9	Macro core		30"	Lt. Brown / Orange		40' to 44.5', Loose, fine to medium SAND, trace coarse sand. Several thin seams of DNAPL.	SP	2.0	Wet	
42												
43												
44												
45												
46			S-10	Macro core		36"	Black Stained Lt. Brown / Yellow		44.5' to 45', DNAPL saturated fine to medium SAND. Moderate MGP odor, stained and coated. Loose, fine to coarse SAND, trace very coarse sand, little poorly graded fine to coarse gravel. No visible impacts.	SP SP	50.0 0.0	Wet
47												
48												
49												
50												
51												
52												
53												
54												
55												
56												
57												
58												
59												
60												

End of boring: 50' bgs

COMMENTS:	PROJECT NO. IPR-17
	BORING NO. 11175065

URS Corporation										TEST BORING LOG								
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-18								
CLIENT: KeySpan										LOCATION: Medical Center Lot								
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065								
GROUNDWATER: ~24' bgs										CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe				
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			TOTAL DEPTH: 45'								
				DIA.			2"			DATE STARTED: 01/31/08								
				WT.						DATE FINISHED: 01/31/08								
				FALL						DRILLER: M. Meade								
										* POCKET PENETROMETER READING			GEOLOGIST: J. Harshman					
										REVIEWED BY:								
DEPTH FEET	SAMPLE					DESCRIPTION						REMARKS						
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist							
0	[Pattern]	S-1	Macro core		44"	Tan		0' to 3', Medium dense to stiff, clayey fine to medium SAND, trace fine gravel.	SP	0.0	Dry to Moist							
1																		
2																		
3																		
4											DK. Brown		3' to 5', Loose to medium dense, loamy/peat-like, very fine to fine SAND, trace fine gravel. Little fine to coarse light brown/ orange sand at 5'.	Peat?		Dry		
5																		
6	[Pattern]	S-2	Macro core		54"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little very coarse sand, little to some fine gravel. No impact.	SP	0.0	Dry							
7																		
8																		
9																		
10											Lt. Brown		Fine to medium sand at 10'.					
11		S-3	Macro core			50"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little very coarse sand, little to some fine gravel. No impact.	SP	0.0	Dry						
12																		
13																		
14																		
15																		
16	S-4	Macro core				Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little very coarse sand, little to some fine gravel, becoming more gravelly sand. No impact.	SP	0.0	Dry							
17																		
18																		
19																		
20															0.7			
Comments: 19', HCN:1.										PROJECT NO. 11175065								
										BORING NO. IPR-18								

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-18					
CLIENT: KeySpan							SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: Medical Center Lot					
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
21		S-5	Macro core			46"	Stained Brown			SP	30.0	
22											100.0	
23												
24												Wet at 24' bgs
25							Brown Stained			SP	200.0	Wet
26		S-6	Macro core			42"	Black/Brown Stained			SP	400.0	Wet
27											750.0	
28												
29											1250.0	
30												
31		S-7	Macro core			44"	Black/Brown			SP	1350.0	Wet
32												
33												
34												
35												
36		S-8	Macro core			16"	Lt. Brown / Tan			SP	70.0	Wet
37												
38												
39												
40												
COMMENTS: 37', HCN:1.							PROJECT NO. IPR-18					
							BORING NO. 11175065					

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR-18

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		34"	Lt. Brown / Orange / Tan		Loose, fine to medium SAND, little to some coarse sand, trace fine to coarse gravel at 43'. No staining, no visible impact, very faint MGP odor.	SP	100.0	Wet
42											
43											
44											
45											
46											
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

End of boring: 45'

COMMENTS: 41.5'; HCN:5.

PROJECT NO. IPR-18

BORING NO. 11175065

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR- 19									
CLIENT: KeySpan										LOCATION: Medical Center Lot									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER:										CAS.		SAMPLER		CORE		TUBE		TOTAL DEPTH: 91'	
DATE	TIME	LEVEL	TYPE	TYPE	Macro core	Split spoon				DATE STARTED: 01/21/08									
				DIA.	2"	2"				DATE FINISHED: 03/29/08									
				WT.		30"				DRILLER: Gazzaro/Meade									
				FALL		140				GEOLOGIST: Harshman/Casey									
* POCKET PENETROMETER READING										REVIEWED BY:									
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS								
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist								
0		S-1	Grab			Dk. Brown / Lt. Brown		SAND and Gravel. Fine to medium SAND, with some fine to coarse GRAVEL.	GP/SP	0.0	Dry								
1																			
2																			
3																			
4																			
5		S-2	Macro core		40"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little very coarse sand, little poorly graded fine gravel.	SP	0.0	Dry								
6																			
7																			
8																			
9		S-3	Macro core		41"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little very coarse sand, little poorly graded fine gravel.	SP	0.0	Dry								
10																			
11																			
12																			
13		S-4	Macro core		36"	Lt. Brown / Yellow / Orange		Loose, fine to very coarse SAND, some poorly graded fine to coarse gravel. No impacts.	SP	0.0	Dry								
14																			
15																			
16																			
17		S-5	Macro core		36"	Lt. Brown		Loose, fine to coarse SAND, little well graded fine gravel, trace black staining at 17'. MGP odor.	SP	50.0	Dry								
18																			
19										180.0									
20																			

Comments: 0' to 4' excavated by hand tools. Direct-push drilling to refusal at 60 ft. HSA and split spoon to 91 ft. Installed 6-in well screened 65 to 85 ft and adjacent shallow well screened 10 to 40 ft.

PROJECT NO. 11175065
BORING NO. IPR- 19

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO: IPR-19
CLIENT: KeySpan	SHEET: 2 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				COLOR	CONSIST HARD	DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"	REC RQD%					PID	MOIST
21		S-6	Macro core		N/A	Lt. Brown		Loose, fine to coarse SAND, with little to some fine gravel. MGP odor.	SP	180.0	Dry
22											
23											
24											
25		S-7	Macro core		38"	Lt. Brown		24' to 28', Loose, fine to very coarse SAND, trace to little fine to coarse gravel. Strong MGP odor. Water table at ~24' to 25' bgs.	SP	1800.0	Wet
26											
27											
28											
29						Brown to Black Staining		28' to 30', Heavy MGP impact. Staining and coating, intervals of DNAPL saturation (75 to 100%), some DNAPL product, very strong MGP odor, liner stained.	SP	2200.0	Wet
30											
31		S-8	Macro core		44"	Brown to Black Staining		30' to 33', Heavy MGP impact. Stained, DNAPL product present (75 to 100% saturation). Very strong MGP odor, fine to medium SAND. Liner stained.	SP	2400.0	Wet
32											
33											
34						Lt. Brown / Tan		33' to 35', Loose, fine to medium SAND. No staining, no DNAPL, MGP odor.	SP	160.0	Wet
35											
36		S-9	Macro core		42"	Lt. Brown / Tan		35' to 37', Loose, fine to medium SAND. No staining, slight MGP odor.	SP	85.0	Wet
37											
38								37' to 38', Loose, SAND and GRAVEL, medium dense, trace silt.	GP		Wet
39						Lt. Brown		38' to 40', Loose, fine to coarse SAND. Faint MGP odor, no staining.	SP	7.0	Wet
40											

COMMENTS:	PROJECT NO. IPR-19
	BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR-19
CLIENT: KeySpan	SHEET: 3 of 3
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD%	COLOR	CONSIST HARD	DESCRIPTION	USCS	Remarks				
		NO.	TYPE	BLOWS PER 6"							PID	MOIST			
41		S-10	Macro core			43"	Lt. Brown / Tan	Loose, fine to coarse SAND, trace well graded fine gravel. No visible impacts.	SP	0.0	Wet				
42															
43															
44															
45															
46		S-11	Macro core			22"	Lt. Brown / Tan					Loose, fine to coarse SAND, trace well graded fine gravel. No visible impacts.	SP	0.0	Wet
47															
48															
49															
50															
51	S-12	Macro core			Poor rec.	Lt. Brown	Loose, fine to medium SAND, trace coarse sand. Faint MGP odor.	SP	35.0	Wet					
52															
53															
54															
55															
56	S-13	Macro core			Poor rec.	Lt. Brown					Loose, fine to medium SAND, trace coarse sand. Faint MGP odor.	SP	105.0	Wet	
57															
58															
59															
60															

COMMENTS:	PROJECT NO. IPR-19
	BORING NO. 11175065

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-19D					
CLIENT: KeySpan							SHEET: 4 of 5					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: KeySpan Property					
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
61		S-14				12"	Yellow / Orange			SP	5.0	Wet
62												
63		S-15				9"	Yellow / Orange			SP	1.6	Wet
64							Yellow / Lt. Brown			SP		
65		S-16				21"	Yellow / Lt. Brown				1.6	Wet
66							Pale grey			SP		
67		S-17				2"				SP	0.0	
68												
69		S-18				12"	Lt. Brown			SP	0.0	Wet
70										SP		
71		S-19				12"	Yellow / Red / Lt. Brown			SP	0.0	Wet
72												
73		S-20				18"	Yellow / Red / Lt. Brown			SP	0.0	Wet
74												
75		S-21				23"	Lt. Brown / Yellow			SP	0.0	Wet
76												
77		S-22				23"	Lt. Brown / Yellow			SP	0.0	Wet
78												
79		S-23				12"	Lt. Brown / Yellow			SP	0.0	Wet
80												

COMMENTS:

PROJECT NO. IPR-19D
BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT:	KeySpan Hempstead MGP	BORING NO.:	IPR-19D
CLIENT:	KeySpan	SHEET:	5 of 5
BORING CONTRACTOR:	Fenley and Nicol	JOB NO.:	11175065
		BORING LOCATION:	KeySpan Property

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
81	[Hatched Area]	S-24			22"	Orange Lt. Brown		80' to 82', Loose, fine to medium SAND. At 80' to 81' Thin bands of black stained sand, no odors. Thin band 0.5" of clayey sand.	SP	0.0	
82											
83		S-25			20"	Lt. Brown / Orange		82' to 84', Loose, fine to coarse SAND, rare coarse gravel. No odors, very thin localized bands of black stained sand.	SP	0.0	
84											
85		S-26			24"	Lt. Brown / Orange		84' to 85', Loose, fine to coarse SAND, rare coarse gravel. 85' to 86', Loose to medium dense SAND. Bands of light grey and black stained sands.	SP	0.0	
86											
87		S-27			2"	Lt. Brown / Orange		86' to 88', Loose to medium dense SAND. Bands of light grey and black stained sands.	SP	0.0	
88											
89		S-28			16"	Yellow / Lt. Brown		88' to 90', Loose to medium dense, fine to coarse SAND, some clay. Some black stained bands.	SP	0.0	
90											
91							End of boring: 90' bgs				
92											
93											
94											
95											
96											
97											
98											
99											
100											

COMMENTS:	PROJECT NO.	IPR-19D
	BORING NO.	11175065

URS Corporation										TEST BORING LOG									
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-20									
CLIENT: KeySpan										LOCATION: Medical Center Lot									
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065									
GROUNDWATER: ~24' bgs										CAS.		SAMPLER		CORE		TUBE		DRILLING METHOD: Geoprobe	
										TOTAL DEPTH: 45'									
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			DATE STARTED: 01/31/08									
				DIA.			2"			DATE FINISHED: 01/31/08									
				WT.						DRILLER: M. Meade									
				FALL						GEOLOGIST: J. Harshman									
										* POCKET PENETROMETER READING				REVIEWED BY:					
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS						
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	REMARKS									
										PID	Moist								
0	[Pattern]	S-1	Macro core		44"	Tan		0' to 3', Medium dense to stiff, clayey fine to medium SAND, trace fine gravel.	SP	0.0	Dry to Moist								
1																			
2																			
3																			
4									Dk. Brown		3' to 5', Loose, medium to dense, loamy/peat-like, with some organic matter, very fine to fine SAND, trace fine gravel.	Peat?		Dry					
5	[Pattern]	S-2	Macro core		56"	Lt. Brown / Tan		Loose, fine to coarse SAND, little fine gravel. No visible impact.	SP	12.0	Dry								
6																			
7																			
8																			
9												5.0							
10	[Pattern]	S-3	Macro core		50"	Brown / Orange		Loose to medium dense, fine to coarse SAND and fine to coarse GRAVEL.	GP/SP	0.0	Dry								
11																			
12																			
13																			
14																			
15	[Pattern]	S-4	Macro core		48"	Orange / Brown		15' to 18', Fine to coarse SAND with some fine gravel.	SP	0.0	Dry								
16																			
17																			
18									Brown Stained		18' to 20', MGP impacted. Stained and coated brown, fine to coarse SAND, some fine gravel. Strong MGP odor.	SP	400.0	Moist					
19													750.0						
20																			

Comments:

PROJECT NO. 11175065

BORING NO. IPR-20

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-20					
CLIENT: KeySpan							SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: Medical Center Lot					
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
21		S-5	Macro core			48"	Lt. Brown / Tan			SP	700.0	
22											800.0	
23												
24										SP	750.0	Wet at ~24'
25												
26		S-6	Macro core			43"	Lt. Brown and some Brown			SP	1200.0	Wet
27							Staining					
28							Black and Brown			SP	1400.0	Wet
29							Staining					
30											1600.0	
31		S-7	Macro core			50"	Lt. Brown / Orange			SP	130.0	Wet
32												
33												
34											220.0	
35												
36		S-8	Macro core			38"	Brown Stained			SP	420.0	Wet
37							Lt. Brown / Tan					
38												
39												
40							Lt. Brown			SP	75.0	
COMMENTS: 22', H ₂ S:2. 27', HCN:4. 28', H ₂ S:2. 41.5', HCN:2.							PROJECT NO. IPR-20					
							BORING NO. 11175065					

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO.: IPR-20

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065
BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE				DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Remarks
41		S-9	Macro core		42"	Lt. Brown / Tan		Loose, fine to coarse SAND, trace fine gravel. No visible impact, no staining, very faint MGP odor.	SP	49.0	Wet
42										6.0	
43											
44										4.0	
45											
46								End of boring: 45' bgs			
47											
48								27' to 30', Heavy MGP impact. Intervals of black and brown MGP staining and DNAPL saturation (75 to 100%), very fine to fine sand. Very strong MGP odor. Liner stained.			
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS: 41', HCN:1.

PROJECT NO.: IPR-20

BORING NO.: 11175065

URS Corporation										TEST BORING LOG							
PROJECT: KeySpan Hempstead MGP										BORING NO: IPR-21							
CLIENT: KeySpan										LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol										JOB NO.: 11175065							
GROUNDWATER: ~24' to 25' bgs										CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE			Macrocore			TOTAL DEPTH: 45'							
				DIA.			2"			DATE STARTED: 01/24/08							
				WT.						DATE FINISHED: 01/24/08							
				FALL						DRILLER: M. Meade							
										* POCKET PENETROMETER READING				GEOLOGIST: J. Harshman			
														REVIEWED BY:			
DEPTH FEET	SAMPLE					DESCRIPTION							REMARKS				
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist						
0		S-1	Macro core		37"	Dk. Brown Lt. Brown / Yellow		Loose, fine to very coarse SAND and fine to coarse GRAVEL. No impacts.	GP/SP	0.0	Dry						
1																	
2																	
3																	
4																	
5		S-2	Macro core		52"	Dk. Brown Lt. Brown / Yellow		5' to 8' , Loose, fine to very coarse SAND and fine to coarse GRAVEL. No impacts.	GP/SP	0.0	Dry						
6																	
7																	
8																	
9																	
10		S-3	Macro core		10"	Brown / Orange		8' to 10', Loose, fine to medium SAND, little coarse sand, trace fine gravel. No impacts.	SP	0.0	Dry						
11																	
12																	
13																	
14																	
15	S-4	Macro core		42"	Brown to Lt. Brown		Loose, fine to very coarse SAND, some fine to coarse gravel, slightly coated and MGP impacted. Moderate to strong MGP odor.	SP	450.0	Dry to Moist							
16																	
17																	
18																	
19																	
20																	
Comments:										PROJECT NO. 11175065							
										BORING NO. IPR-21							

URS Corporation							TEST BORING LOG												
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-21												
CLIENT: KeySpan							SHEET: 2 of 3												
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065												
							BORING LOCATION: Medical Center Lot												
DEPTH FEET	SAMPLE				DESCRIPTION														
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST									
21		S-5	Macro core		38"	Brown to Lt. Brown		20' to 24', Loose, fine to very coarse SAND, some fine to coarse gravel, slightly coated and MGP impacted. Moderate to strong MGP odor.	SP	500.0	Dry to Moist								
22																			
23																			
24																			
25									24' to 25', MGP impacted with some (75%) DNAPL saturation (2" seam). Strong MGP odor	SP		Wet							
26		S-6	Macro core		39"	Black and Brown Staining			25' to 27', Loose, Moderate MGP impact with brown and black staining, fine to coarse SAND, some fine to coarse gravel, coated. Strong MGP odor.	SP	2600.0	Wet							
27																			
28																27' to 30', Heavy MGP impact: Fine to medium sand. Intervals of DNAPL saturation (75% to 100%), heavily stained brown, very strong MGP odor, liner stained.			
29																			
30																			
31	S-7	Macro core		45"	Black and Brown Stained			30' to 32', Heavy MGP impact. 3" seam of 100% DNAPL saturated brown and black, several thin seams of DNAPL heavy sheen, very strong MGP odor. Very fine to medium SAND.	SP	1200.0	Wet								
32																			
33															Lt. Brown				
34																			
35																32' to 35', Loose, very fine to medium SAND. No staining, slight MGP odor.	SP	200.0	Wet
36	S-8	Macro core		40"	Brown Staining			35' to 37', Loose, fine to coarse SAND and fine to coarse GRAVEL. Slight to moderate MGP impact with little brown staining and sheen with moderate MGP odor.	GP	90.0	Wet								
37																			
38															Lt. Brown				
39																			
40																37' to 40', Loose, fine to coarse SAND, trace fine gravel. No staining.	SP	50.0	
																		0.0	

COMMENTS: 24.5', HCN:1. 32.5', HCN:1

PROJECT NO. IPR-21

BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR-21

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core			Lt. Brown		Loose, fine to coarse SAND, trace fine gravel. No staining, no impact.	SP	0.0	Wet
42											
43											
44											
45											
46									End of boring: 45' bgs		
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS: Liner stuck in macrocore.

PROJECT NO. IPR-21

BORING NO. 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR-22							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			TOTAL DEPTH: 85'			
				DIA.		2"			DATE STARTED: 02/01/08			
				WT.					DATE FINISHED: 02/06/08			
				FALL					DRILLER: M. Meade			
								* POCKET PENETROMETER READING		GEOLOGIST: J. Harshman		
								REVIEWED BY:				
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Macro core		48"	Orange / Brown		0' to 4', Medium dense, silty fine to coarse SAND, some fine gravel.	SP	0.0	Dry	
1												
2												
3												
4												
5		S-2	Macro core		52"	Dk. Brown / Brown		4' to 5', Loamy peat-like fine SAND, trace organic and fine gravel.	SP	0.0	Dry	
6												
7												
8												
9												
10		S-3	Macro core		49"	Orange / Yellow		8' to 10', Loose, fine to coarse SAND, trace to little very coarse sand, with little fine gravel.	SP		Dry	
11												
12												
13												
14												
15		S-4	Macro core		48"	Orange / Brown		Loose, fine to very coarse SAND, little to some fine gravel, slight MGP impact at 19.5' to 20', with slight to moderate MGP odor.	SP	0.0	Dry	
16												
17												
18												
19												
20									60.0			
										75.0		

Comments:

PROJECT NO. 11175065

BORING NO. IPR-22

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP	BORING NO.: IPR-22
CLIENT: KeySpan	SHEET: 2 of 5
BORING CONTRACTOR: Fenley and Nicol	JOB NO.: 11175065
	BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				REMARKS	DESCRIPTION				
		NO.	TYPE	BLOWS PER 6"	REC RQD%						
						COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	MOIST
21		S-5	Macro core		48"	Slightly Brown Stained		MGP impacted. Loose, fine to coarse SAND, little to fine gravel. Lightly stained brown (MGP) and coated. Several very thin seams of black stained sand at 23' to 24'. Moderate to strong MGP odor. Liner stained.	SP	290.0	
22											
23											
24											
25											
26		S-6	Macro core		48"			MGP impacted. Loose to medium dense, very fine to medium SAND, intervals of heavy MGP impact with 75 to 100% DNAPL saturation at 27' to 29'. Strong MGP odor. Liner stained.	SP	400.0	Wet
27											
28											
29										687.0	
30											
31		S-7	Macro core		52"	Lt. Brown / Tan		Loose, very fine to fine SAND, trace medium sand, trace fine to coarse sand and fine gravel at 35'. Faint MGP odor, no staining.	SP	75.0	Wet
32											
33											
34											
35											
36		S-8	Macro core		40"	Brown / Lt. Brown		Loose, fine to medium SAND, trace coarse sand. No staining, faint MGP odor.	SP	60.0	Wet
37											
38											
39											
40											

COMMENTS: 22.5', H ₂ S =2.	PROJECT NO.: IPR-22
	BORING NO.: 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO.: IPR-22

CLIENT: KeySpan

SHEET: 3 of 5

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	STRATA SYMBOL	SAMPLE				DESCRIPTION						
		NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
41		S-9	Macro core		42"	Lt. Brown / Tan / Orange		Loose, fine to medium SAND, trace to little coarse sand, trace fine gravel. No impact.	SP	0.0	Wet	
42												
43												
44												
45												
46		S-10	Macro core		35"	Lt. Brown / Yellow / Tan		Loose, fine to coarse SAND, trace fine gravel. No impact.	SP	0.0	Wet	
47												
48												
49												
50												
51		S-11	Macro core		46"	Lt. Brown / Yellow / Tan		Loose, fine to coarse SAND, trace fine gravel, with trace cobble. No impact.	SP	0.0	Wet	
52												
53												
54												
55												
56	S-12	Macro core		29"	Lt. Brown / Yellow / Tan		Loose, fine to coarse SAND, trace fine gravel, with trace cobble. No impact.	SP	0.0	Wet		
57												
58												
59												
60												

COMMENTS:

PROJECT NO.: IPR-22

BORING NO.: 11175065

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-22					
CLIENT: KeySpan							SHEET: 4 of 5					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: Medical Center Lot					
DEPTH FEET	SAMPLE					DESCRIPTION						
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST		
61		S-13	Macro core		no rec.			No recovery, Macro core drive point did not retract during advancement.				
62												
63												
64												
65												
66		S-14	Macro core		30"	Lt. Brown / Orange / Tan		Medium dense, very fine to medium SAND, intervals of color change, no gravel. No impact.	SP	0.0	Wet	
67												
68												
69												
70												
71		S-15	Macro core		Liner Stuck	Lt. Brown / Orange / Tan		Medium dense, very fine to medium SAND, intervals of color change, no gravel. No impact.	SP	0.0	Wet	
72												
73												
74												
75												
76		S-16	Macro core					No recovery of sample, Macro core drive point did not retract upon advancement.				
77												
78												
79												
80												
COMMENTS:							PROJECT NO. IPR-22					
							BORING NO. 11175065					

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR-22

CLIENT: KeySpan

SHEET: 5 of 5

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
81		S-17	Macro core		16"	Lt. Brown / Tan		Loose, very fine to fine SAND. No impact.	SP	0.0	Wet
82											
83											
84											
85											
86								End of boring: 85'			
87											
88											
89											
90											
91											
92											
93											
94											
95											
96											
97											
98											
99											
100											

COMMENTS:

PROJECT NO. IPR-22

BORING NO. 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR-23							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	DRILLING METHOD: Geoprobe			
DATE	TIME	LEVEL	TYPE	TYPE		Macrocore			TOTAL DEPTH: 45'			
				DIA.		2"			DATE STARTED: 01/30/08			
				WT.					DATE FINISHED: 01/30/08			
				FALL					DRILLER: M. Meade			
								* POCKET PENETROMETER READING		GEOLOGIST: J. Harshman		
										REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Macro core		41"	Dk. Brown / Brown		Medium dense, very fine to medium silty SAND, trace coarse sand and coarse gravel. No impact	SP	0.0	Moist	
1												
2												
3												
4												
5												
6		S-2	Macro core		52"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, trace well graded fine gravel. No impact.	SP	0.0	Dry	
7												
8												
9												
10												
11		S-3	Macro core		52"	Lt. Brown / Yellow / Orange		10' to 12', Loose, fine to coarse SAND, trace well graded fine gravel. No impact.	SP	0.0	Dry	
12												
13							Orange / Brown		12' to 15', Loose, gravelly fine to coarse SAND, some fine gravel.	SP	0.0	Dry
14												
15												
16		S-4	Macro core		49"	Orange / Brown		15' to 18', Loose, gravelly fine to coarse SAND, some fine gravel.	SP	0.0	Dry	
17												
18												
19												
20								18' to 20', MGP impacted. Loose, slightly stained brown, fine to coarse SAND, some fine gravel. MGP odor (100 ppm).	SP	100.0	Dry to Moist	

Comments: 23.5', HCN:1.

PROJECT NO. 11175065

BORING NO. IPR-23

URS Corporation							TEST BORING LOG						
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-23						
CLIENT: KeySpan							SHEET: 2 of 3						
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065						
							BORING LOCATION: Medical Center Lot						
DEPTH FEET	SAMPLE					DESCRIPTION							
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST			
21		S-5	Macro core		46"	Lt. Brown		20' to 24', Loose, fine to coarse slightly stained with MGP impact, some fine gravel. MGP odor.	SP	260.0	Dry to Moist		
22													
23													
24													
25													
26		S-6	Macro core		46"	Lt. Brown		24' to 25', MGP impacted. 3" interval of black stained fine to medium SAND, with brown MGP stained fine to coarse sand and some fine gravel. MGP odor.	SP	70.0	Moist to Wet		
27													
28													
29													
30													
31		S-7	Macro core		48"	Lt. Brown / Tan trace Orange		25' to 27.5', Loose, fine to medium SAND, trace coarse sand and fine gravel. MGP odor, sheen, no DNAPL.	SP	270.0	Wet		
32													
33													
34													
35													
36		S-8	Macro core		46"	Lt. Brown		27.5' to 30', Heavy MGP impact. Intervals of DNAPL saturation (75%), black and brown stained. Strong MGP odor. Fine to medium SAND, trace fine gravel. Liner stained.	SP		Wet		
37													
38													
39													
40													
COMMENTS:							PROJECT NO. IPR-23						
							BORING NO. 11175065						

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO: IPR- 23

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core		43"	Lt. Brown / Tan		Loose, fine to medium SAND, trace to little coarse sand, trace fine gravel. No impact.	SP	0.0	Wet
42											
43											
44											
45											
46											
47								End of boring 45' bgs			
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS:

PROJECT NO. IPR- 23

BORING NO. 11175065

URS Corporation										TEST BORING LOG		
PROJECT: KeySpan Hempstead MGP					BORING NO: IPR-24							
CLIENT: KeySpan					LOCATION: Medical Center Lot							
BORING CONTRACTOR: Fenley and Nicol					JOB NO.: 11175065							
GROUNDWATER: ~24' bgs					CAS.	SAMPLER	CORE	TUBE	TOTAL DEPTH: 45'			
DATE	TIME	LEVEL	TYPE	TYPE	Macrocore			DATE STARTED: 01/30/08				
				DIA.	2"			DATE FINISHED: 01/30/08				
				WT.				DRILLER: M. Meade				
				FALL				GEOLOGIST: J. Harshman				
* POCKET PENETROMETER READING										REVIEWED BY:		
DEPTH FEET	SAMPLE					DESCRIPTION					REMARKS	
	STRATA	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	PID	Moist	
0		S-1	Macro core		42"	Dk. Brown		0' to 4', Medium dense, fine to coarse SAND with little silt, some fine gravel.	SP	0.0	Dry	
1												
2												
3												
4												
5		S-2	Macro core		58"	Lt. Brown / Yellow / Orange		4' to 5', Loose, fine to medium SAND, trace coarse sand, little fine gravel. No impact.	SP	0.0	Dry	
6												
7												
8												
9												
10		S-3	Macro core		56"	Lt. Brown / Yellow / Orange		Loose, fine to coarse SAND, little to some fine gravel. No impact.	SP	0.0	Dry	
11												
12												
13												
14												
15		S-4	Macro core		46"	Lt. Brown / Yellow / Orange		15' to 19', Loose, fine to coarse SAND, little to some fine gravel. No impact.	SP	0.0	Dry	
16												
17												
18												
19												
20					Brown		19' to 20', Loose, fine to coarse SAND, some fine gravel. No impact.	SP		Dry		
Comments:								PROJECT NO. 11175065				
								BORING NO. IPR-24				

URS Corporation							TEST BORING LOG					
PROJECT: KeySpan Hempstead MGP							BORING NO: IPR-24					
CLIENT: KeySpan							SHEET: 2 of 3					
BORING CONTRACTOR: Fenley and Nicol							JOB NO.: 11175065					
							BORING LOCATION: Medical Center Lot					
DEPTH FEET	STRATA SYMBOL	SAMPLE				REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks	
		NO.	TYPE	BLOWS PER 6"							PID	MOIST
21		S-5	Macro core			48"	Lt. Brown / Brown			SP	0.0	Dry
22												
23												
24							Brown Stained			SP	0.0	Wet
25											60.0	
26		S-6	Macro core			44"	Black Stained			SP	50.0	Wet
27											10.0	
28												
29											80.0	
30												
31		S-7	Macro core			42"	Brown Stained			SP	400.0	Wet
32												
33							Lt. Brown / Tan			SP	10.0	Wet
34							thin intervals of Orange					
35												
36		S-8	Macro core			38"	Lt. Brown / Tan			SP	33.0	Wet
37												
38											74.0	
39												
40												

COMMENTS: 27', HCN: 6. 32.5', HCN:1. 37' HCN:1 to 12.

PROJECT NO. IPR-24

BORING NO. 11175065

URS Corporation

TEST BORING LOG

PROJECT: KeySpan Hempstead MGP

BORING NO.: IPR-24

CLIENT: KeySpan

SHEET: 3 of 3

BORING CONTRACTOR: Fenley and Nicol

JOB NO.: 11175065

BORING LOCATION: Medical Center Lot

DEPTH FEET	SAMPLE					DESCRIPTION					
	STRATA SYMBOL	NO.	TYPE	BLOWS PER 6"	REC RQD%	COLOR	CONSIST HARD	MATERIAL DESCRIPTION	USCS	Remarks PID MOIST	
41		S-9	Macro core					Loose, fine to coarse SAND, trace fine to coarse gravel. No visible impact, no DNAPL or staining, very faint MGP odor.	SP	43.0	Wet
42											
43											
44											
45											
46									End of boring: 45'		
47											
48											
49											
50											
51											
52											
53											
54											
55											
56											
57											
58											
59											
60											

COMMENTS: 42.5', HCN: 1.

PROJECT NO.: IPR-24

BORING NO.: 11175065