

APPENDIX B

APPENDIX B
BORING LOGS

JOB NO. 5555107

LOG OF BORING NO. B-10

DATE: 7/14/2004

SHEET 2 OF 2

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DISCRPTION	DEAPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV.FT.	PENETR. RESIST BL/8 IN.	
		4": Lt Brn c-m SAND, tr m Gravel. 1" Blk c-m SAND. 4": Multi-colored c SAND, some me Gravel. 4": Brn-Green m-f SAND. 12": Lt Brn - Blk m-c SNAD, tr f Gravel. 2": Multi-colored m-c SAND, tr f Gravel. 3": Grayish Green m-c SAND, tr f Gravel and Silt. 9": Lt Brn m-c SAND, tr f Gravel. 9": Gray - Blk m-c Sand, some f Gravel, tr Silt.	10 11 12 13 14	M3	MacroCore	4'	NA	Staining and a petroleum-like odor from the material at 11 - 12 ft and 14 - 15 ft. PID from 11 - 12 ft. = 42.0 ppm PID from 14 - 15 ft = 38.2 ppm.
	S	4": Brn - Green m-c SAND, tr m Gravel. 3": Brn m SAND, tr f Gravel. 0.25": White m-f SAND. 3": Gray - Green m-c SAND, spots of brown m-c SAND. 1": Blk m-c SAND, tr m Gravel. 11.25": Gray Brn m-c SAND, tr m-c Gravel.	15 16 17 18	M4	MacroCore	3'	NA	Staining, sheen and a petroleum-like odor from the material at 15 - 19 ft. PID = 87.3 ppm
		3.5": Brown m-f SAND, tr f Gravel. 3": Blk m-c SAND, some f-m Gravel. 3": Brn m-f SAND, tr f Gravel and Silt.	20 21 22 23 24	M5	MacroCore	4'	NA	PID = 12.3 ppm Slight petroleum-like odor, sheen and staining.
		33": Med Brn m-c SAND, tr f Gravel. 3": Med Brn c GRAVEL, some c-m Sand.	25 26	M6	MacroCore	3'	NA	PID = 6.8 ppm Slight petroleum-like odor. EOB due to GeoProbe refusal
			27					EOB @ 27.0 ft bgs.

LOG OF BORING

B10 SHEET 1 OF 2

PROJECT Atlas Terminals			PROJECT NO. 5555107		
LOCATION Glendale, Queens, New York			ELEVATION AND DATUM		
DRILLING AGENCY Aquifer Drilling & Testing, Inc.			DATE STARTED 7/14/2004	DATE FINISHED 7/18/2004	
DRILLING EQUIPMENT Track mounted GeoProbe			COMPLETION DEPTH 27	ROCK DEPTH	
SIZE AND TYPE OF BIT GeoProbe Hammer			LOCATION See Attached Figure		
CASING			NO. SAMPLES 6	DIST.	UNDIST.
CASING HAMMER	WEIGHT	DROP	WATER LEVEL	FIRST	COMPL.
SAMPLER 5.0 ft Macro Core			FOREMAN Scott Przysbylski		
SAMPLER HAMMER			INSPECTOR Smita Patel		

NY/CBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV. FT.	PENETR. RESIST. BL/Ø IN.	
		8": Asphalt frags. 6": Dk Brn m-c SAND, tr m Gravel. 4": Lt Brn m-c SAND, tr m Gravel. 8": Dk Brn-Blk m-c SAND, tr f Gravel. 2": Lt Brn m-c SAND, tr f Gravel. 8": Brn m-f SAND, tr Silt.	1 2 3 4 5 6 7 8 9 10	M1	MacroCore	3'	NA	Continuous MacroCose sampling, every 5 ft. PID = 0.0 ppm Collect soil sample from 2 - 4 ft for TCL Herbicides, TCL Pesticides, TCL VOCs, TCL SVOCs, TAL Metals and PCBs analyses.
	F	1.5": Med Brn m-f SAND, tr Silt. 7": Lt Brn f SAND, tr Silt and f Gravel. 3": Lt Brn m-f SAND, tr Silt and f Gravel. 1": Gray m-f Gravel, tr m-f Sand. 7": Lt Brn m-c SAND, tr c Gravel.	5 6 7 8 9 10	M2	MacroCore	3'	NA	PID = 0.0 ppm Collect soil sample from 8 - 10 ft for TCL VOCs, TCL SVOCs, TAL Metals and PCBs analyses.

PROJECT Atlas Terminals			PROJECT NO. 5555107		
LOCATION Glendale, Queens, New York			ELEVATION AND DATUM		
DRILLING AGENCY Aquifer Drilling & Testing, Inc.		DATE STARTED 7/21/2004		DATE FINISHED 7/21/2004	
DRILLING EQUIPMENT Truck - Mounted Drill Rig		COMPLETION DEPTH 29' 9"		ROCK DEPTH	
SIZE AND TYPE OF BIT 4.25" ID Hollow Stem Auger		LOCATION See Attached Figure			
CASING			NO. SAMPLES 9	DIST.	UNDIST.
CASING HAMMER WEIGHT		DROP	WATER LEVEL FIRST		COMPL. 24 HR
SAMPLER 2" OD Split Spoon			FOREMAN Llyod (driller) and Ron (helper)		
SAMPLER HAMMER Automatic hammer			INSPECTOR Smita Patel		

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV. FT.	PENETR. RESIST. BL/6 IN.	
		3': Asphalt and Black Top. 7': Concrete.	1					Continuous split spoon sampling, every 2.0'.
		4': Yellow-Brn c SAND, some m Gravel, concr and road base. 10': Blk m-c GRAVEL, some c Sand, asphalt, concr, glass frags. 4': Gray-Brn f-m SNAD, tr m-f Gravel, asphalt, crick, concr frags.	2	S1	SS	1.5'	10 22 11 11	PID = 0.0 ppm
		4': Gray-Brn f-m SAND, tr f Gravel, asphalt and concr frags. 6': Reddish-rbn f SAND, tr f Gravel and Silt, asphalt, organic frags. 2': Lt Brn - Dk Brn f-m SAND, tr f Gravel.	3				9 15 13 13	PID = 0.0 ppm
	F	2': Blk m-c SAND, tr c Gravel. 8': Dk Brn m-c SAND, tr m-f Gravel. 6': Lt Gray brn f SAND, tr m Gravel. 2': Brn c-m SAND, tr c-m Gravel.	4	S2	SS	1'	8 8 9 12	PID = 0.0 ppm
		4': Brn c-m SAND, some m-c Gravel. 1': Blk f-m SAND, wood frags. 3': Gravel sized pulverized cobble/boulder.	5				16 27 31 48	
		1': Reddish Brn m-f SAND, tr f Gravel. 2': Blk m SAND, c Gravel. 1': Boulder/Cobble 5': Brn m-c SAND, tr f-m Gravel.	6	S3	SS	1.5'	10 12 8 18	Creosote-like odor. PID = 2.3 ppm
	S	1': Boulder/Cobble 11': Reddish Brn c-m SAND, tr m-c Gravel, decayed organic matter.	7	S4	SS	6'	8 12 5 40	PID = 0.0 ppm
			8					
			9					
			10	S5	SS	6'		
			11					
			12	S6	SS	1'		
			13					



Langan

Engineering and Environmental Services

JOB NO. 5555107

LOG OF BORING NO. B-16/MW-16 A, B

DATE: 7/21/2004

SHEET 2 OF 2

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOG	TYPE	RECOV. FT.	PENETR. RESIST. BL/6 IN.	
		8": Reddish Brn c-m SAND, some c-f Gravel, 1/4" diameter boulders. 1": Green f SAND, tr f Gravel.	13 14	S7	SS	9"	14 12 9 13	PID = 0.0 ppm
			15 16 17 18 19					Continuous split spoon sampling every 5.0'.
	S	Brn c-m SAND, tr f-m Gravel, 1/4" diameter boulder.	20 21	S8	SS	4"	25 31 43 17	PID = 0.0 ppm
			22 23 24					
		Brn c-m SAND, tr f-m Gravel, 1/4" diameter boulder.	25 26	S9	SS	NR	41 50/4"	PID = 0.0 ppm Refusal at 26.0 ft bgs. Offset east of original location, by 5.0 ft.
			27 28 29					While augering to 30 ft bgs: Rig chatters at 24' to 26' bgs. Rig chatters at 26.5' to 28' bgs. Rig chatters at 29' to 29'9" bgs. Refusal at 29'9" bgs. Offset east of second location, by 5.0 ft. EOB for 7/21/04. Continue boring on 7/26/04.
			30					EOB @ 29.75 ft bgs.

LOG OF BORING B-16/MW-16 SHEET 1 OF 5

PROJECT Atlas Terminals			PROJECT NO. 5555107		
LOCATION Glendale, Queens, New York			ELEVATION AND DATUM		
DRILLING AGENCY Aquifer Drilling & Testing, Inc.			DATE STARTED 7/26/2004	DATE FINISHED 7/27/2004	
DRILLING EQUIPMENT Truck - Mounted Drill Rig			COMPLETION DEPTH 71'	ROCK DEPTH	
SIZE AND TYPE OF BIT 4.25" ID Hollow Stem Auger			LOCATION See Attached Figure		
CASING			NO. SAMPLES 10	DIST.	UNDIST.
CASING HAMMER WEIGHT			DROP	WATER LEVEL 57'	FIRST
SAMPLER 2" OD Split Spoon			FOREMAN Christopher Stratton (driller)		
SAMPLER HAMMER WEIGHT 140 lb.			DROP 30"	INSPECTOR Stuart Knoop / Smita Patel	

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV. FT.	PENETR. RESIST. BL/6 IN.	
			1					<p>Offset bore hole location from previous location by 10.0'. Auger to 25.0 ft bgs.</p> <p>Transition from dk brn to org-brn soil cuttings (silty sand with gravel and pebble-sized rocks.)</p> <p>Brn f-m SAND, gravel and pebble-sized rock fragments.</p> <p>Hard material from 10.5' to 11.5' bgs.</p>
			2					
			3					
			4					
			5					
			6					
			7					
			8					
			9					
			10					
			11					
			12					
			13					



Langan

Engineering and Environmental Services

JOB NO. 5555107

LOG OF BORING NO. B-16/MW-16

DATE: 7/26/2004

SHEET 2 OF 5

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DISCRIPTION	DEAPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV./FT.	PENETR. RESIST. BL/6 IN.	
			13					
			14					
			15					
			16					
			17					
			18					
			19					
			20					
			21					
			22					
			23					
			24					
			25					
			26	5	5	11"	21 50/5"	PID = 0.1 ppm
	S	Bm silty f-m SAND, some Gravel, pebble sized rock fragments.	27					
			28					
			29					
			30					



Langan

Engineering and Environmental Services

JOB NO. 5555107

LOG OF BORING NO. B-16/MW-16

DATE: 7/26/04-7/27/04

SHEET 3 OF 5

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC.	TYPE	RECOV. FT.	PENETR. RESIST. BL/P IN.	
		Brn silty f-m SAND, some Gravel, pebble-sized rock fragments.	30 31	S2	SS	3'	50/3'	PID = 0.0 ppm
		7": Dk Brn silty f-m SAND, some pebble-sized rock fragments. 12": Gray gravelly f-m SAND, pebble-sized rock fragments, lens of blk stained material.	32 33	S3	SS	19"	40 50 50 50/1'	PID = 2.0 ppm
			34 35					Resistant material at 34' bgs. Brn pebbly f-m SAND, some Silt. Very Pebbly at 35' bgs.
			36 37					Gray Brn gravelly f-m SAND, some Silt.
		Brn f-m SAND, some Silt, some pebble-sized rock fragments (rounded).	38 39	S4	SS	5'	12 50/5'	PID = 115 ppm Auger refusal at 39' bgs. Shut down drilling and continue on 7/27/04.
			40 41					7/27/04: Air rotary drilling from 28' to 42' bgs. Cuttings from 40' to 42': Brn c SAND, tr c-f Gravel.
		Multi-colored c-m SAND, tr m-c Gravel.	42 43	S5	SS	1'	10 10 23 17	PID = 0.0 ppm
			44 45 46 47					

JOB NO. 5555107

LOG OF BORING NO. B-16/MW-16

DATE: 7/27/2004

SHEET 4 OF 5

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DISCRIPTION	DEPTH SCALE	SAMPLES				REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV. FT.	PENETR. RESIST. BL/6 IN.	
		No recovery.	48				50/3*	
			49	S6	SS	NR		
			50					
			51					
			52					
		No recovery.	53				50/3*	
			54	S7	SS	NR		
			55					
	S	Multi-colored c SAND, tr c-m Gravel, (moist).	56	S8	SS	1'4"	5 5 23 30	PID = 0.0 ppm
			57					
		Multi-colored c-m SAND, tr f Gravel and Silt, (wet).	58	S9	SS	6"	8 30 23 7	PID = 0.0 ppm
			59					
		Multi-colored c-m SAND, tr f Gravel (wet).	60	S10	SS	6"	7 9 13 15	PID = 0.0 ppm
			61					
			62					
			63					Auger to 71 ft bgs and begin monitoring well installation.
			64					

JOB NO. 5555107 LOG OF BORING NO. B-16/MW-16
 DATE: 7/27/2004 SHEET 5 OF 5

NYCBC CLASS.	MATERIAL SYMBOL	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLES			REMARKS (DRILLING FLUID, DEPTH OF CASING, CASING BLOWS, FLUID LOSS, ETC.)
				NO. LOC	TYPE	RECOV. FT. PENETR. RESIST. BL/IN.	
			65				Install monitoring well at B-16 location. Monitoring well depth is 71.0 ft bgs. Bentonite and grout slurry from 0.75 to 48.0 ft bgs. Bentonite chips from 48.0 - 50.0 ft bgs. # 1 Morie Sand from 50.0 to 71.0 ft bgs. A PVC riser sump from 67.0 to 69.0 ft bgs. SWell screen from 52.0 to 57.0 ft bgs. Installation was completed on 7/27/04. See Monitoring Well, MW-16 Construction Log for details.
			66				
			67				
			68				
			69				
			70				
			71				EOB at 71.0 ft bgs.
			72				
			73				
			74				
			75				
			76				
			77				
			78				
			79				
			80				
			81				