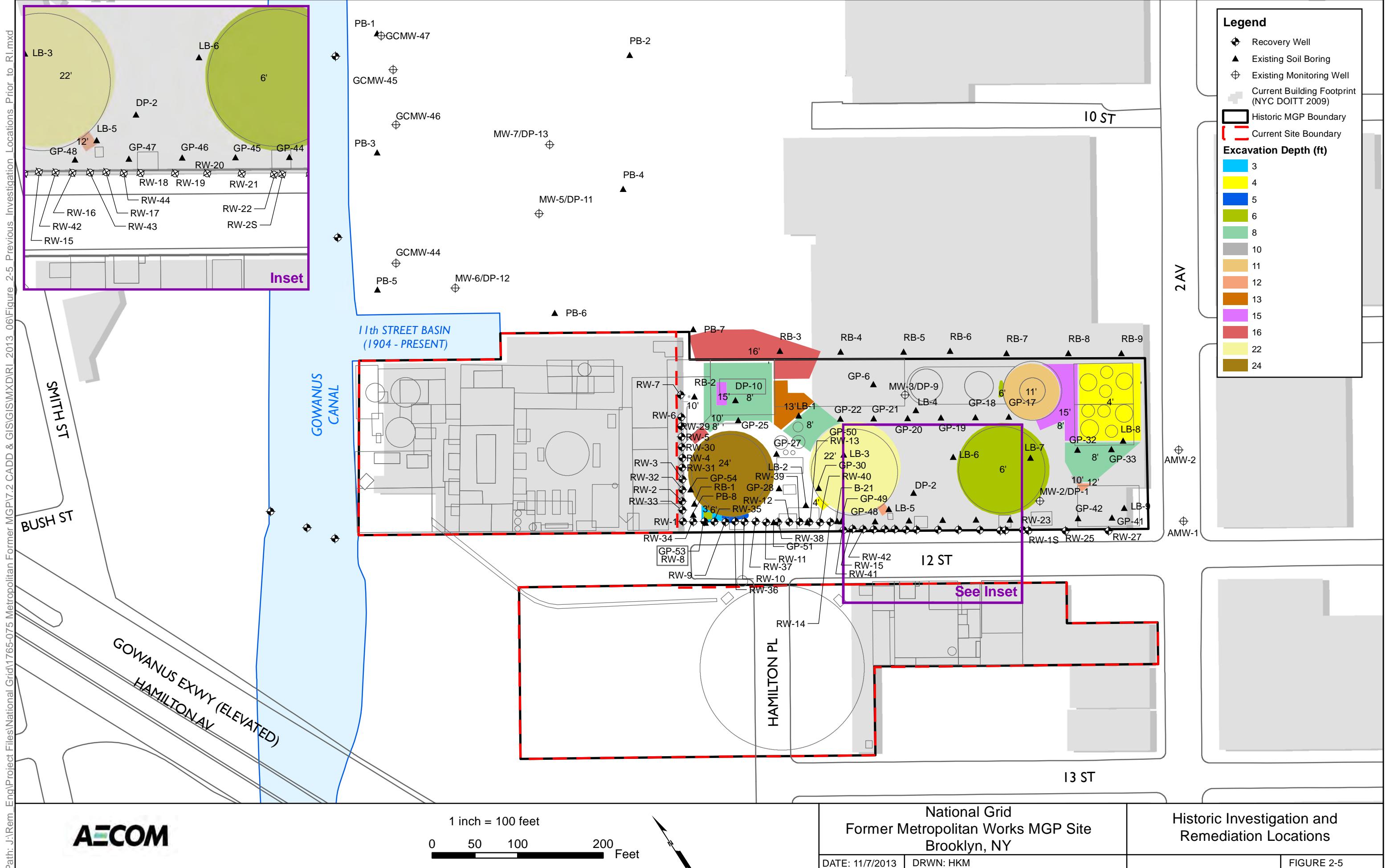
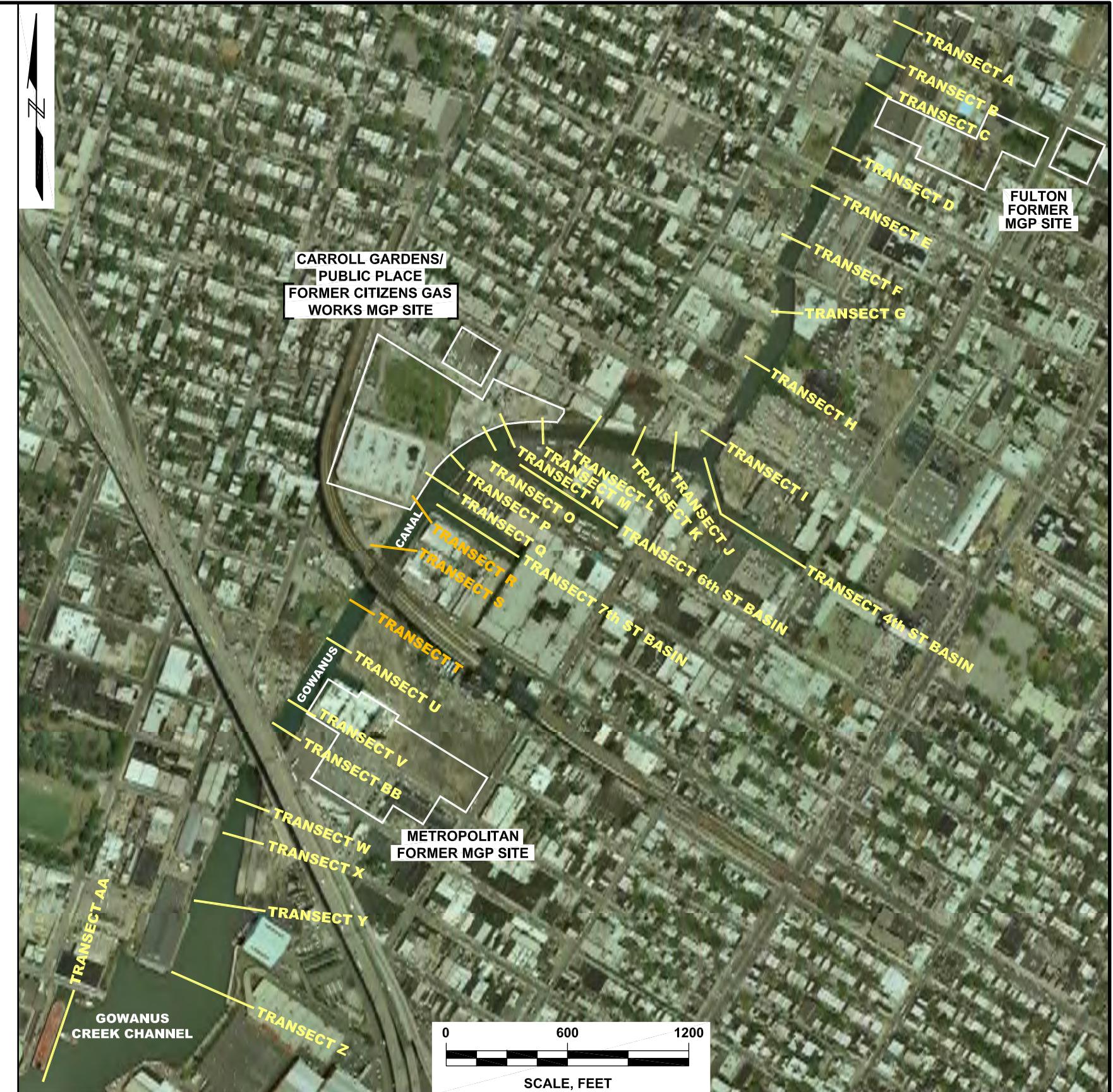
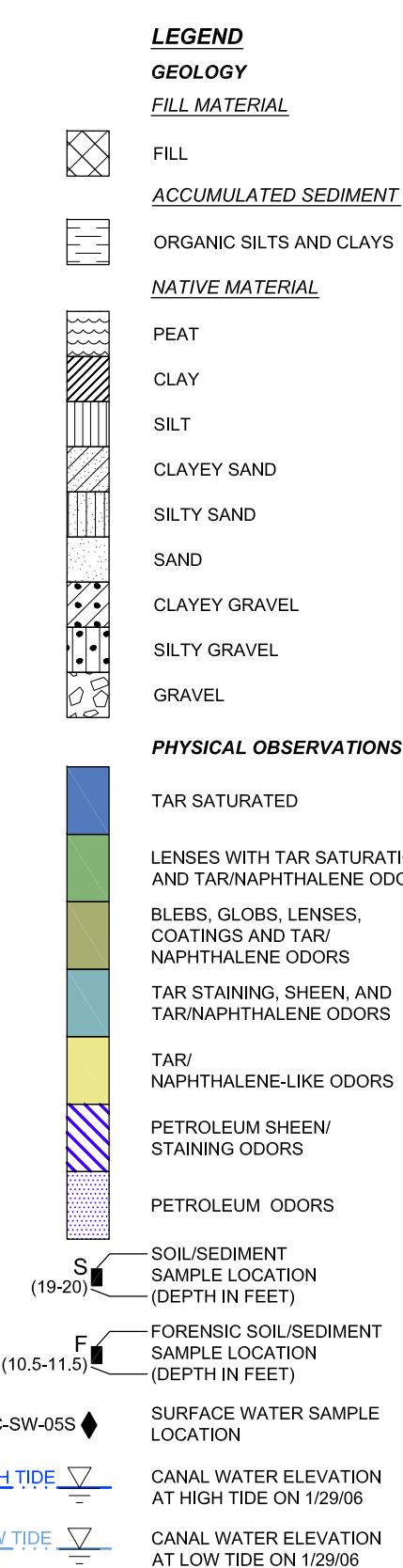
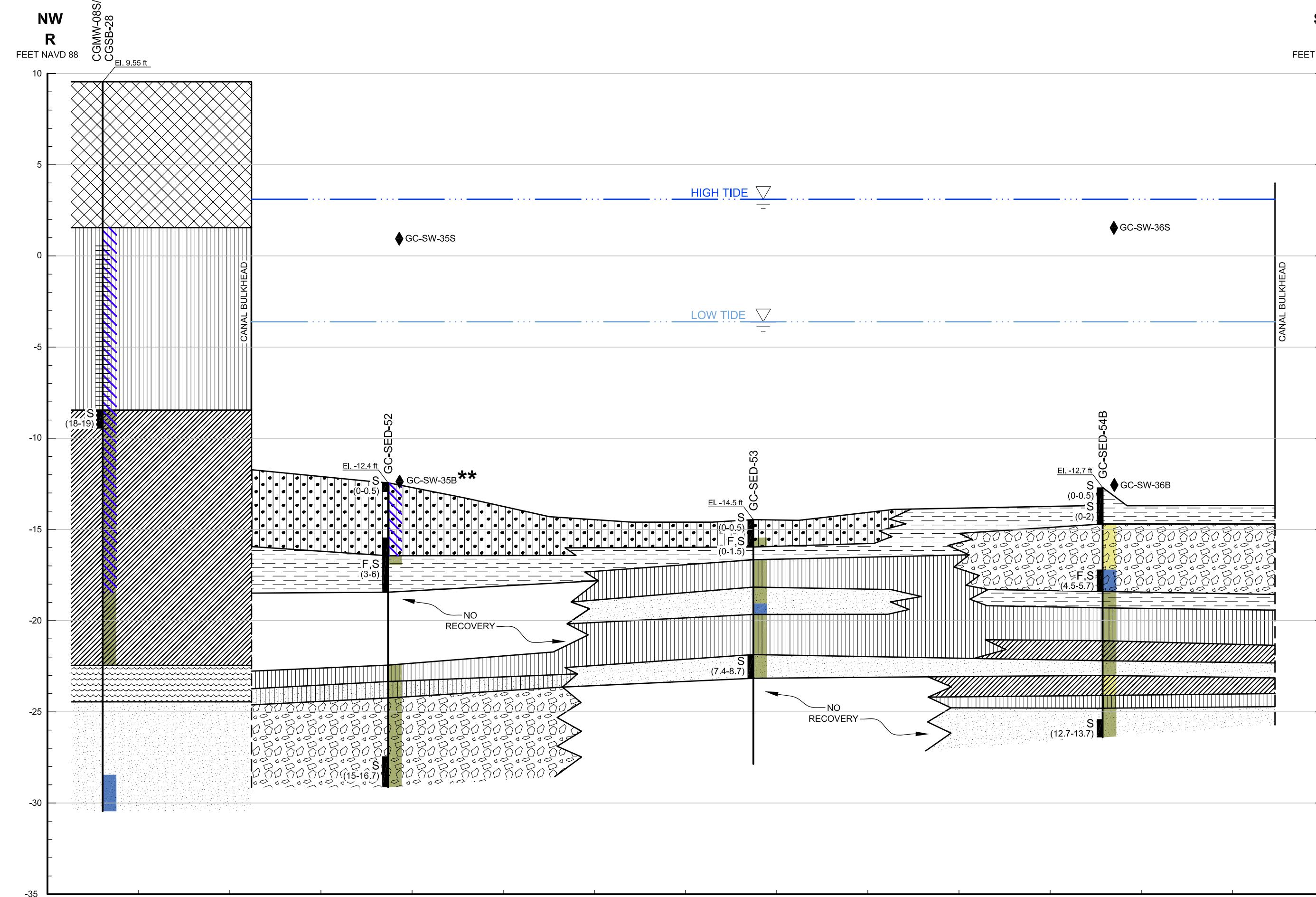


Historical Boring Logs for Locations illustrated on RI Report Figures

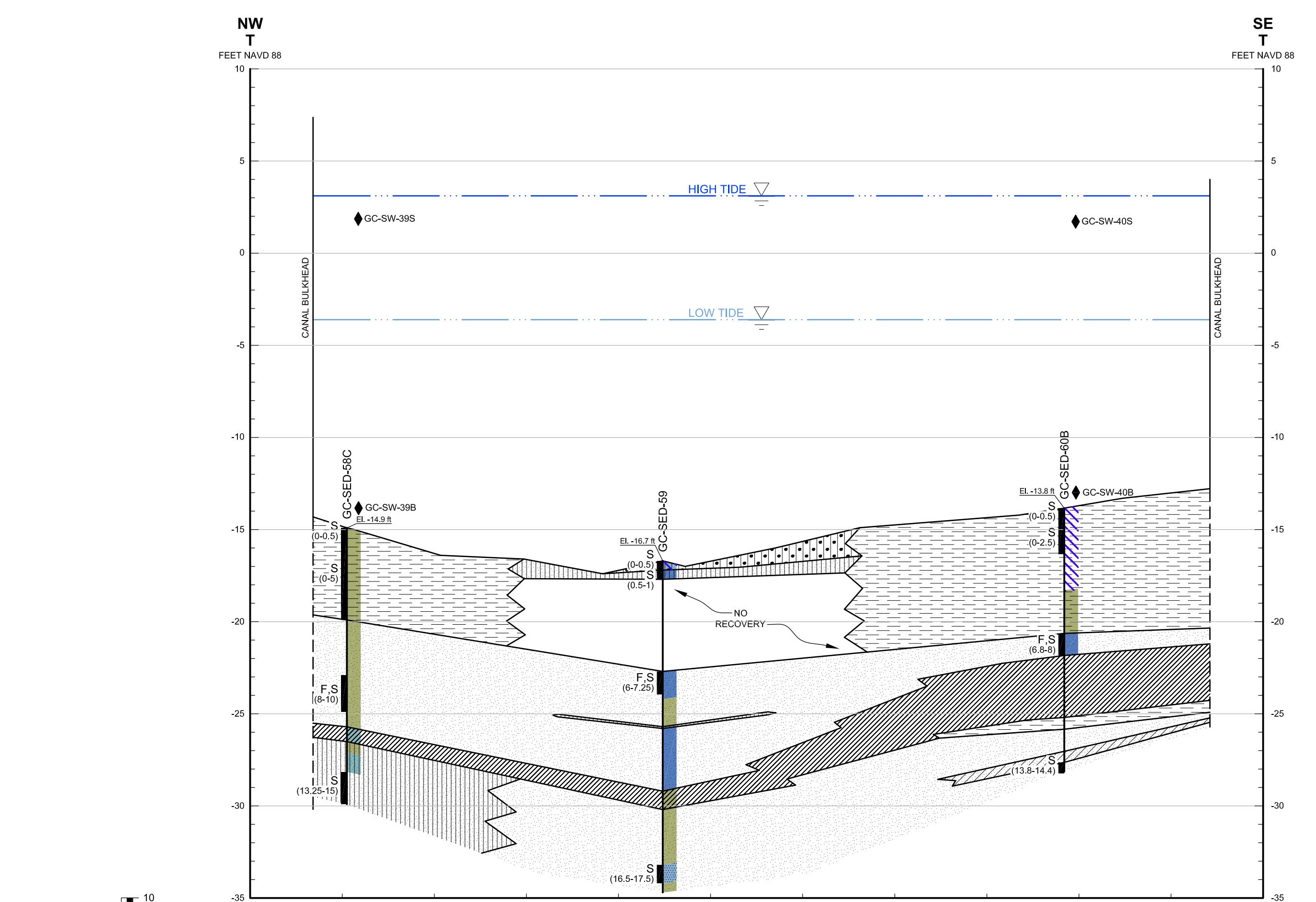
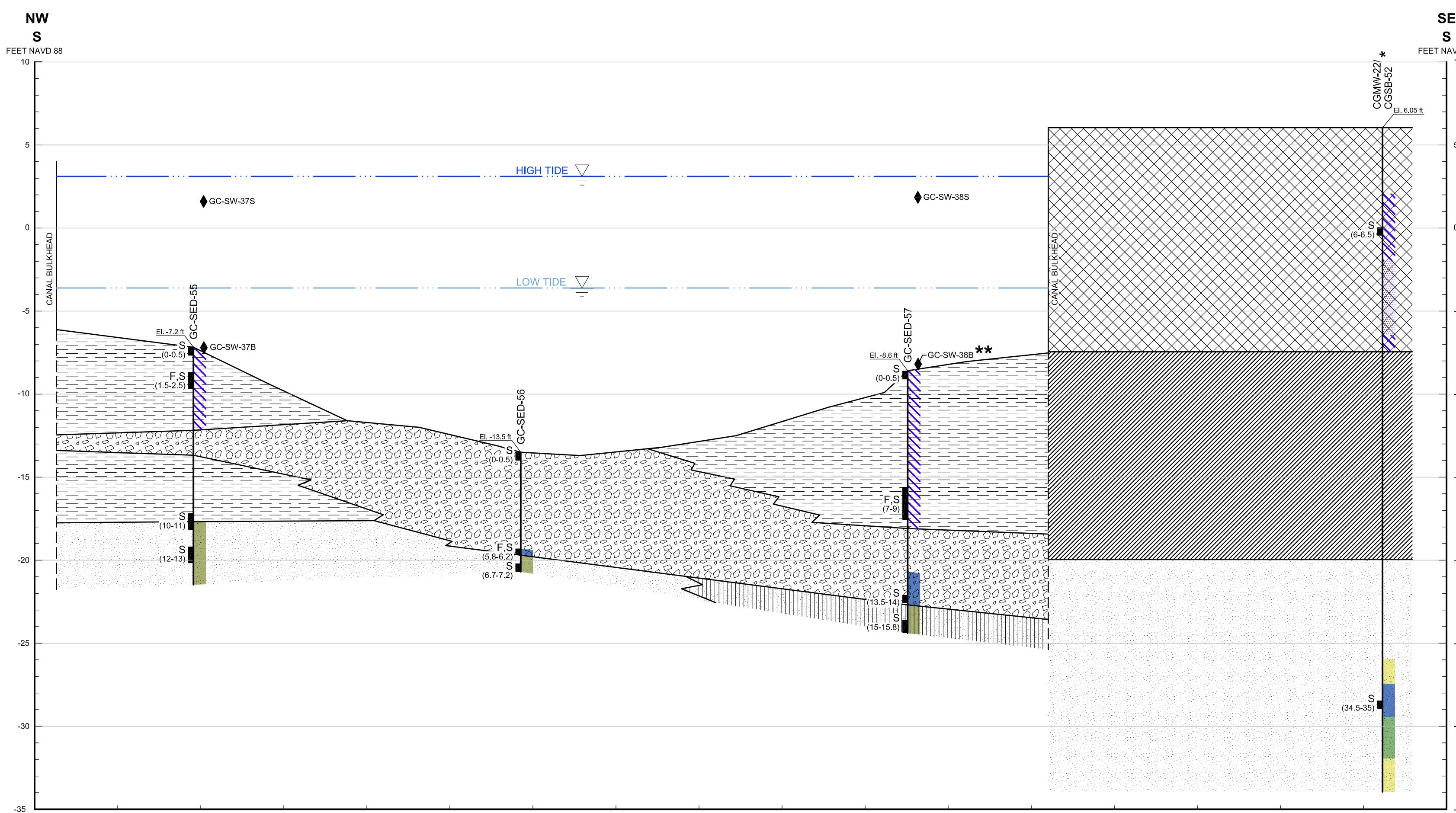


NOTES:

1. TIDE MEASUREMENTS ARE FROM THE BATTERY, NY STATION ON JANUARY 29, 2006 AT 1:36 AM AND 7:42 AM (<http://tidesandcurrents.noaa.gov>).
2. SEDIMENT SURFACE ELEVATIONS OBTAINED DURING REMOTE SENSING SURVEY CONDUCTED IN OCTOBER 2005. SEDIMENT CORE LOCATIONS OBTAINED DURING CORING ACTIVITIES CONDUCTED IN DECEMBER 2005 AND JANUARY 2006.
3. GOWANUS CANAL BULKHEAD LOCATION BASED ON AERIAL PHOTOGRAPH OBTAINED FROM BLUE SKY INTERNATIONAL LTD. ALL RIGHTS RESERVED. COPYRIGHT 2006. SURFACE ELEVATIONS AND DEPTHS OF CANAL BULKHEAD ARE UNKNOWN.
4. HORIZONTAL DATUM: NEW YORK STATE PLANE COORDINATE SYSTEM (EAST ZONE, NORTH AMERICAN DATUM (NAVD88)). VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM (NAVD 88).
5. *SOIL BORING COMPLETED AS PART OF THE CARROLL GARDENS/PUBLIC PLACE (FORMER CITIZENS GAS WORKS MGP) REMEDIAL INVESTIGATION. GEOLOGY AND IMPACTS SHOWN ARE TO 40 FEET BELOW GROUND SURFACE.
6. **WATER SAMPLE ELEVATION DEPICTED IS APPROXIMATE.
7. PHYSICAL OBSERVATIONS AND GEOLOGIC INFORMATION PRESENTED ARE BASED UPON FIELD CONDITIONS OF SUBSURFACE MATERIALS ENCOUNTERED BY GEI DURING REMEDIAL INVESTIGATION ACTIVITIES.
8. LABORATORY ANALYTICAL RESULTS ARE SUMMARIZED IN TABLES 3 THROUGH 12 IN THE REMEDIAL INVESTIGATION TECHNICAL REPORT.
9. SEDIMENT SAMPLE DEPTH IS REFERENCED TO FEET BELOW THE BOTTOM OF THE GOWANUS CANAL. SUBSURFACE SOIL BORING SAMPLE DEPTH INFORMATION IS REFERENCED TO FEET BELOW GROUND SURFACE.



TRANSECT LOCATION MAP



SOURCES:

1. SANBORN MAPS (1886 THROUGH 1996)
2. PHOTOGRAPH OBTAINED FROM BLUE SKY INTERNATIONAL LTD. ALL RIGHTS RESERVED. COPYRIGHT 2006.
3. OCEAN SURVEYS, INCORPORATED. REMOTE SENSING SURVEY FOR UTILITY CROSSINGS GOWANUS CANAL, BROOKLYN, NEW YORK (OSI REPORT #05ES951) DATED DECEMBER 13, 2005.
4. OCEAN SURVEYS, INCORPORATED. FINAL REPORT GOWANUS CANAL CORING OPERATIONS BROOKLYN, NEW YORK DATED FEBRUARY 16, 2006.
5. SURVEY OF CARROLL GARDENS/PUBLIC PLACE SOIL BORINGS CONDUCTED BY GEI CONSULTANTS, INC. ON DECEMBER 3-4, 2002; MARCH 4-6, 2003; JUNE 4-6, 2003; JULY 10, 2003 AND JULY 19, 2006. SURVEYED BY NEW YORK STATE-LICENSED SURVEYOR NO. 050146.
6. FINAL REMEDIAL INVESTIGATION REPORT CARROLL GARDENS/PUBLIC PLACE PREPARED BY GEI CONSULTANTS INC. OCTOBER 2005.

DRAFT

REMEDIAL INVESTIGATION TECHNICAL REPORT
GOWANUS CANAL
BOROUGH OF BROOKLYN, NEW YORK
KEYSPAN CORPORATION
PROJECT NO.: 061140-3-1205

GEI Consultants
455 WINDING BROOK DRIVE
SUITE 201
GLASTONBURY, CONNECTICUT 06033

GOWANUS CANAL: MIDDLE REACH
CROSS SECTION OF
TRANSECTS R, S AND T

March 2007

Plate 14

MUESER RUTLEDGE CONSULTING ENGINEERS
BORING LOG

PROJECT: LOWE'S HOME CENTER
LOCATION: BROOKLYN, NEW YORK

BORING NO. B-21
SHEET 1 OF 3
FILE NO. 9446
SURFACE ELEV. 10.5
RES. ENGR. RANDOLPH NUNEZ

DAILY PROGRESS	SAMPLE			SAMPLE DESCRIPTION	STRATA	DEPTH	CASING BLOWS	REMARKS
	NO.	DEPTH	BLOWS/6"					
06:45 12-18-00 Monday 30°F	1D	0.0	40-29	Brown fine to coarse sand, some silt, trace gravel, brick (Fill) (SM)	F		DRILLED	
		2.0	32-31	Brown coarse to fine sand, some gravel, silt, trace brick (Fill) (SM)			AHEAD	
	2D	2.0	9-20				4"	
		4.0	23-15				5	
	3D	5.0	1-3	Brown fine to coarse sand, some silt, trace brick, cinders, vegetation (Fill) (SM)				
		7.0	3-3	Brown gray peat, some silty clay (Pt)				WC=125
	4D	7.0	1-1					
		9.0	1-1					
5D	10.0	1-1		Brown peat, trace vegetation (Pt)	O			WC=281
		12.0	1-1					
	6D	12.0	5-7	Top 7": Do 5D, tr gravel, bricks, glass (Pt) Bot 12": Gray brown fine to medium sand, some silt, trace gravel, mica (SM)				6D Top: WC=351
		14.0	9-6					
	7D	15.0	1-1	Brown fine sand, some silt (SM)				
		17.0	2-2					Sample saturated with water.
	8D	17.0	3-1	Top 11": Do 7D, trace vegetation (SM)				
		19.0	2-2	Bot 13": Brown peat, trace vegetation (Pt)				8D Bot: WC=259
9D	20.0	1-1		Gray silty fine sand, trace peat (SM)	S1			
		22.0	2-1					
	10D	25.0	10-12					
		27.0	16-19	Gray silty fine sand, trace mica (SM)				Petroleum odor.
	11D	30.0	5-3					
		32.0	6-5	Soft gray clayey silt, trace fine sand (ML)				WC=25
	12D	35.0	WH/12"	Top 10": Do 11D (ML)	M			
		37.0	13-17	Bot 7": Gray brown fine sand, some silt, mica (SM)				12D Top: pp=0.5, WC=33
	13D	40.0	WR-4	Soft gray clayey silt, some fine sand, trace mica (ML)				WC=32
		42.0	4-3					
	14D	45.0	15-20	Brown fine sand, some silt, trace gravel (SM)				
		47.0	21-23					
	15D	50.0	18-26	Brown fine sand, some silt, trace mica (SM)	S1			
		52.0	24-26					Petroleum odor; sheens.

MUESER RUTLEDGE CONSULTING ENGINEERS
BORING LOG

PROJECT: LOWE'S HOME CENTER
LOCATION : BROOKLYN, NEW YORK

BORING NO. B-21
SHEET 2 OF 3
FILE NO. 9446
SURFACE ELEV. 10.5
RES. ENGR. RANDOLPH NUNEZ

MUESER RUTLEDGE CONSULTING ENGINEERS

PROJECT LOWE'S HOME CENTER
 LOCATION BROOKLYN, NEW YORK
 BORING LOCATION SEE PLAN

BORING NO. B-21
 SHEET 3 OF 3
 FILE NO. 9446
 SURFACE ELEV. 10.5
 DATUM BOROUGH PRESIDENT OF
BROOKLYN HIGHWAY

BORING EQUIPMENT AND METHODS OF STABILIZING BOREHOLE

TYPE OF BORING RIG	TYPE OF FEED DURING CORING	CASING USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO			
TRUCK	<u>CME-55</u>	dia., in.	<u>4</u>	DEPTH, FT. FROM	<u>0</u>	TO	<u>20</u>
SKID	MECHANICAL	X		DEPTH, FT. FROM		TO	
BARGE	HYDRAULIC			DEPTH, FT. FROM		TO	
OTHER	OTHER			DEPTH, FT. FROM		TO	

TYPE AND SIZE OF:	DRILLING MUD USED	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
D-SAMPLER <u>2" O.D. SPLIT SPOON</u>	DIAMETER OF ROTARY BIT, IN.	<u>3-7/8</u>	
U-SAMPLER	TYPE OF DRILLING MUD	<u>QUIK - GEL</u>	
S-SAMPLER	AUGER USED	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
CORE BARREL	TYPE AND DIAMETER, IN.		
CORE BIT	CASING HAMMER, LBS.	<u>300</u>	AVERAGE FALL, IN. <u>24</u>
DRILL RODS <u>N</u>	*SAMPLER HAMMER, LBS.	<u>140</u>	AVERAGE FALL, IN. <u>30</u>

WATER LEVEL OBSERVATIONS IN BOREHOLE

*SAFETY HAMMER USED.

DATE	TIME	DEPTH OF HOLE (FEET)	DEPTH OF CASING (FEET)	DEPTH TO WATER (FEET)	CONDITIONS OF OBSERVATION
					NO OBSERVATIONS MADE.

PIEZOMETER INSTALLED YES NO SKETCH SHOWN ON _____

STANDPIPE: TYPE ID, IN. LENGTH, FT. TOP ELEV.
 INTAKE ELEMENT: TYPE OD, IN. LENGTH, FT. TIP ELEV.
 FILTER: MATERIAL OD, IN. LENGTH, FT. BOT. ELEV.

PAY QUANTITIES

2.5" DIA. DRY SAMPLE BORING	LIN. FT. <u>82</u>	NO. OF 3" SHELBY TUBE SAMPLES	
3.5" DIA. U-SAMPLE BORING	LIN. FT. <u></u>	NO. OF 3" UNDISTURBED SAMPLES	
CORE DRILLING IN ROCK	LIN. FT. <u></u>	OTHER:	

BORING CONTRACTOR	<u>JERSEY BORING & DRILLING CO. INC.</u>		
DRILLER	<u>RAY LYNCH</u>	HELPERS	<u>EDWIN FELICIANO</u>
REMARKS	<u>BOREHOLE GROUTED UPON COMPLETION.</u>		
RESIDENT ENGINEER	<u>RANDOLPH NUNEZ</u>	DATE	<u>12-18-00</u>
		BORING NO.	<u>B-21</u>

 <p>GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300</p>				CLIENT: <u>National Grid</u>	PROJECT: <u>Citizens OU-2</u>	CITY/STATE: <u>Brooklyn, New York</u>	BORING LOG		
				GEI PROJECT NUMBER: <u>093250-2-1201</u>	PAGE <u>1 of 3</u>	CGSB-146			
LOCATION: NORTHING (FT): _____ EASTING (FT): _____ TOTAL DEPTH (FT): <u>80.0</u> DRILLED BY: <u>Boart Longyear / Frank Gardella</u> DATUM VERT. / HORIZ.: <u>NAVD 88 / NAD 83</u> LOGGED BY: <u>Chris Anastasiou</u> DATE START / END: <u>11/6/2012 - 11/7/2012</u> DRILLING DETAILS: WATER LEVEL DEPTHS (FT): <u>▽ 20.00 11/7/2012</u> GENERAL NOTE: _____									
ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION		
ELEV. FT.	DEPTH FT.	TYPE and NO.	PEN/REC IN./IN.	PID (PPM)	STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
0		60/NM							(0'- 0.1') ASPHALT. (0.1'- 4.5') SILTY SAND WITH GRAVEL (SM); ~55% sand, fine to coarse, ~25% gravel, fine to coarse, ~20% fines; moist, brown, brick fragments. FILL.
5		60/48	1325				PLO		(4.5'- 5') BRICK. (5'- 6.9') SILTY SAND WITH GRAVEL (SM); ~40% sand, fine to coarse, ~30% gravel, fine to coarse, ~30% fines; moderate petroleum-like odor, black.
							PLO		(6.9'- 7.3') SILTY SAND (SM); ~80% sand, fine to coarse, ~20% fines; moderate petroleum-like odor, dark brown.
							PLO		(7.3'- 8.3') SILTY SAND (SM); ~85% sand, fine, ~15% fines; moderate petroleum-like odor, dark black.
							PLO		(8.3'- 10') SILTY SAND (SM); ~85% sand, fine, ~15% fines; tan and brown.
10		60/48	372				PLO		(10'- 11.9') SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; moderate petroleum-like odor, black staining.
							PLO		(11.9'- 12.5') SILTY SAND (SM); ~85% sand, fine to medium, ~15% fines; moderate petroleum-like odor, dark brown.
							PLO		(12.5'- 15') SILTY SAND (SM); ~80% sand, fine to medium, ~20% fines; moderate petroleum-like odor, brown.
15		60/48	32.3						(15'- 18') BOG MATERIAL.
									(18'- 20') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to medium, ~10% fines; gray.
20		60/48	104.3						(20'- 25') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to medium, ~10% fines; brown.
NOTES: <small>PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES PLO = PETROLEUM LIKE ODOR CrLO= CREOSOTE LIKE ODOR PID = PHOTOIONIZATION DETECTOR READING (PPM) FT. = FEET TLO = TAR LIKE ODOR OLO = ORGANIC LIKE ODOR JHS = JAR HEADSPACE PID READING (PPM) CLO = CHEMICAL LIKE ODOR SLO = SULFUR LIKE ODOR NA = NOT APPLICABLE Q_p = POCKET PENETROMETER ALO = ASPHALT LIKE ODOR NM = NOT MEASURED S_v = TORVANE PEAK MLO = MUSTY LIKE ODOR</small>									



GEI Consultants, Inc.
455 Winding Brook Road
Glastonbury, CT 06033
(860) 368-5300

CLIENT: National Grid
PROJECT: Citizens OU-2
CITY/STATE: Brooklyn, New York
GEI PROJECT NUMBER: 093250-2-1201

BORING LOG

AGE
of 3

CGSB-146

ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
		TYPE and NO.	PEN/REC IN./IN.	PID (PPM)					
	25								(25'- 30') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; wet, brown.
	30	60/48							(30'- 33.8') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; wet, brown.
	35	60/48							(33.8'- 35') SILTY SAND (SM); ~80% sand, fine to medium, ~20% fines; wet, brown.
	40	60/48						CGSB-146 (40-45)	(35'- 37.5') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; brown, orange band of iron.
	42.7								(37.5'- 38.8') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; gray.
	43.8								(38.8'- 40') SANDY SILT (ML); ~50% sand, fine, ~50% fines; gray.
	40	60/48							(40'- 42.7') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; grayish brown.
	45	60/48							(42.7'- 45') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; brownish orange.
	46.7								(45'- 46.7') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.
	47.5								(46.7'- 47.5') SILTY SAND (SM); ~80% sand, fine to medium, ~20% fines; wet, brown.
	47.5								(47.5'- 50') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; brown.
	50	60/48							(50'- 55') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; wet, brown.

 <p>GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300</p>							CLIENT: National Grid	PROJECT: Citizens OU-2	CITY/STATE: Brooklyn, New York	GEI PROJECT NUMBER: 093250-2-1201	BORING LOG
ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION		PAGE 3 of 3	CGSB-146	
		TYPE and NO.	PEN/REC IN./IN.	PID (PPM)	VISUAL IMPACTS	ODOR					
	55	60/36					(55'- 56.7') WIDELY GRADED SAND (SW); ~85% sand, fine to coarse, ~10% gravel, fine to coarse, ~5% fines; wet, brown.				
	56.7						(56.7'- 57.2') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine, ~5% fines; wet, red.				
	57.2						(57.2'- 60') WIDELY GRADED SAND (SW); ~90% sand, fine to coarse, ~5% gravel, fine to coarse, ~5% fines; wet, brown.				
	60	60/30					(60'- 65') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~30% gravel, fine to coarse, ~5% fines; wet, brown.				
	65	60/48					(65'- 75') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% gravel, fine to coarse, ~60% sand, fine to coarse; brown.				
	70	60/44									
	75	60/48					(75'- 80') WIDELY GRADED SAND WITH GRAVEL (SW); ~65% sand, fine to coarse, ~30% gravel, fine to coarse, ~5% fines; light brown.				
	80						End of Boring at 80 feet.				
NOTES:											
PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL				ppm = PARTS PER MILLION			NLO = NAPHTHALENE LIKE ODOR		CrLO= CREOSOTE LIKE ODOR		
REC = RECOVERY LENGTH OF SAMPLE				IN. = INCHES			PLO = PETROLEUM LIKE ODOR		OLO = ORGANIC LIKE ODOR		
PID = PHOTOIONIZATION DETECTOR READING (PPM)				FT. = FEET			TLO = TAR LIKE ODOR		SLO = SULFUR LIKE ODOR		
JHS = JAR HEADSPACE PID READING (PPM)				CLO = CHEMICAL LIKE ODOR			ALO = ASPHALT LIKE ODOR		MLO = MUSTY LIKE ODOR		
NA = NOT APPLICABLE		Q _p = POCKET PENETROMETER		S _v = TОРVANE PEAK							

 <p>GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300</p>				CLIENT: <u>National Grid</u>	PROJECT: <u>Citizens OU-2</u>	CITY/STATE: <u>Brooklyn, New York</u>	GEI PROJECT NUMBER: <u>093250-2-1201</u>	BORING LOG	
				PAGE <u>1 of 3</u>	CGSB-147				
LOCATION: NORTHING (FT): _____ EASTING (FT): _____ DRILLED BY: <u>Boart Longyear / Frank Gardella</u> LOGGED BY: <u>Chris Anastasiou</u> DRILLING DETAILS: WATER LEVEL DEPTHS (FT): <u>▽ 20.00 11/8/2012</u> GENERAL NOTE: _____									
ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION
ELEV. FT.	DEPTH FT.	TYPE and NO.	PEN/REC IN./IN.	PID (PPM)					
	0	60/NM							(0'- 0.1') ASPHALT. (0.1'- 5') WIDLEY GRADED GRAVEL WITH SAND (GW); ~70% gravel, fine to coarse, ~30% sand, fine to coarse; FILL.
	5	60/36	181				NLO		(5'- 8.6') ~40% sand, fine to coarse; moderate naphthalene-like odor, black tar staining. FILL.
	10	60/48					NLO		(8.6'- 10') SANDY SILT (ML); ~60% fines, ~40% sand, fine to coarse; moderate naphthalene-like odor, black staining. (10'- 15') SILT (ML); ~100% fines; moderate organic-like odor, gray.
	15	60/48	25.2				OLO		(15'- 20') SILT (ML); ~100% fines.
	20	60/24	38						(20'- 25') NARROWLY GRADED SAND (SP); ~95% sand, fine to medium, ~5% fines; wet, gray.
NOTES: PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL ppm = PARTS PER MILLION NLO = NAPHTHALENE LIKE ODOR REC = RECOVERY LENGTH OF SAMPLE IN. = INCHES PLO = PETROLEUM LIKE ODOR CrLO= CREOSOTE LIKE ODOR PID = PHOTOIONIZATION DETECTOR READING (PPM) FT. = FEET TLO = TAR LIKE ODOR OLO = ORGANIC LIKE ODOR JHS = JAR HEADSPACE PID READING (PPM) CLO = CHEMICAL LIKE ODOR SLO = SULFUR LIKE ODOR NA = NOT APPLICABLE Q _p = POCKET PENETROMETER ALO = ASPHALT LIKE ODOR NM = NOT MEASURED S _v = TORVANE PEAK MLO = MUSTY LIKE ODOR									

 <p>GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300</p>							CLIENT: National Grid	PROJECT: Citizens OU-2	CITY/STATE: Brooklyn, New York	BORING LOG		
ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	VISUAL IMPACTS	ODOR	ANALYZED SAMPLE ID	PAGE 2 of 3	CGSB-147		
		TYPE and NO.	PEN/REC IN./IN.	PID (PPM)					SOIL / BEDROCK DESCRIPTION			
	25							CGSB-147 (38-40)	<p>(25'- 25.7') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; slight naphthalene-like odor, gray.</p> <p>(25.7'- 25.8') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; slight naphthalene-like odor, gray, tar band.</p> <p>(25.8'- 28.2') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; brown.</p> <p>(28.2'- 30') WIDELY GRADED SAND WITH SILT (SW-SM); ~90% sand, fine to coarse, ~10% fines; slight naphthalene-like odor, gray.</p> <p>(30'- 31.3') SILTY SAND (SM); ~85% sand, fine to coarse, ~15% fines; brown.</p> <p>(31.3'- 35') SILTY SAND (SM); ~85% sand, fine, ~15% fines; brown.</p> <p>(35'- 36.5') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; brown.</p> <p>(36.5'- 37.3') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; gray.</p> <p>(37.3'- 45') WIDELY GRADED SAND (SW); ~95% sand, fine to coarse, ~5% fines; brown.</p>			
	25	60/38	33.5				NLO					
	25						NLO					
	30	60/48					NLO					
	35	60/40										
	40	60/48										
	45	60/48										
	50	60/36										
NOTES:												
PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL REC = RECOVERY LENGTH OF SAMPLE PID = PHOTOIONIZATION DETECTOR READING (PPM) JHS = JAR HEADSPACE PID READING (PPM)					ppm = PARTS PER MILLION IN. = INCHES FT. = FEET			NLO = NAPHTHALENE LIKE ODOR PLO = PETROLEUM LIKE ODOR TLO = TAR LIKE ODOR CLO = CHEMICAL LIKE ODOR ALO = ASPHALT LIKE ODOR				
NA = NOT APPLICABLE NM = NOT MEASURED					Q _p = POCKET PENETROMETER S _v = TОРVANE PEAK			CrLO= CREOSOTE LIKE ODOR OLO = ORGANIC LIKE ODOR SLO = SULFUR LIKE ODOR MLO = MUSTY LIKE ODOR				

 <p>GEI Consultants, Inc. 455 Winding Brook Road Glastonbury, CT 06033 (860) 368-5300</p>							CLIENT: National Grid	PROJECT: Citizens OU-2	CITY/STATE: Brooklyn, New York	GEI PROJECT NUMBER: 093250-2-1201	BORING LOG
ELEV. FT.	DEPTH FT.	SAMPLE INFO			STRATA	ANALYZED SAMPLE ID	SOIL / BEDROCK DESCRIPTION		PAGE 3 of 3	CGSB-147	
		TYPE and NO.	PEN/REC IN./IN.	PID (PPM)	VISUAL IMPACTS	ODOR					
	55										
	60	60/40									
	65	60/48									
	70	60/48									
	75	60/34									
	80	60/48									
End of Boring at 80 feet.											
NOTES:											
PEN = PENETRATION LENGTH OF SAMPLER OR CORE BARREL				ppm = PARTS PER MILLION			NLO = NAPHTHALENE LIKE ODOR	CrLO= CREOSOTE LIKE ODOR			
REC = RECOVERY LENGTH OF SAMPLE				IN. = INCHES			PLO = PETROLEUM LIKE ODOR	OLO = ORGANIC LIKE ODOR			
PID = PHOTOIONIZATION DETECTOR READING (PPM)				FT. = FEET			TLO = TAR LIKE ODOR	SLO = SULFUR LIKE ODOR			
JHS = JAR HEADSPACE PID READING (PPM)				CLO = CHEMICAL LIKE ODOR			ALO = ASPHALT LIKE ODOR	MLO = MUSTY LIKE ODOR			
NA = NOT APPLICABLE		Q _p = POCKET PENETROMETER									
NM = NOT MEASURED		S _v = TОРVANE PEAK									

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FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-2/DP-I

PROJECT NUMBER: 80030-0002

FIELD BOOK NO: 301

PROJECT NAME: 124-136 SECOND AVENUE

TOTAL DEPTH: 28 Feet

LOCATION: BROOKLYN, NEW YORK

GROUND SURFACE ELEVATION: 0.0

DRILLING CO: FENLEY & NICOL

DRILLING METHOD: HOLLOW STEM AUGER/GEOPROB

STATIC WATER LEVEL (BLS)

FIELD PARTY: CHRIS BOSS

GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 12/14/2000 DATE COMPLETED: 12/14/2000

Depth (ft)

5.3

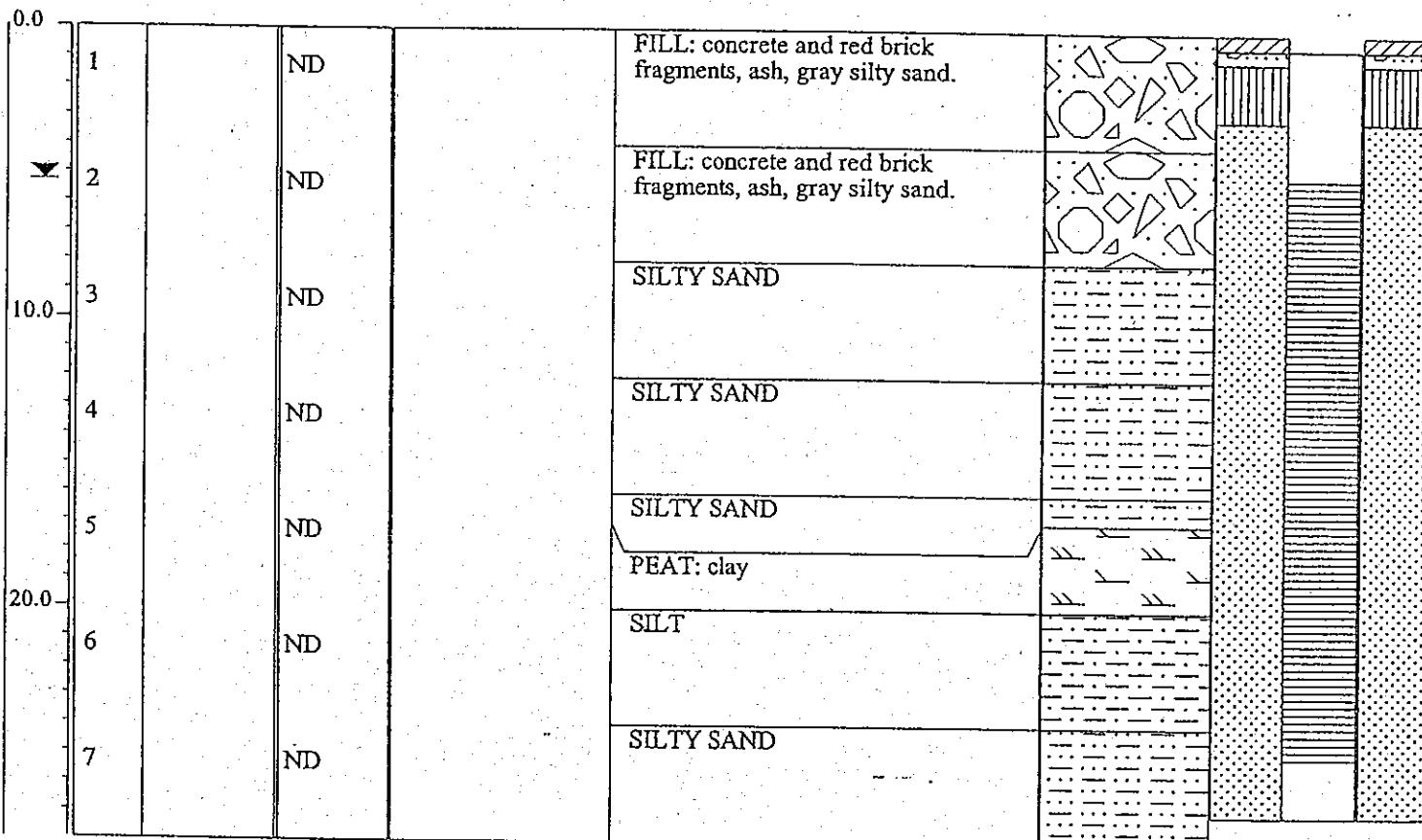
Time

12:35

Date

12/22/2000

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

DP-2

PROJECT NUMBER: 80030-0002

FIELD BOOK NO: 301

PROJECT NAME: 124-136 SECOND AVENUE

TOTAL DEPTH: 28 Feet

LOCATION: BROOKLYN, NEW YORK

GROUND SURFACE ELEVATION: 0.0

DRILLING CO: FENLEY & NICOL

DRILLING METHOD: GEOPROBE

FIELD PARTY: CHRIS BOSS/JAY SEALE

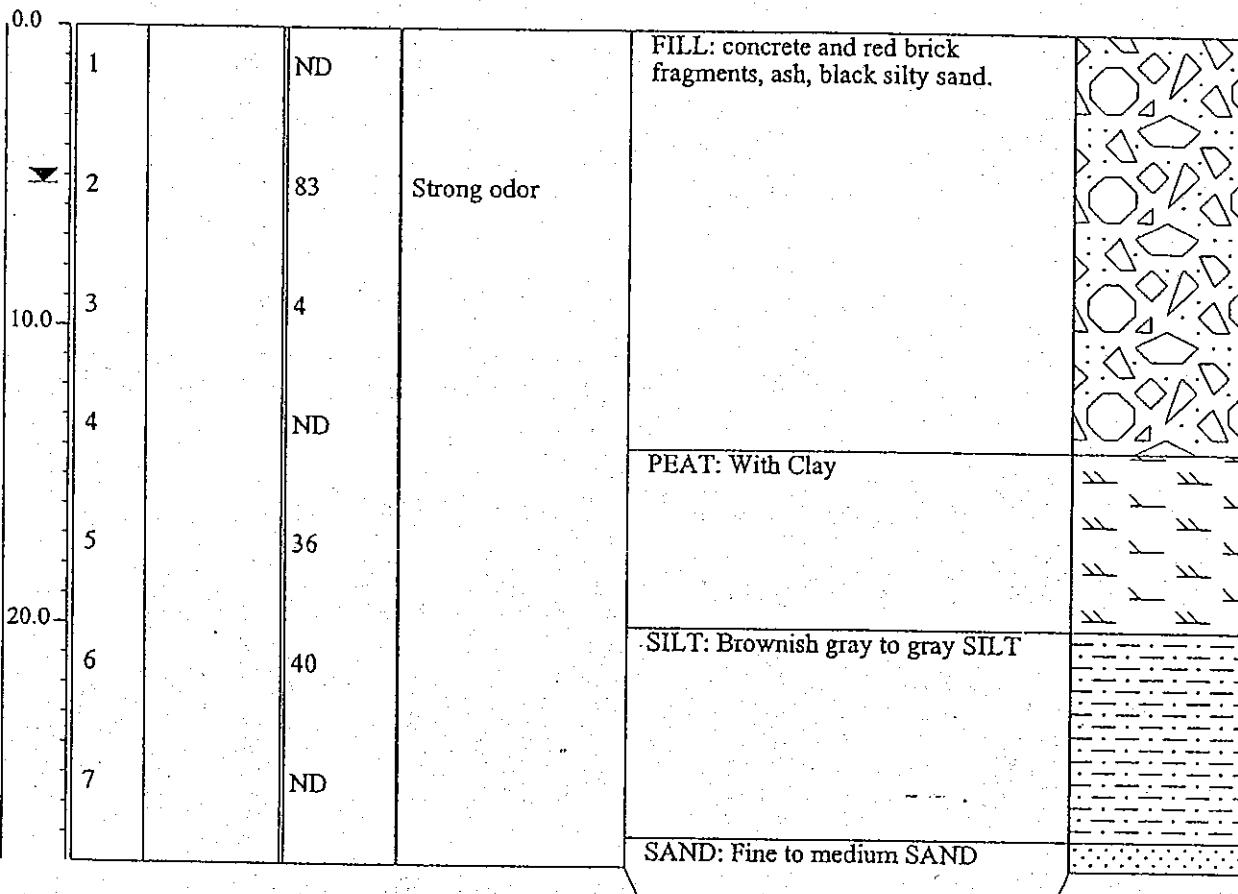
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 12/14/2000 DATE COMPLETED: 12/14/2000

STATIC WATER LEVEL (BLS)

Depth (ft)	5.0	
Time	10:10	
Date	12/14/2000	

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-3/DP-9

PROJECT NUMBER: 80030-0002
 PROJECT NAME: 124-136 SECOND AVENUE
 LOCATION: BROOKLYN, NEW YORK
 DRILLING CO: FENLEY & NICOL
 DRILLING METHOD: HOLLOW STEM AUGER/GEOPROBE
 FIELD PARTY: JAY SALE
 GEOLOGIST: MOHAMED AHMED
 DATE BEGUN: 12/12/2000 DATE COMPLETED: 12/12/2000

FIELD BOOK NO: 301

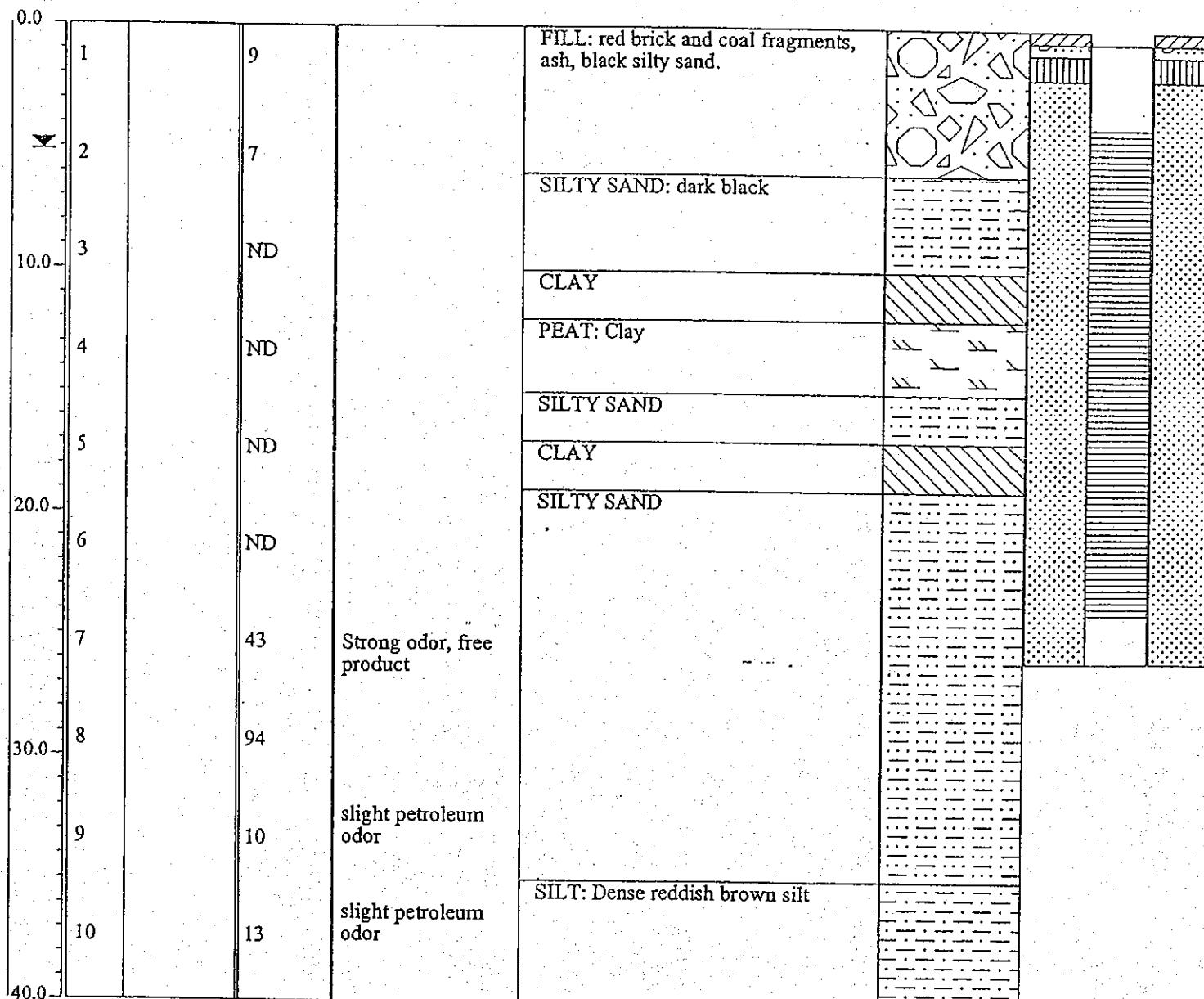
TOTAL DEPTH: 40 FEET

GROUND SURFACE ELEVATION: 0.0

STATIC WATER LEVEL (BLS)

Depth (ft)	5.15
Time	11:20
Date	12/23/2000

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION
0.0	1	9			FILL: red brick and coal fragments, ash, black silty sand.		
2		7			SILTY SAND: dark black		
3		ND			CLAY		
4		ND			PEAT: Clay		
5		ND			SILTY SAND		
10.0					CLAY		
20.0					SILTY SAND		
30.0							
40.0							



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FIELD BOREHOLE LOG

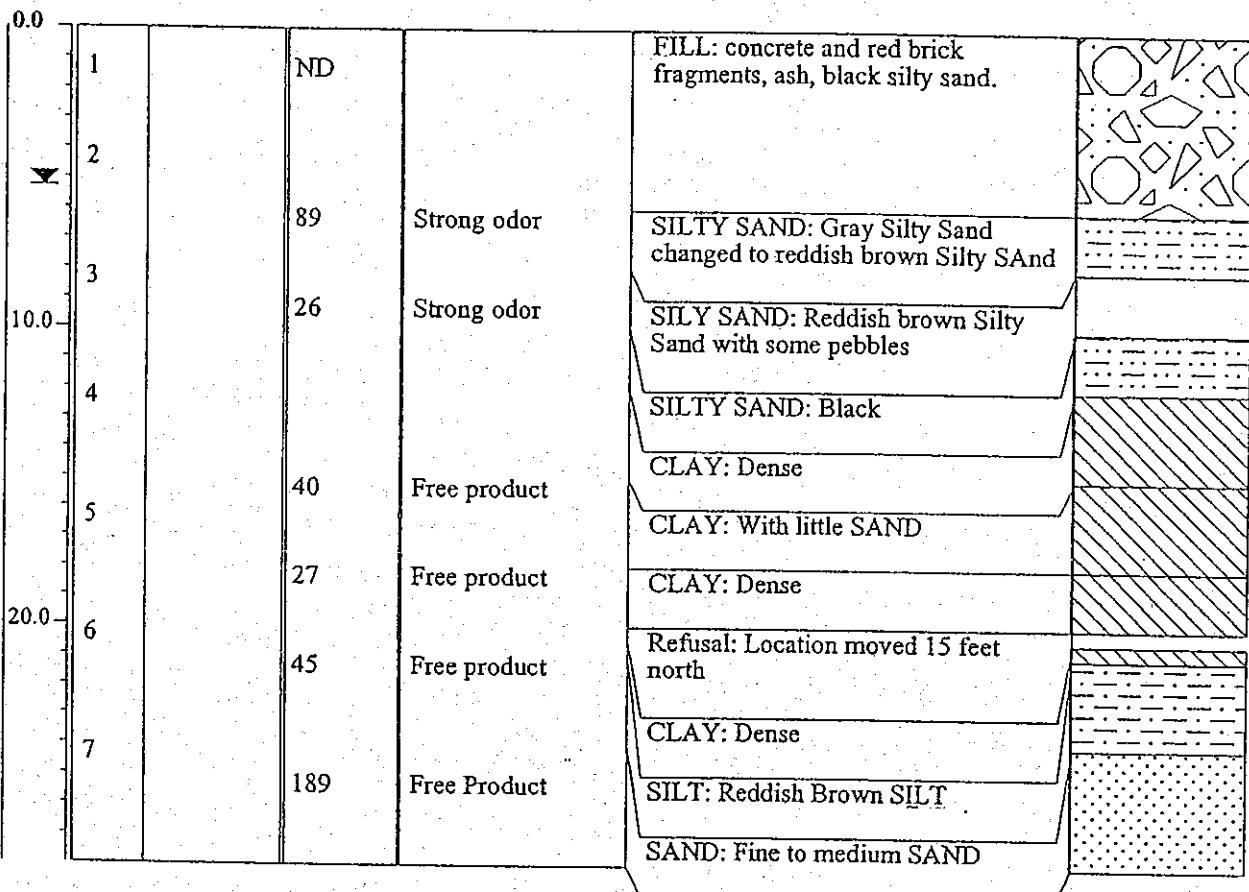
BOREHOLE NUMBER

DP-10

PROJECT NUMBER:	80030-0002	FIELD BOOK NO:	301
PROJECT NAME:	124-136 SECOND AVENUE	TOTAL DEPTH:	28 Feet
LOCATION:	BROOKLYN, NEW YORK	GROUND SURFACE ELEVATION:	0.0
DRILLING CO:	FENLEY & NICOL		
DRILLING METHOD:	GEOPROBE		
FIELD PARTY:	JAY SEALE		
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	12/13/2000	DATE COMPLETED:	12/13/2000

STATIC WATER LEVEL (BLS)		
Depth (ft)	5.0	
Time	10:10	
Date	12/13/2000	

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-5/DP-11

PROJECT NUMBER: 80030-0002
 PROJECT NAME: 124-136 SECOND AVENUE
 LOCATION: BROOKLYN, NEW YORK
 DRILLING CO: FENLEY & NICOL
 DRILLING METHOD: HOLLOW STEM AUGER/GEOPROBE
 FIELD PARTY: CHRIS MIGLIORE/JAY SEAL
 GEOLOGIST: MOHAMED AHMED
 DATE BEGUN: 12/08/2000 DATE COMPLETED: 12/08/2000

FIELD BOOK NO:

301

TOTAL DEPTH:

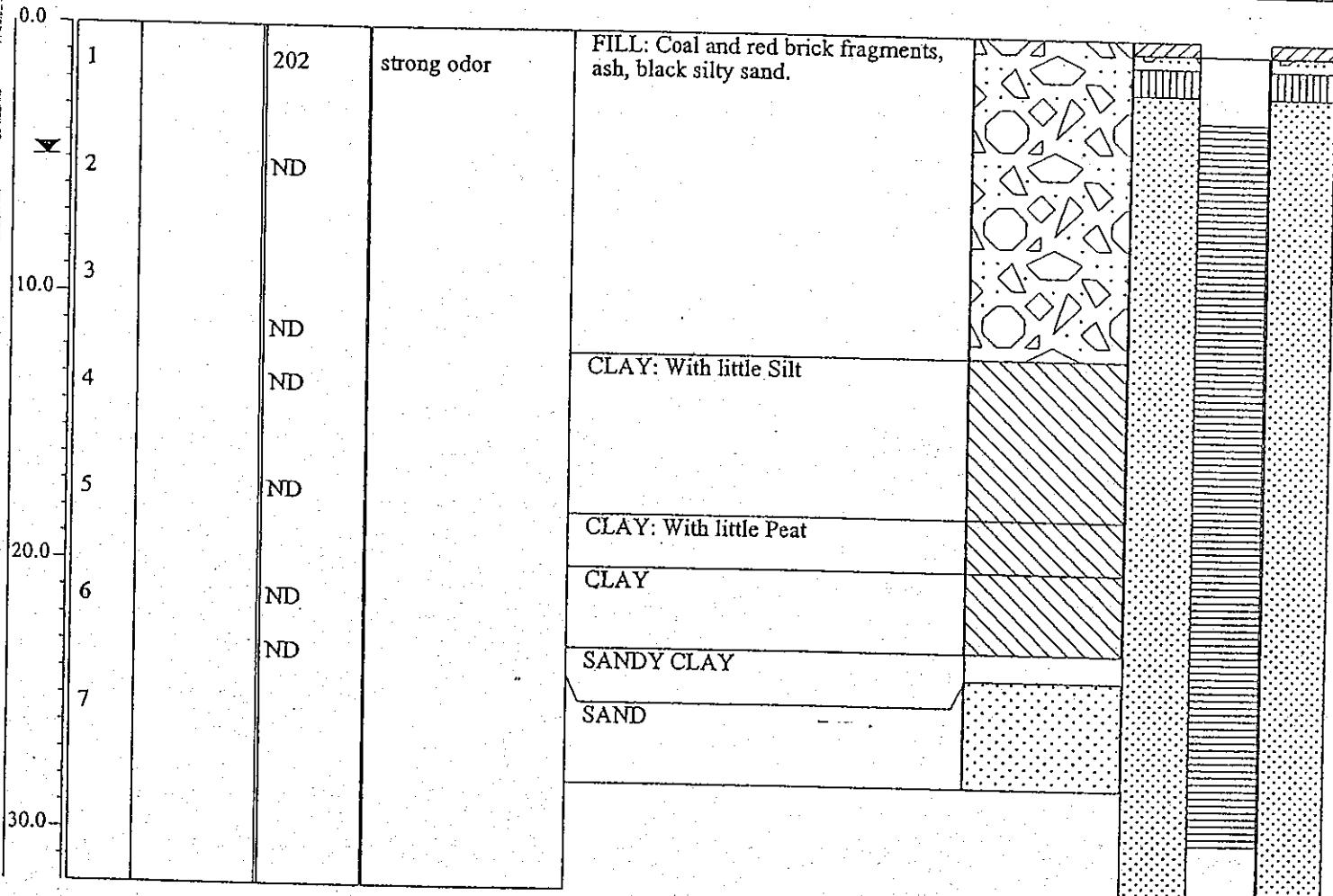
32 Feet

GROUND SURFACE ELEVATION: 0.0

STATIC WATER LEVEL (BLS)

Depth (ft)	5.3	
Time	2:45	
Date	12/22/2000	

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION
1		202		strong odor	FILL: Coal and red brick fragments, ash, black silty sand.		
2		ND					
3		ND					
4		ND			CLAY: With little Silt		
5		ND			CLAY: With little Peat		
6		ND			CLAY		
7		ND			SANDY CLAY		
					SAND		



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-6/DP-12

PROJECT NUMBER: 80030-0002
 PROJECT NAME: 124-136 SECOND AVENUE
 LOCATION: BROOKLYN, NEW YORK
 DRILLING CO: FENLEY & NICOL
 DRILLING METHOD: HOLLOW STEM AUGER/GEOPROBE
 FIELD PARTY: CHRIS MIGLIORE/JAY SEAL
 GEOLOGIST: MOHAMED AHMED
 DATE BEGUN: 12/6/2000 DATE COMPLETED: 12/6/2000

FIELD BOOK NO:

301

TOTAL DEPTH:

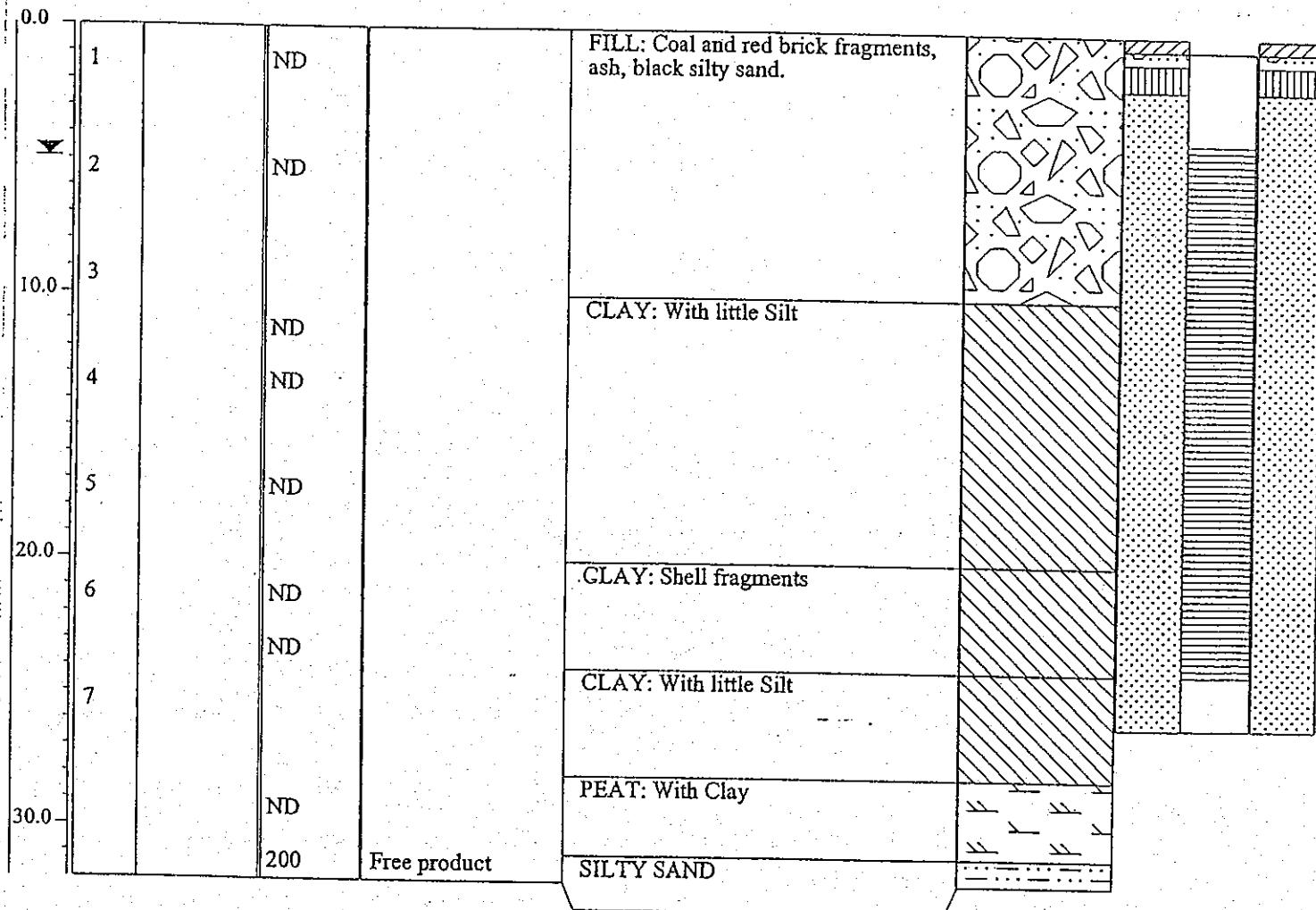
32 Feet

GROUND SURFACE ELEVATION: 0.0

STATIC WATER LEVEL (BLS)

Depth (ft)	4.95	
Time	10:30	
Date	12/23/2000	

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION
0.0	1	ND			FILL: Coal and red brick fragments, ash, black silty sand.		
2		ND					
3		ND					
4		ND					
5		ND					
10.0					CLAY: With little Silt		
20.0					CLAY: Shell fragments		
25.0					CLAY: With little Silt		
30.0		ND	200	Free product	PEAT: With Clay		
					SILTY SAND		



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

MW-7/DP-13

PROJECT NUMBER: 80030-0002
 PROJECT NAME: 124-136 SECOND AVENUE
 LOCATION: BROOKLYN, NEW YORK
 DRILLING CO: FENLEY & NICOL
 DRILLING METHOD: HOLLOW STEM AUGER/GEOPROBE
 FIELD PARTY: CHRIS MIGLIORE/JAY SEAL
 GEOLOGIST: MOHAMED AHMED
 DATE BEGUN: 12/06/2000 DATE COMPLETED: 12/06/2000

FIELD BOOK NO: 301

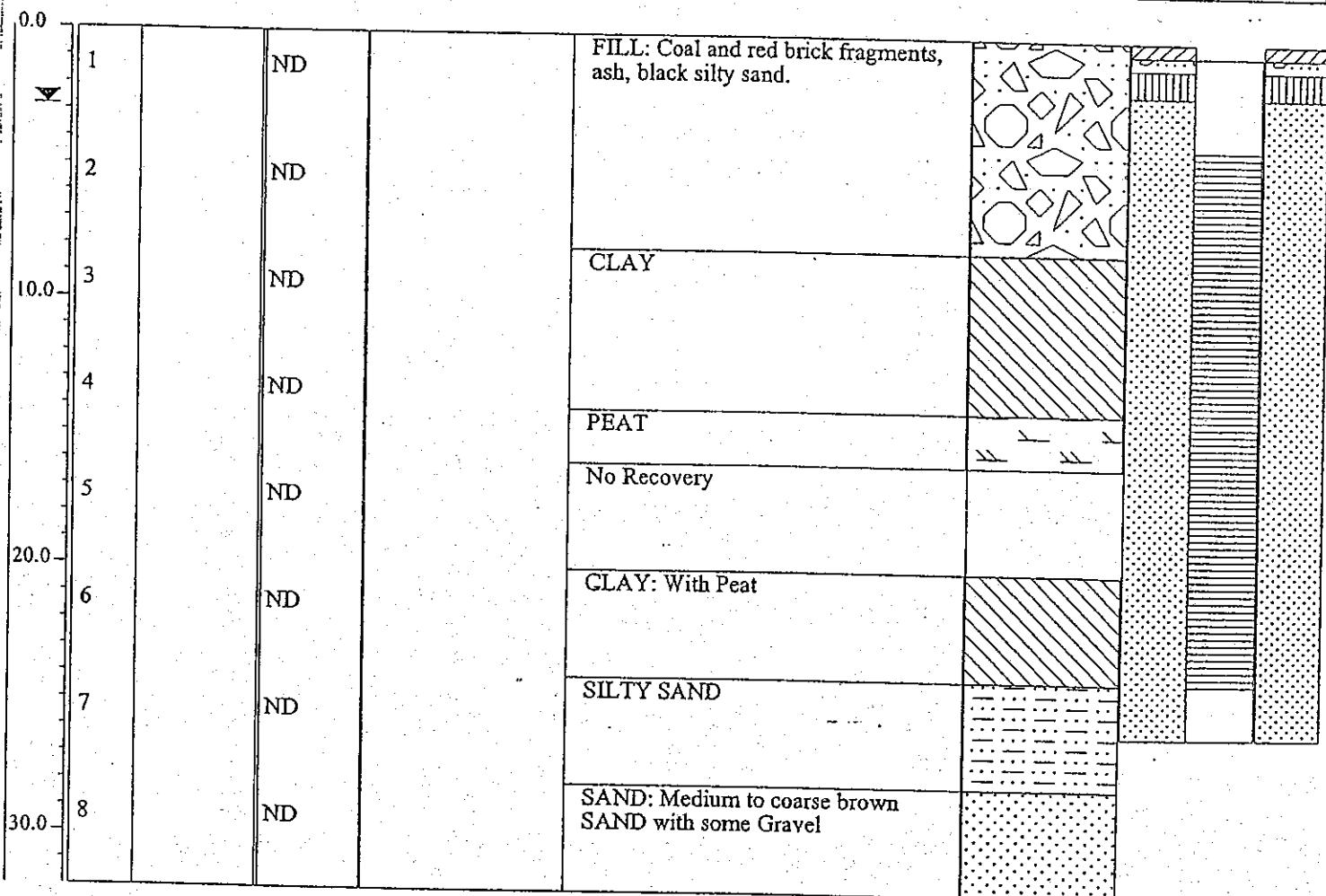
TOTAL DEPTH: 32 Feet

GROUND SURFACE ELEVATION: 0.0

STATIC WATER LEVEL (BLS)

Depth (ft)	2.8	
Time	1:15	
Date	12/22/2000	

DEPTH (ft)	SAMPLE NUMBER	BLOWS COUNT	PID/ppm	REMARKS	DESCRIPTION	LITHOLOGY	WELL INSTALLATION
1		ND			FILL: Coal and red brick fragments, ash, black silty sand.		
2		ND					
3		ND			CLAY		
4		ND			PEAT		
5		ND			No Recovery		
6		ND			CLAY: With Peat		
7		ND			SILTY SAND		
8		ND			SAND: Medium to coarse brown SAND with some Gravel		



Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

Logged By: J. Bolduc

GCMW-44S Northing (ft): 184458.534

Log of Well: GCMW-44

GCMW-44S Easting (ft): 985077.566

GCMW-44I Northing (ft): 184458.434

GCMW-441 Easting (ft): 985077.808

GCMW-44S Elevation (ft AMSL): 4,722

GCMW-441 Elevation (ft AMSL): 4,731

SUBSURFACE PROFILE			SAMPLE			Well Completion Details						
Depth	Symbol	Description	Elev. (ft.)	Number	Type	Recovery	PID Readings ppmv					
0 ft m 0		Ground Surface	0.00				0	20	40	60	80	100
1		Asphalt 1/4-foot thick.					1	1	1	1	1	1
2		Gravel With Sand (SW-GW) Fill					2	2	2	2	2	2
3		Dark grayish brown to dark gray, fine to coarse angular gravel, some fine to coarse-grained sand, little silt, copper nails, wood, glass, clay pot fragments, spotty petroleum hydrocarbon sheens, no odor.					3	3	3	3	3	3
4							4	4	4	4	4	4
5							5	5	5	5	5	5
6							6	6	6	6	6	6
7							7	7	7	7	7	7
8							8	8	8	8	8	8
9							9	9	9	9	9	9
10							10	10	10	10	10	10
11							11	11	11	11	11	11
12							12	12	12	12	12	12
13		Silty Clay (CL)	-12.50				13	0.0	0.0	0.0	0.0	0.0
14		Dark gray, low plasticity, soft, plant remains and shell fragments throughout, micaceous, wet, no stain, no odor.					14	0.0	0.0	0.0	0.0	0.0
15							15	0.0	0.0	0.0	0.0	0.0
16							16	0.0	0.0	0.0	0.0	0.0
17							17	0.0	0.0	0.0	0.0	0.0
18							18	0.0	0.0	0.0	0.0	0.0
19							19	0.0	0.0	0.0	0.0	0.0
20							20	0.0	0.0	0.0	0.0	0.0
21							21	0.0	0.0	0.0	0.0	0.0
22							22	0.0	0.0	0.0	0.0	0.0
23							23	0.0	0.0	0.0	0.0	0.0
24							24	0.0	0.0	0.0	0.0	0.0
25							25	0.0	0.0	0.0	0.0	0.0

Drill Method: A300 Rotary Sonic

Start Date: 1300 6/8/10

Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear

End Date: 1630 6/8/10

Sheet: 1 of 2

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

Logged By: J. Bolduc

GCMW-44S Northing (ft): 184458.534

Log of Well: GCMW-44

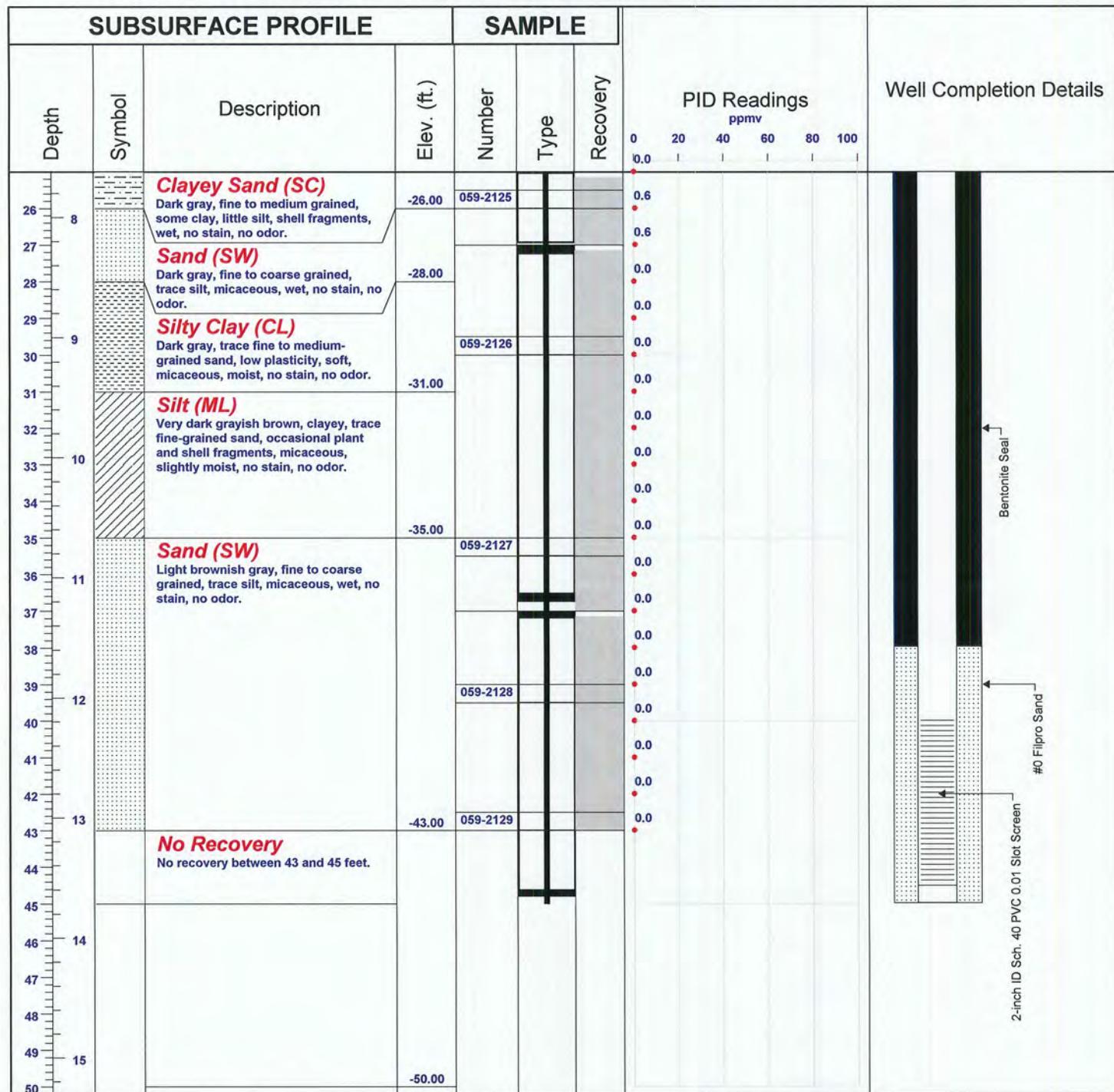
GCMW-44S Easting (ft): 985077.566

GCMW-44I Northing (ft): 184458.434

GCMW-44I Easting (ft): 985077.808

GCMW-44S Elevation (ft AMSL): 4.72

GCMW-44I Elevation (ft AMSL): 4.73



Drill Method: A300 Rotary Sonic

Drill Company: Boart Longyear

Start Date: 1300 6/8/10

End Date: 1630 6/8/10

Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Sheet: 2 of 2

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: Lowes, Brooklyn, NY

Logged By: J. Bolduc

GCMW-45S Northing (ft): 184648.833

GCMW-45S Easting (ft): 985200.254

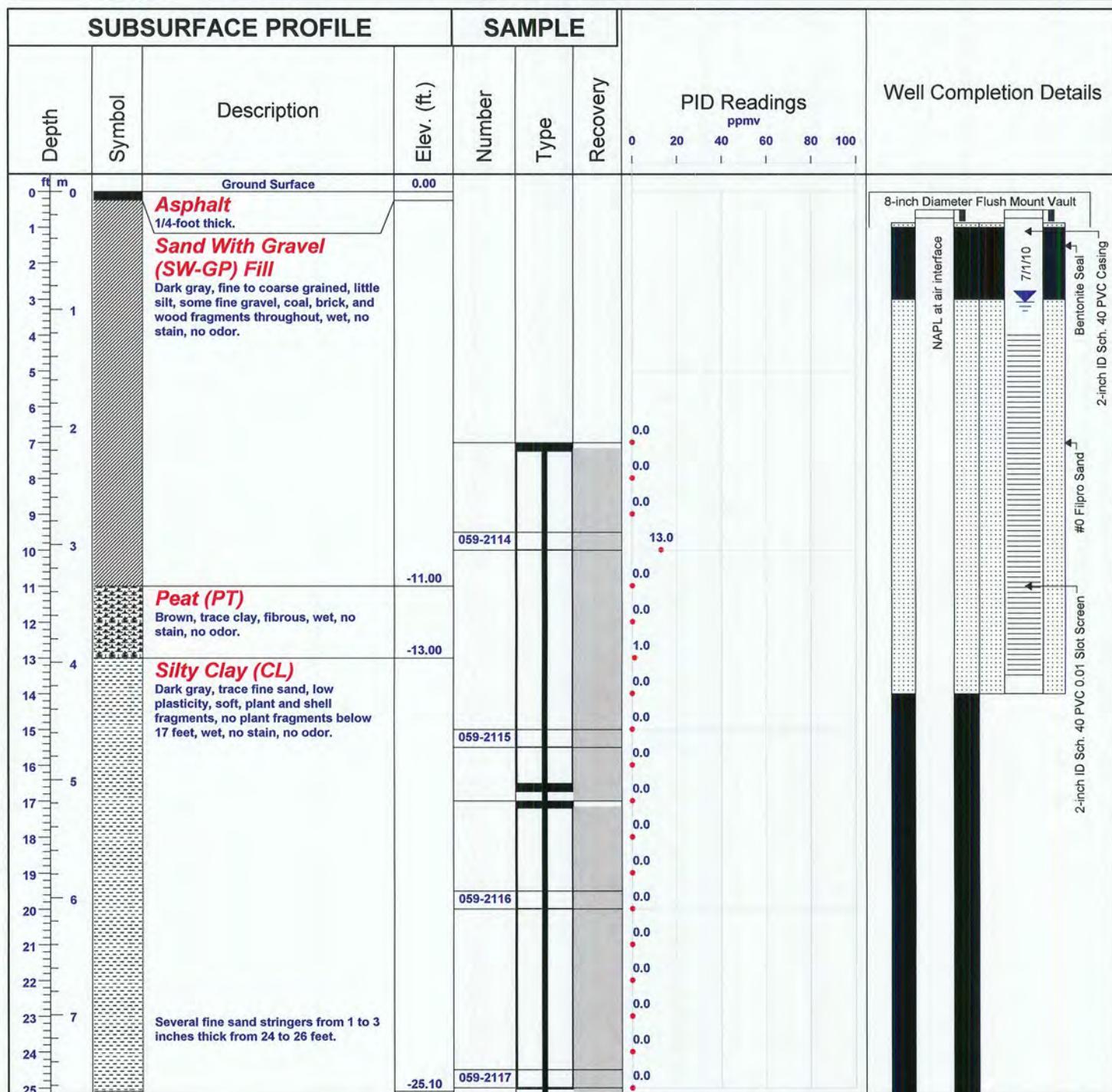
GCMW-45I Northing (ft): 184648.804

GCMW-45I Easting (ft): 985199.988

GCMW-45S Elevation (ft AMSL): 4.49

GCMW-45I Elevation (ft AMSL): 4.50

Log of Well: GCMW-45



Drill Method: A300 Rotary Sonic

Start Date: 0813 6/8/10

Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear

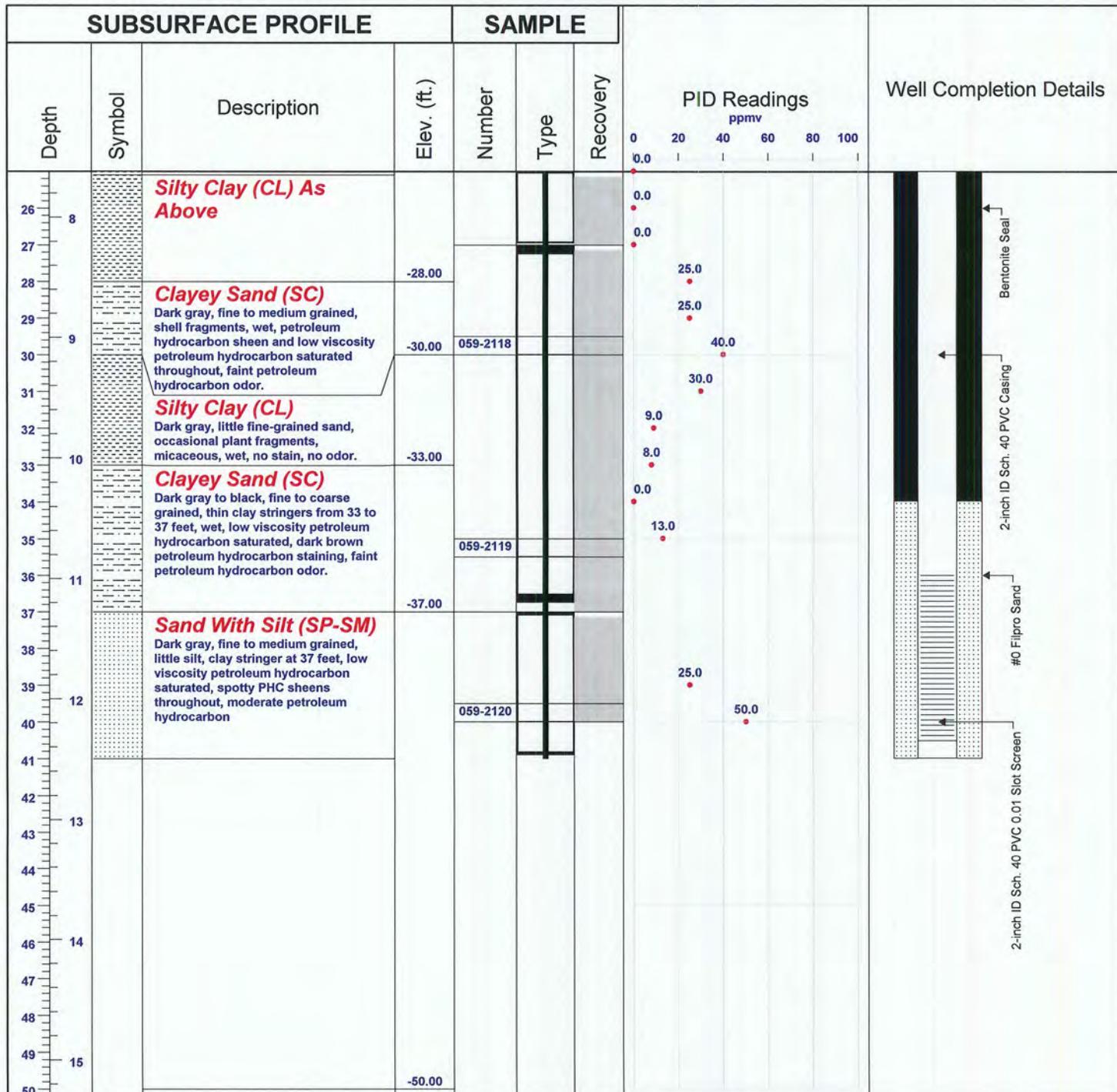
End Date: 1025 6/8/10

Sheet: 1 of 2

Project No: SERAS-059
Project: Gowanus Canal Superfund Site
Client: EPA/ERT
Location: Lowes, Brooklyn, NY
Logged By: J. Bolduc

GCMW-45S Northing (ft): 184648.833
GCMW-45S Easting (ft): 985200.254
GCMW-45I Northing (ft): 184648.804
GCMW-45I Easting (ft): 985199.988
GCMW-45S Elevation (ft AMSL): 4.49
GCMW-45I Elevation (ft AMSL): 4.50

Log of Well: GCMW-45



Drill Method: A300 Rotary Sonic

Start Date: 0813 6/8/10

Hole Size: 8 inches

Drill Company: Boart Longyear

End Date: 1025 6/8/10

Sheet: 2 of 2

Lockheed Martin/SERAS
 2890 Woodbridge Avenue
 Building 209 Annex
 Edison, NJ 08837

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

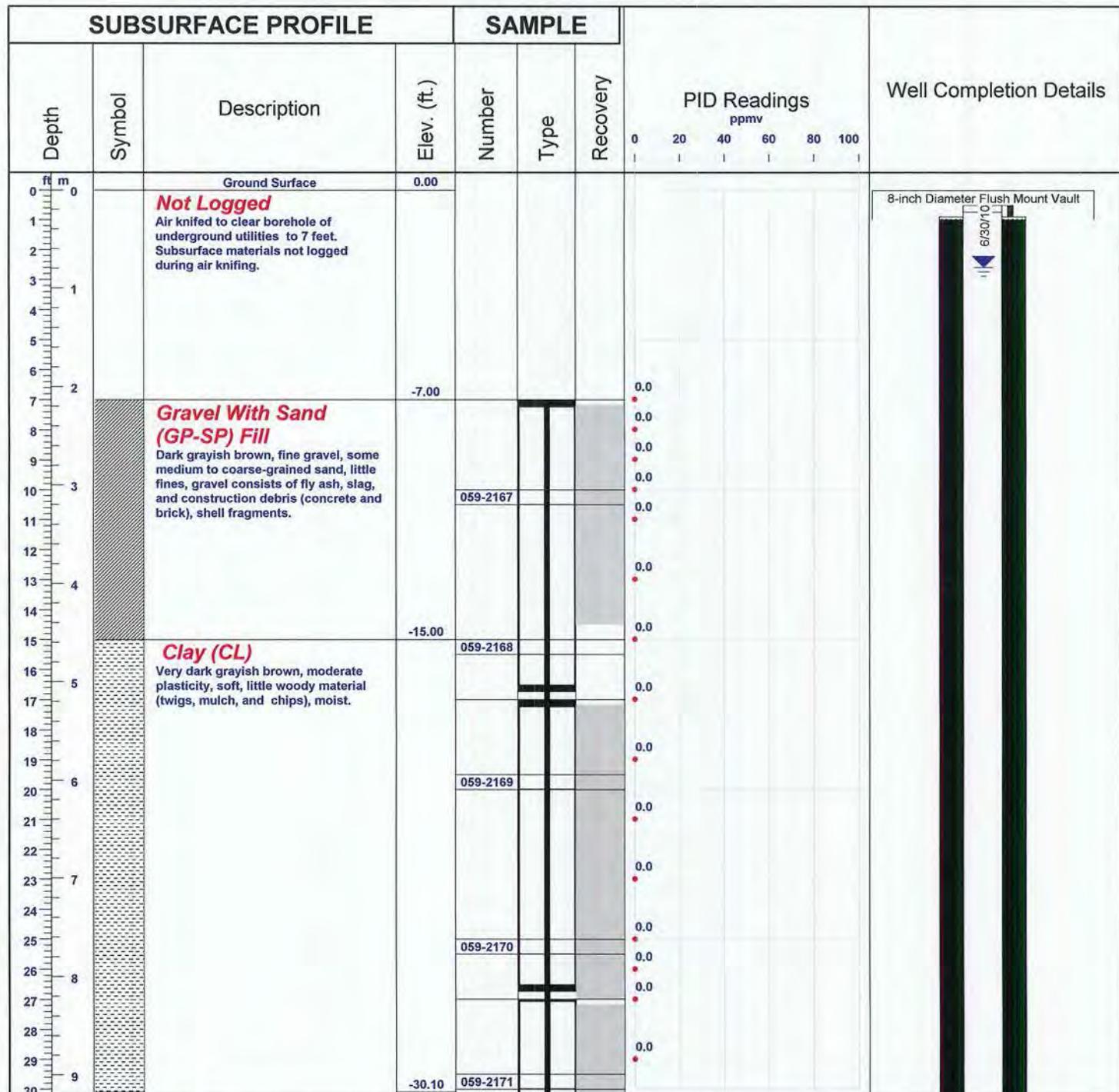
Logged By: C. Sklaney

GCMW-46I Northing (ft): 184593.888

GCMW-46I Easting (ft): 985167.173

GCMW-46I Elevation (ft AMSL): 4.76

Log of Well: GCMW-46



Drill Method: A300 Rotary Sonic

Start Date: 1415 6/15/10

Hole Size: 8 inches

Drill Company: Boart Longyear

End Date: 1620 6/15/10

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Sheet: 1 of 2

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

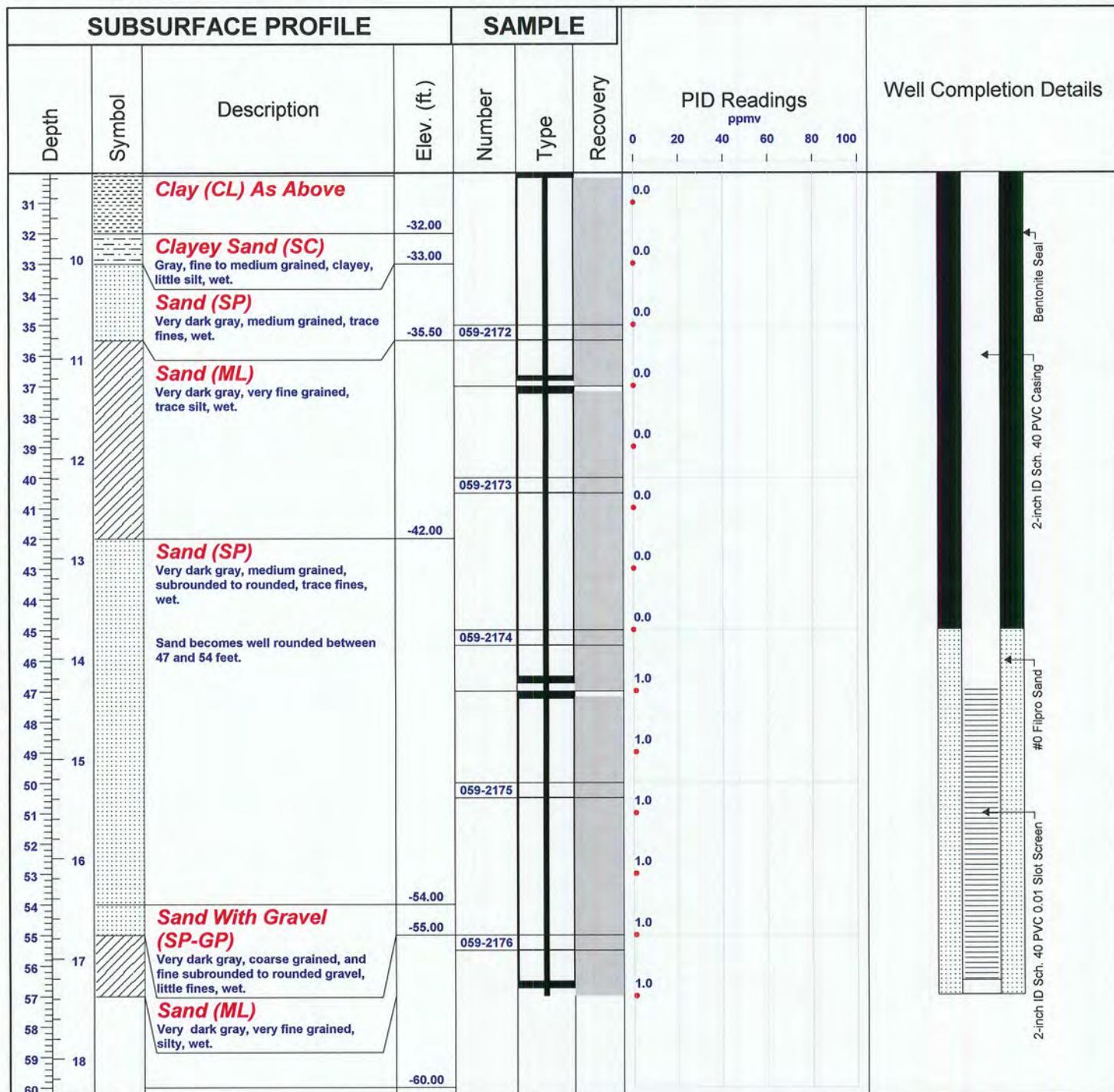
Logged By: C. Sklaney

GCMW-46I Northing (ft): 184593.888

GCMW-46I Easting (ft): 985167.173

GCMW-46I Elevation (ft AMSL): 4.76

Log of Well: GCMW-46



Drill Method: A300 Rotary Sonic

Start Date: 1415 6/15/10

Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear

End Date: 1620 6/15/10

Sheet: 2 of 2

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

Logged By: C. Sklaney

GCMW-47S Northing (ft): 184690.704

GCMW-47S Easting (ft): 985209.243

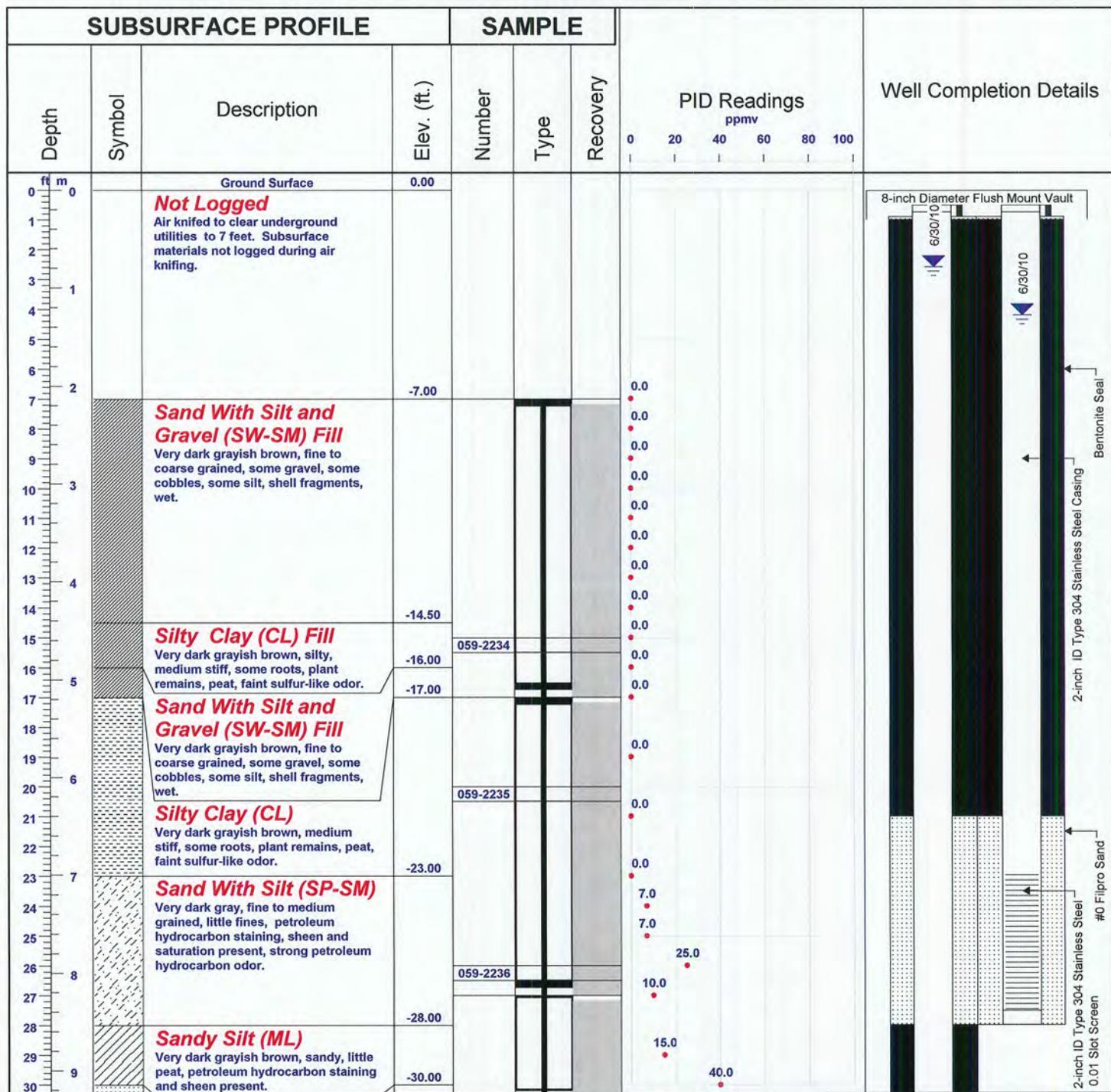
GCMW-47I Northing (ft): 184690.893

GCMW-47I Easting (ft): 985209.050

GCMW-47S Elevation (ft AMSL): 4.53

GCMW-47I Elevation (ft AMSL): 4.62

Log of Well: GCMW-47



Drill Method: A300 Rotary Sonic

Start Date: 0935 6/28/10

Hole Size: 8 inches

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

Drill Company: Boart Longyear

End Date: 1430 6/28/10

Sheet: 1 of 2

Project No: SERAS-059

Project: Gowanus Canal Superfund Site

Client: EPA/ERT

Location: 118 2nd Ave., Brooklyn, NY

Logged By: C. Sklaney

GCMW-47S Northing (ft): 184690.704

GCMW-47S Easting (ft): 985209.243

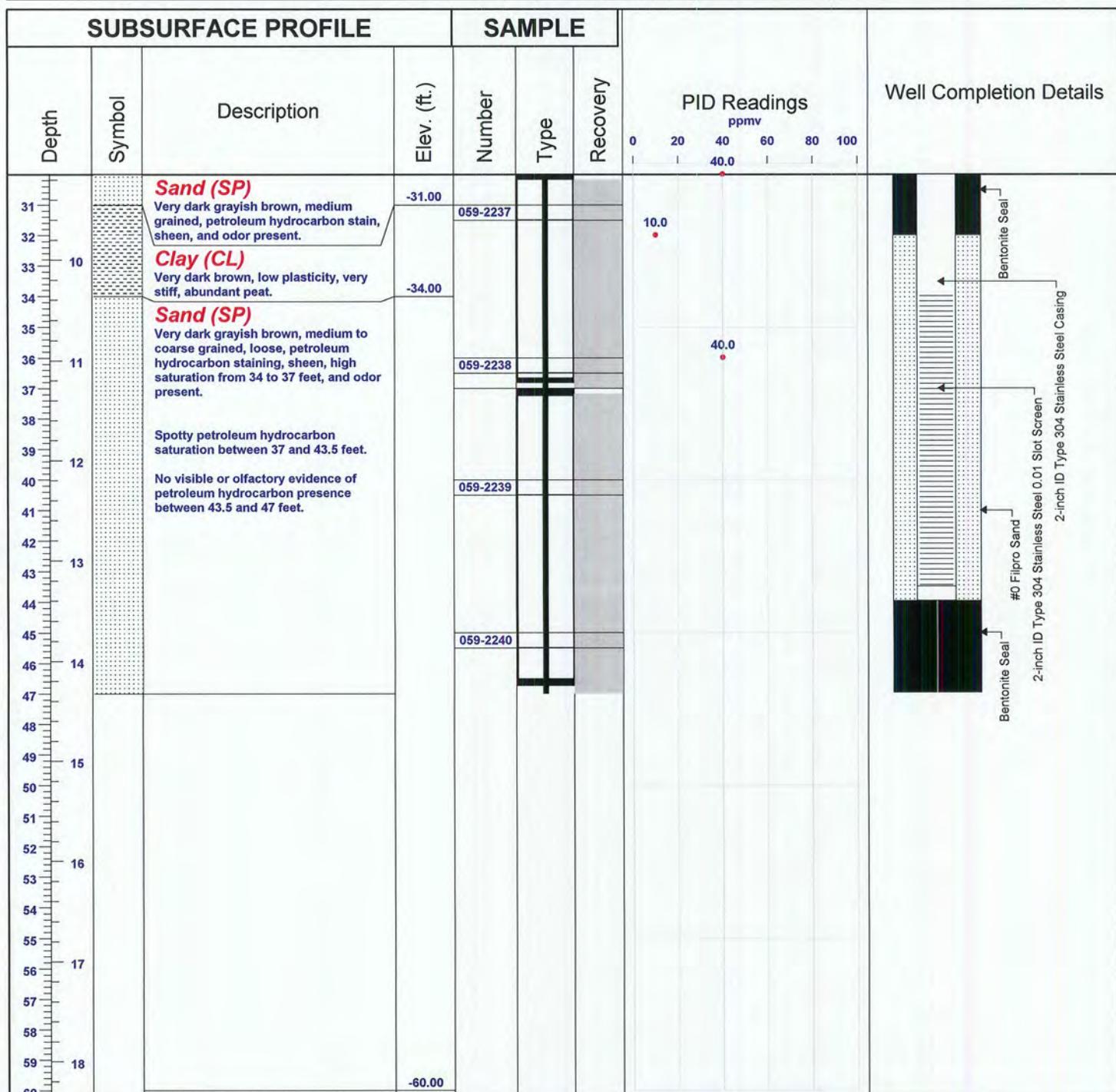
GCMW-47I Northing (ft): 184690.893

GCMW-47I Easting (ft): 985209.050

GCMW-47S Elevation (ft AMSL): 4.53

GCMW-47I Elevation (ft AMSL): 4.62

Log of Well: GCMW-47



Drill Method: A300 Rotary Sonic

Start Date: 0935 6/28/10

Hole Size: 8 inches

Drill Company: Boart Longyear

Lockheed Martin/SERAS
2890 Woodbridge Avenue
Building 209 Annex
Edison, NJ 08837

End Date: 1430 6/28/10

Sheet: 2 of 2

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FIELD BOREHOLE LOG

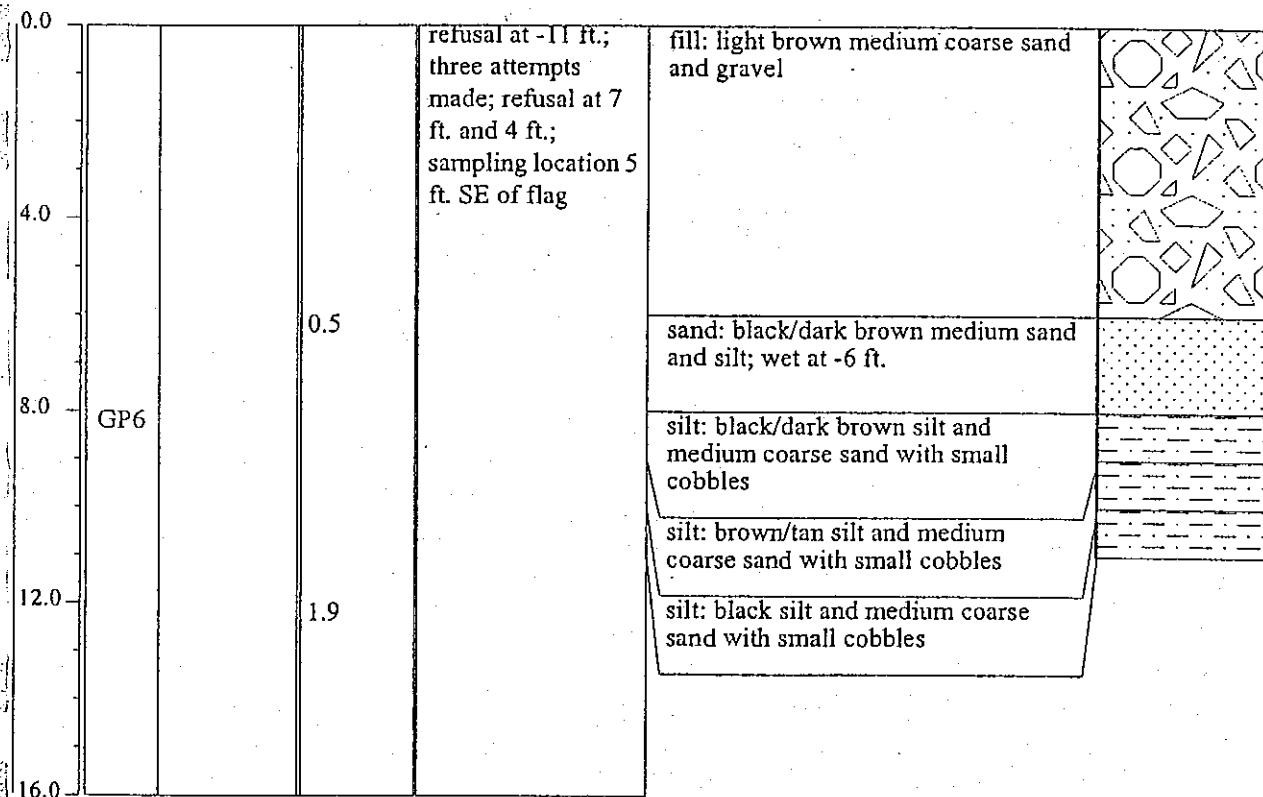
BOREHOLE NUMBER

GP-6

PROJECT NUMBER:	80030-0003	START TIME	0850
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	0925
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/21/01	DATE COMPLETED:	02/21/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

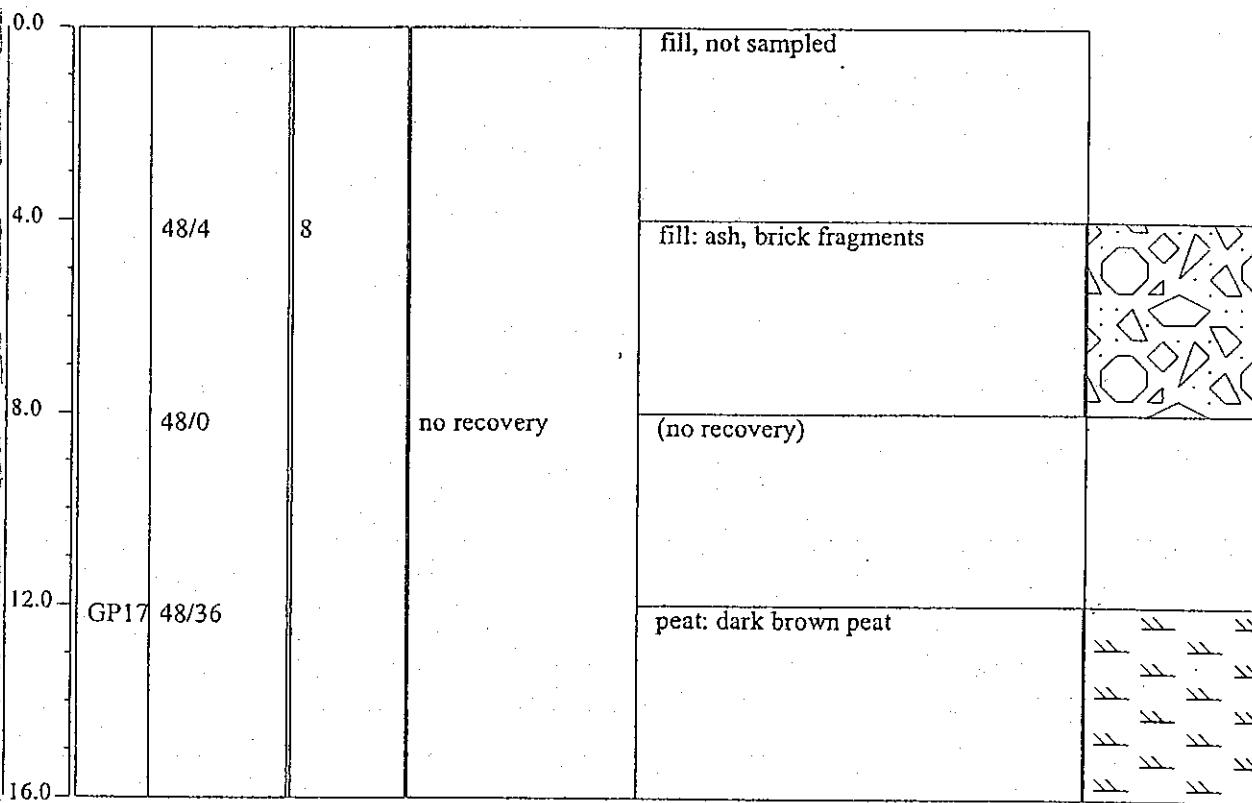
BOREHOLE NUMBER

GP-17

PROJECT NUMBER:	80030-0003	START TIME	1045
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1130
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/22/01	DATE COMPLETED:	

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

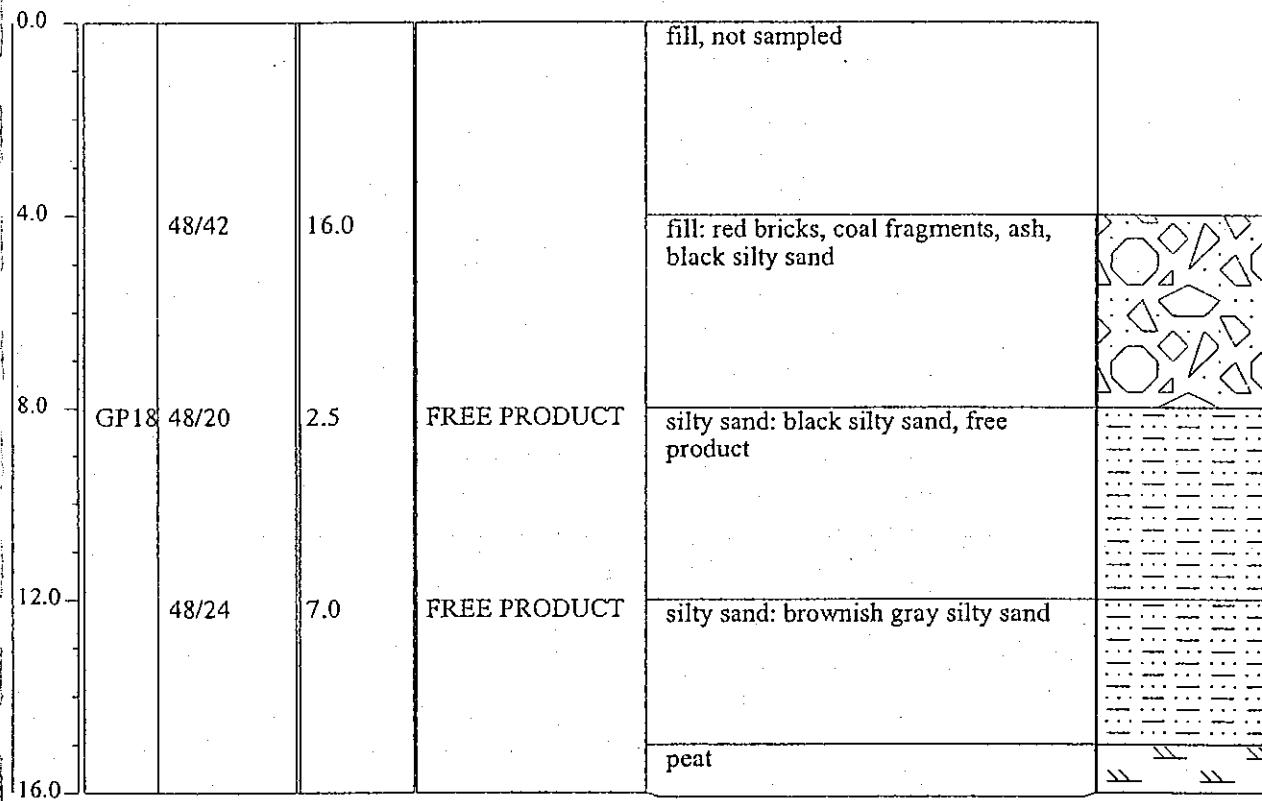
BOREHOLE NUMBER

GP-18

PROJECT NUMBER:	80030-0003	START TIME	1135
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1215
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/22/01	DATE COMPLETED:	02/22/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



AKRF, INC.

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FIELD BOREHOLE LOG

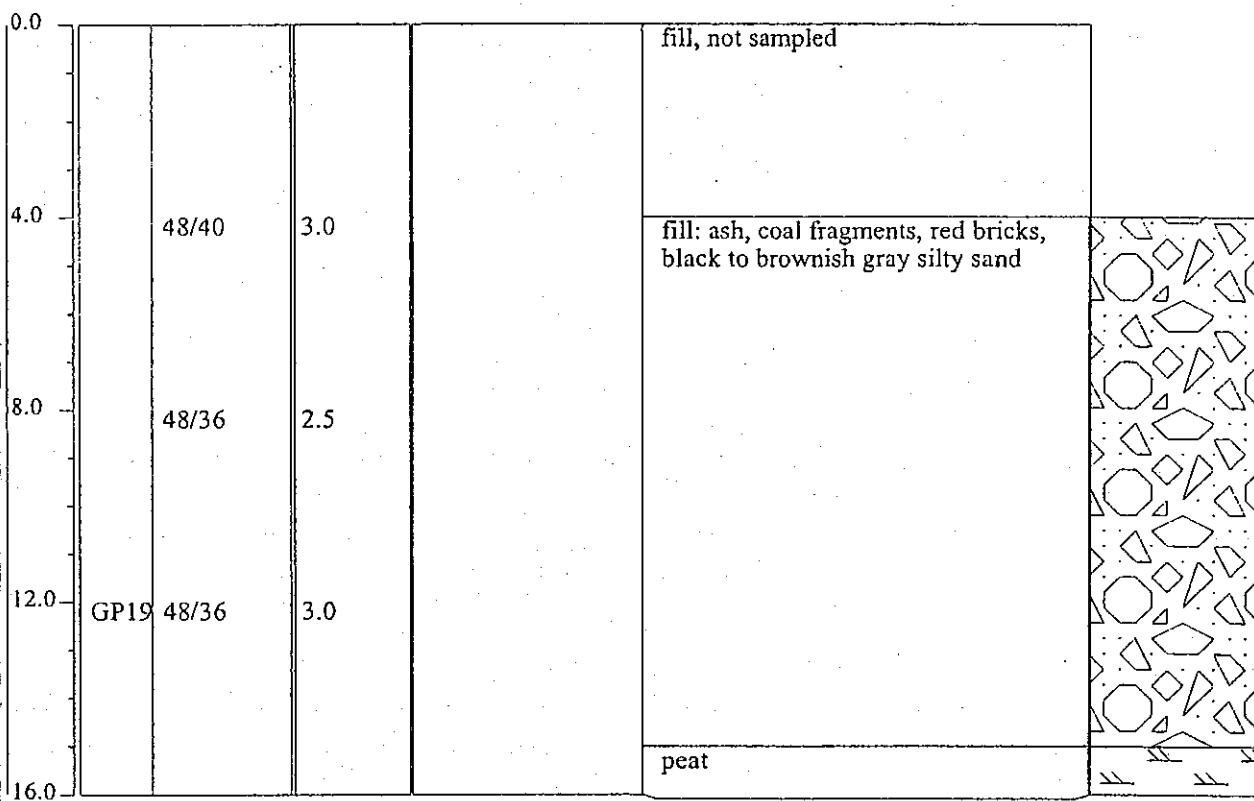
BOREHOLE NUMBER

GP-19

PROJECT NUMBER:	80030-0003	START TIME	1330
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1415
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/22/01	DATE COMPLETED:	02/22/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



AKRF, INC.

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FIELD BOREHOLE LOG

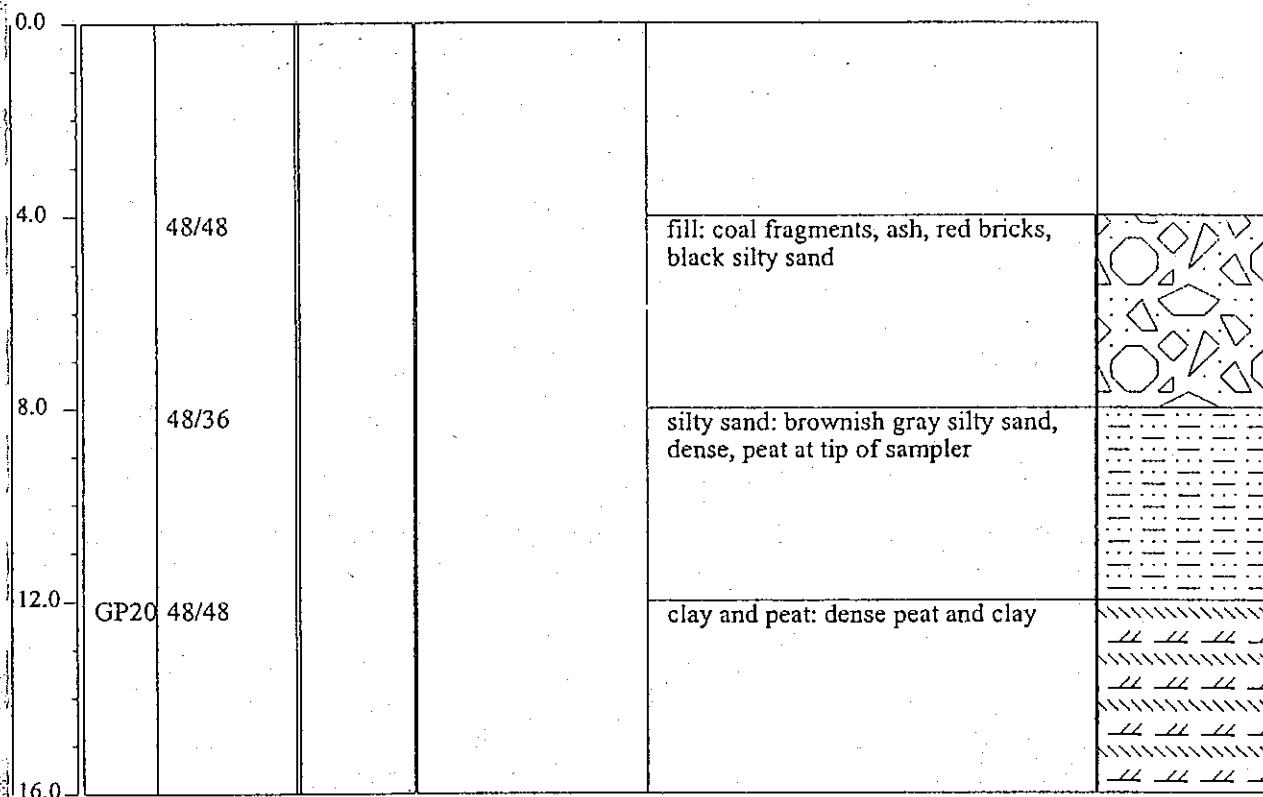
BOREHOLE NUMBER

GP-20

PROJECT NUMBER:	80030-0003	START TIME	1420
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1515
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/22/01	DATE COMPLETED:	02/22/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (m)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



AKRF, INC.

Environmental Consultants

FIELD BOREHOLE LOG

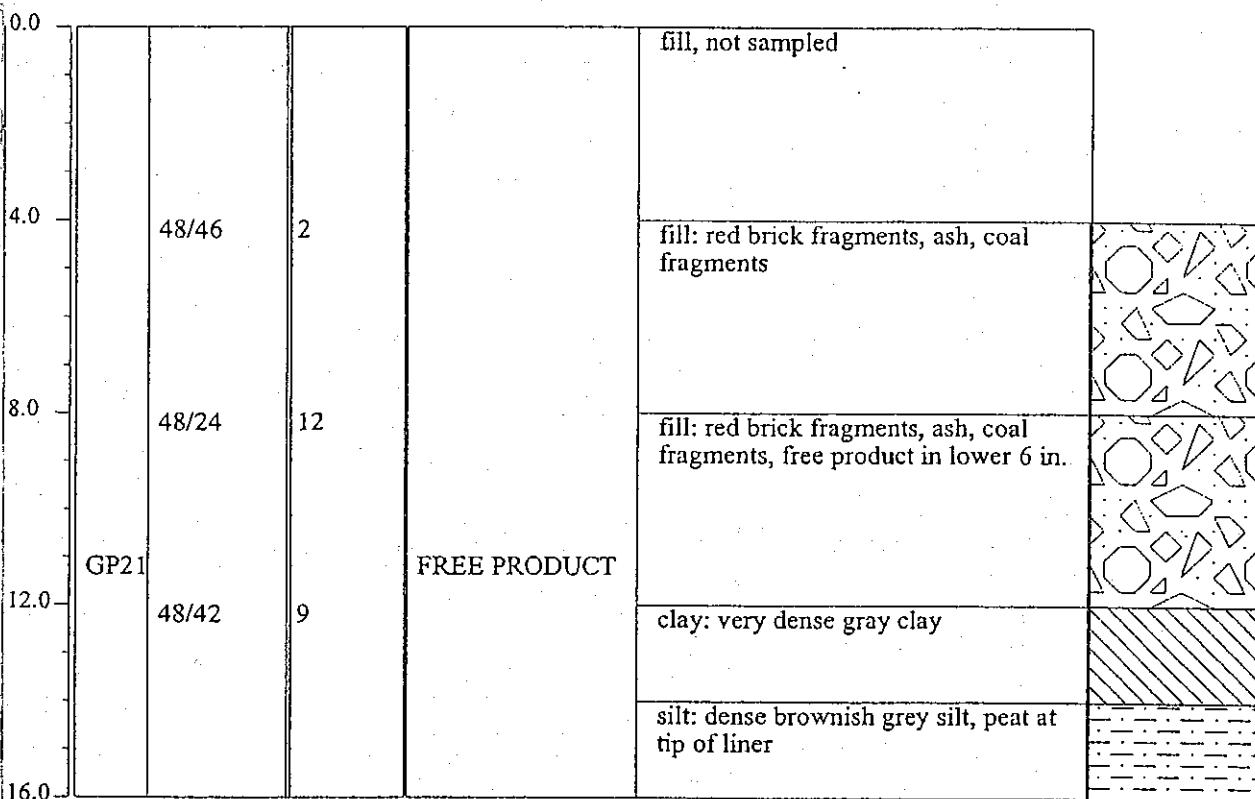
BOREHOLE NUMBER

GP-21

PROJECT NUMBER:	80030-0003	START TIME	0815
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	0830
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/27/01	DATE COMPLETED:	02/27/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

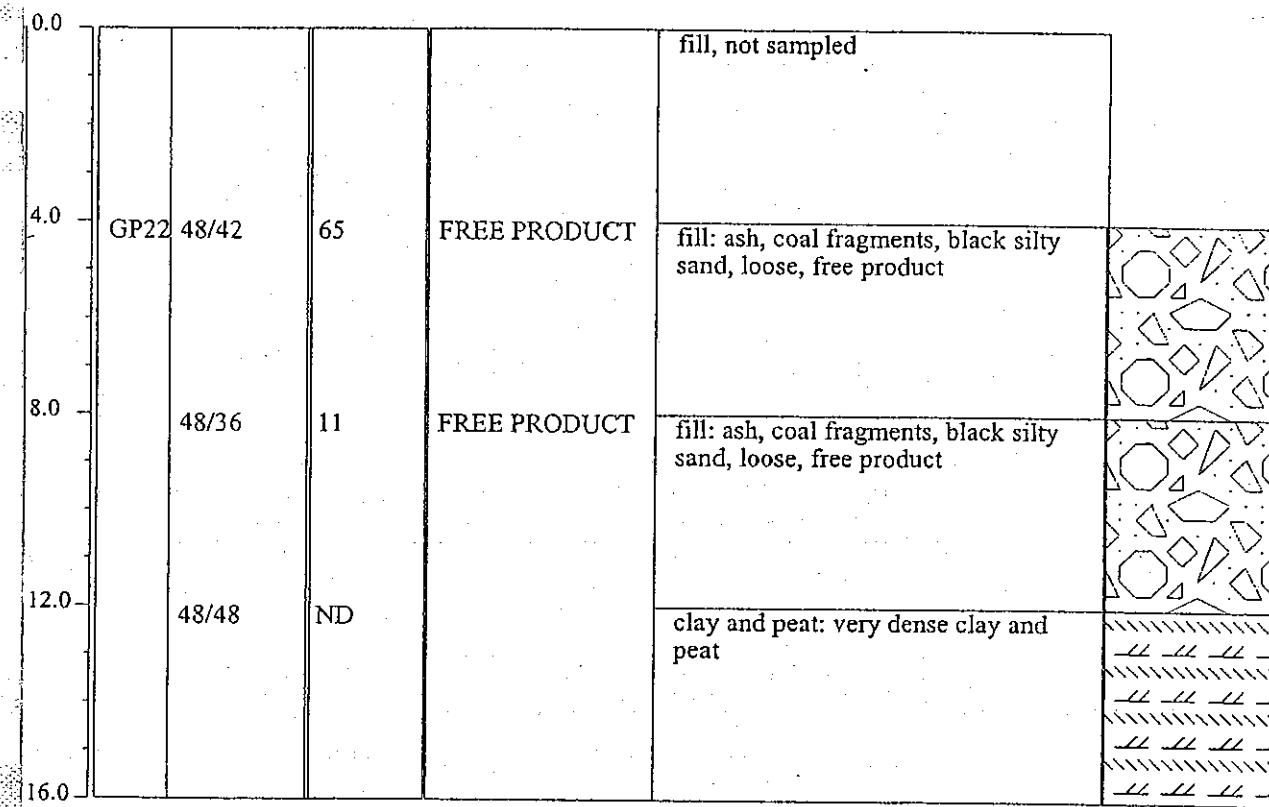
BOREHOLE NUMBER

GP-22

PROJECT NUMBER:	80030-0003	START TIME	0835
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	0850
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/27/01	DATE COMPLETED:	02/27/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

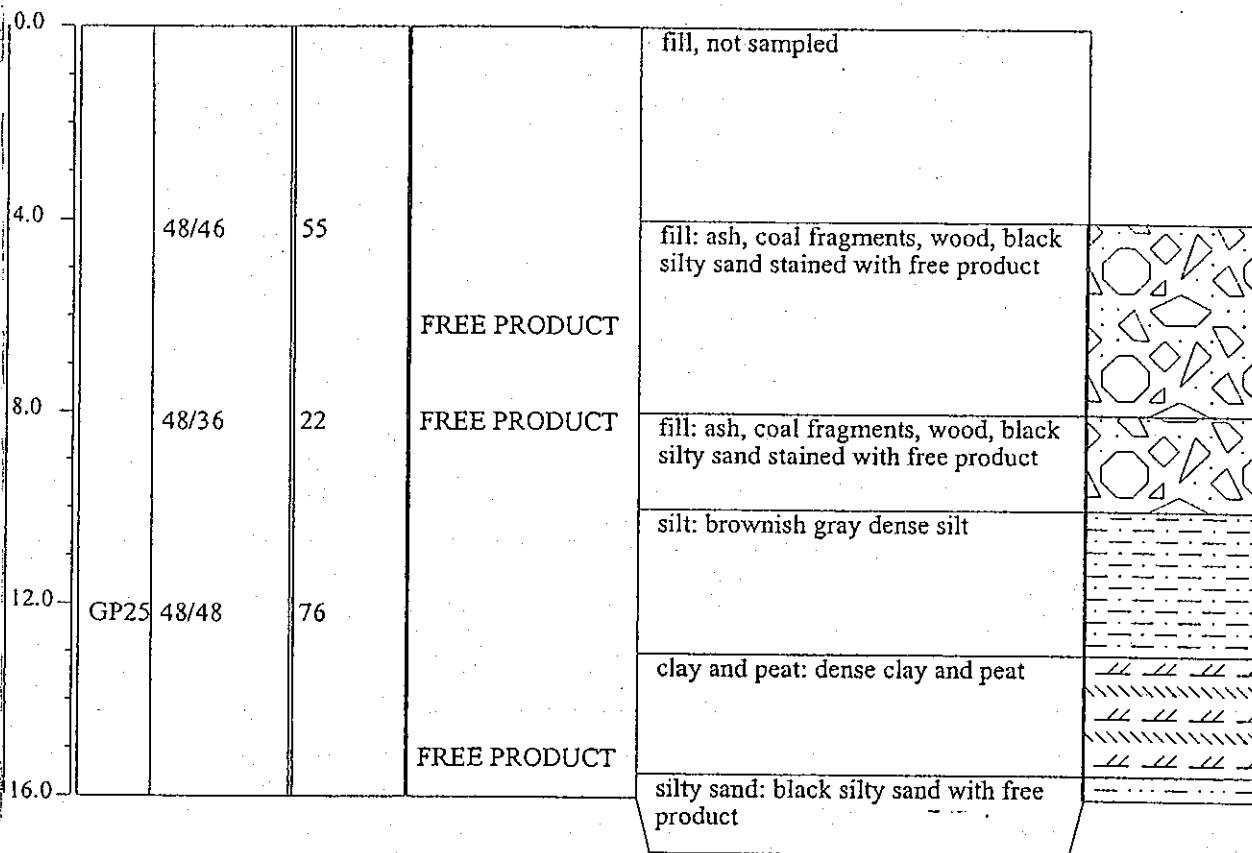
BOREHOLE NUMBER

GP-25

PROJECT NUMBER:	80030-0003	START TIME	1000
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1045
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/27/01	DATE COMPLETED:	02/27/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

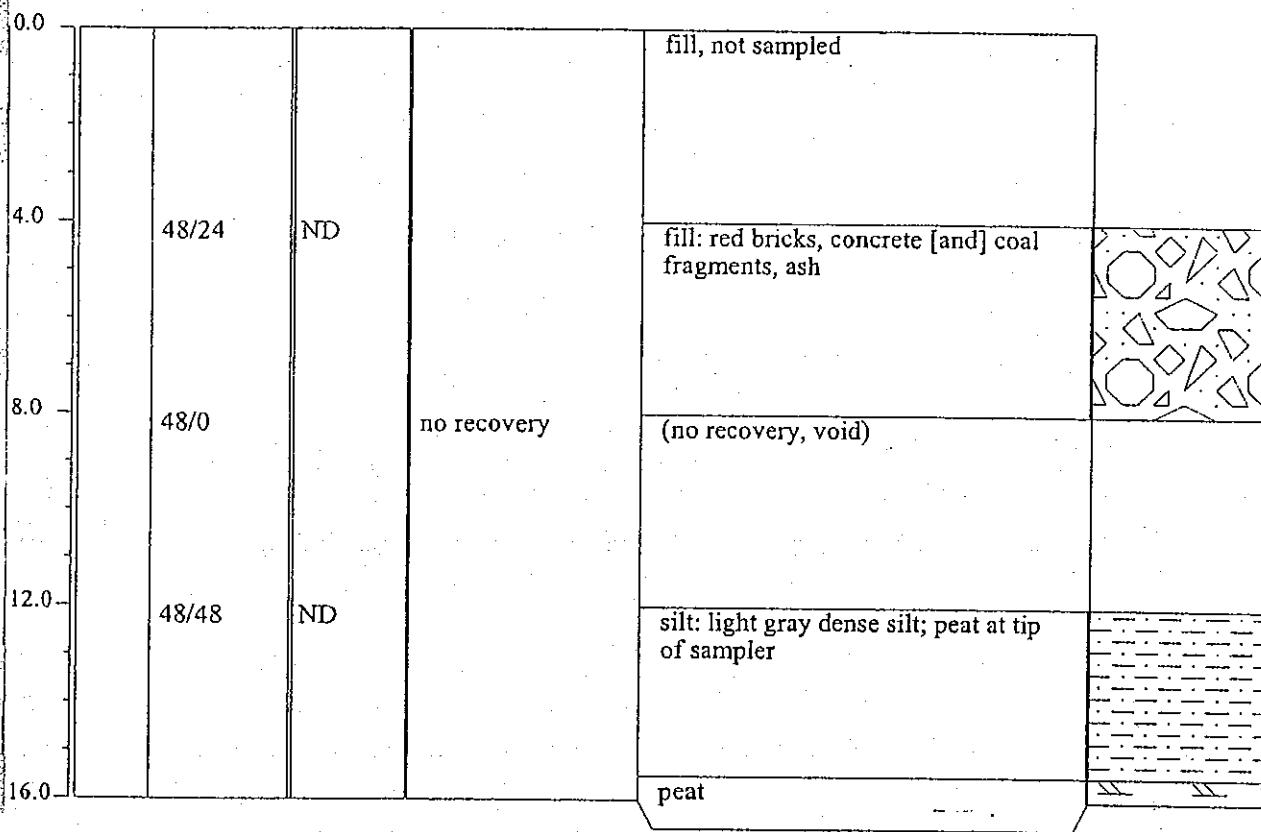
BOREHOLE NUMBER

GP-27

PROJECT NUMBER: 80030-0003 START TIME 1130
 PROJECT NAME: 124-136 Second Ave. (Gowanus) END TIME 1215
 LOCATION: Brooklyn, NY GROUND SURFACE ELEVATION: 0
 DRILLING CO:
 DRILLING METHOD: GeoProbe
 FIELD PARTY:
 GEOLOGIST: MOHAMED AHMED
 DATE BEGUN: 02/27/01 DATE COMPLETED: 02/27/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PtD(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

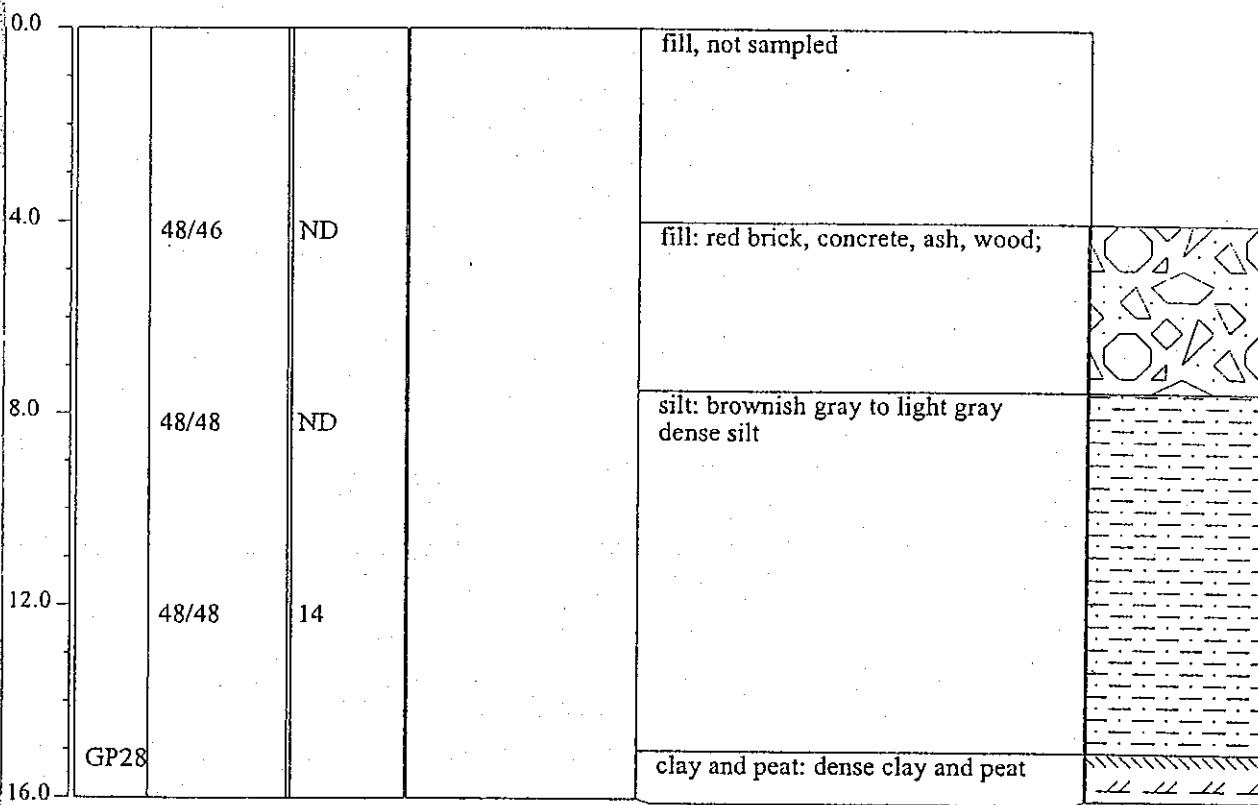
BOREHOLE NUMBER

GP-28

PROJECT NUMBER:	80030-0003	START TIME	1230
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1255
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/27/01	DATE COMPLETED:	02/27/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVER Y(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

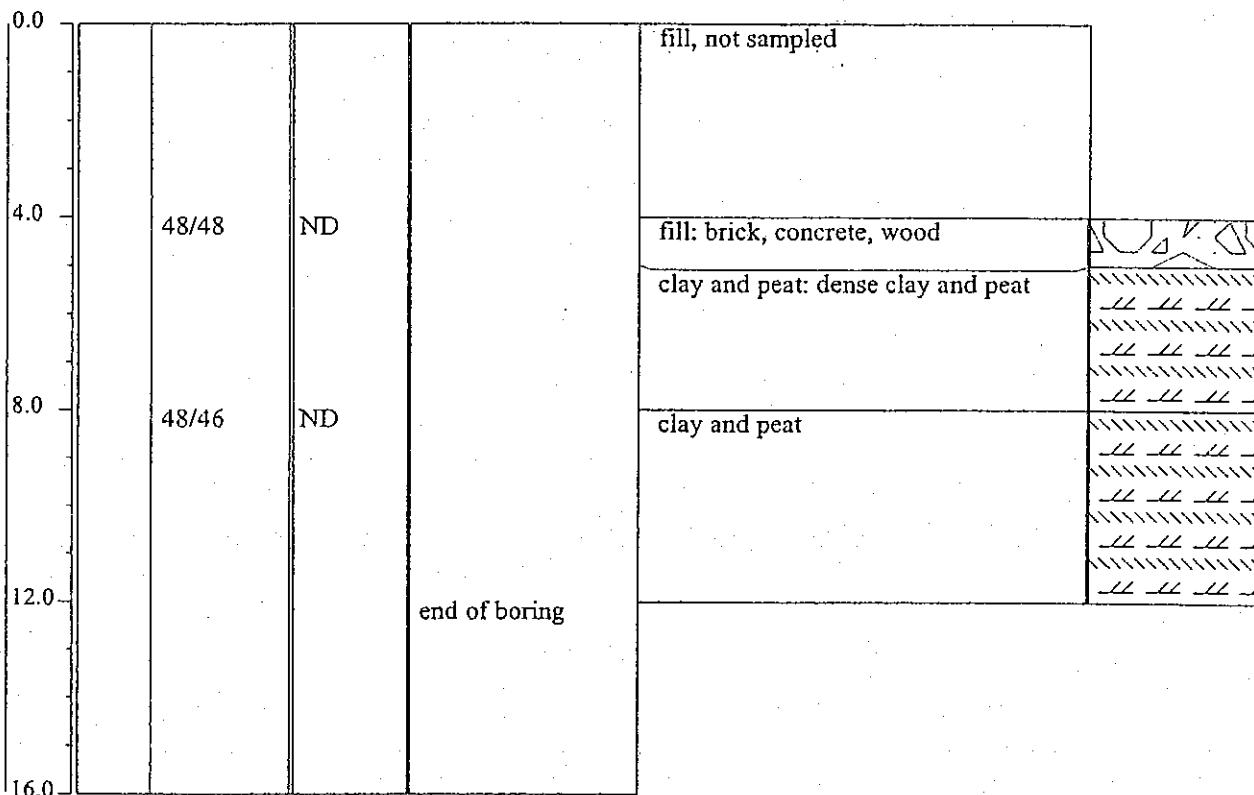
BOREHOLE NUMBER

GP-30

PROJECT NUMBER:	80030-0003	START TIME	1305
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1320
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/27/01	DATE COMPLETED:	02/27/01

STATIC WATER LEVEL (BLS)		
Depth (R)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-32

1255

1345

START TIME

END TIME

GROUND SURFACE ELEVATION: 0

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

PROJECT NUMBER: 80030-0003

124-136 Second Ave. (Gowanus)

LOCATION:

Brooklyn, NY

DRILLING CO:

GeoProbe

FIELD PARTY:

MOHAMED AHMED

DATE RECEIVED

02/21/01 DATE COMPLETED: 02/21/01

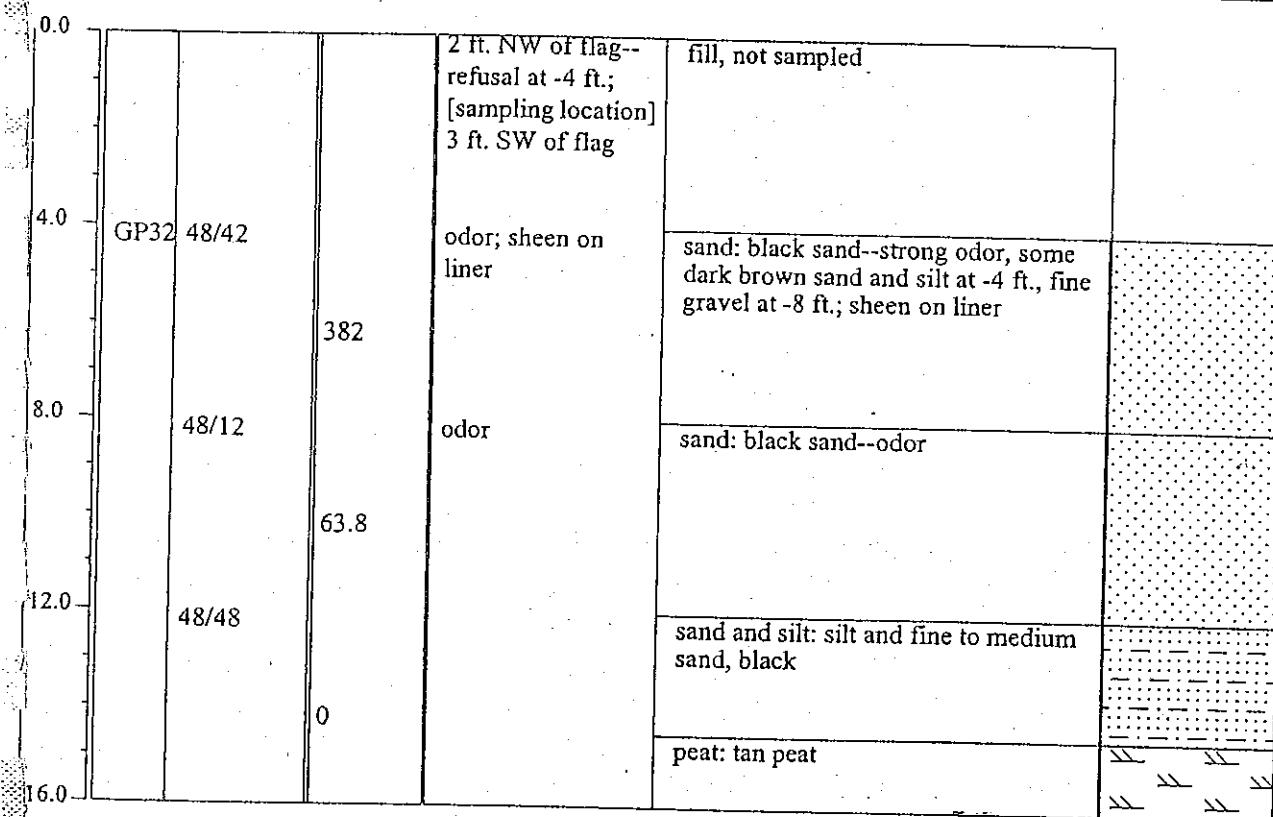
REMARKS

DESCRIPTION

LITHOLOGY

Table 1. Summary of the results of the study of the effect of the addition of organic acids on the properties of the polyacrylate polymer.

02/21/01



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FIELD BOREHOLE LOG

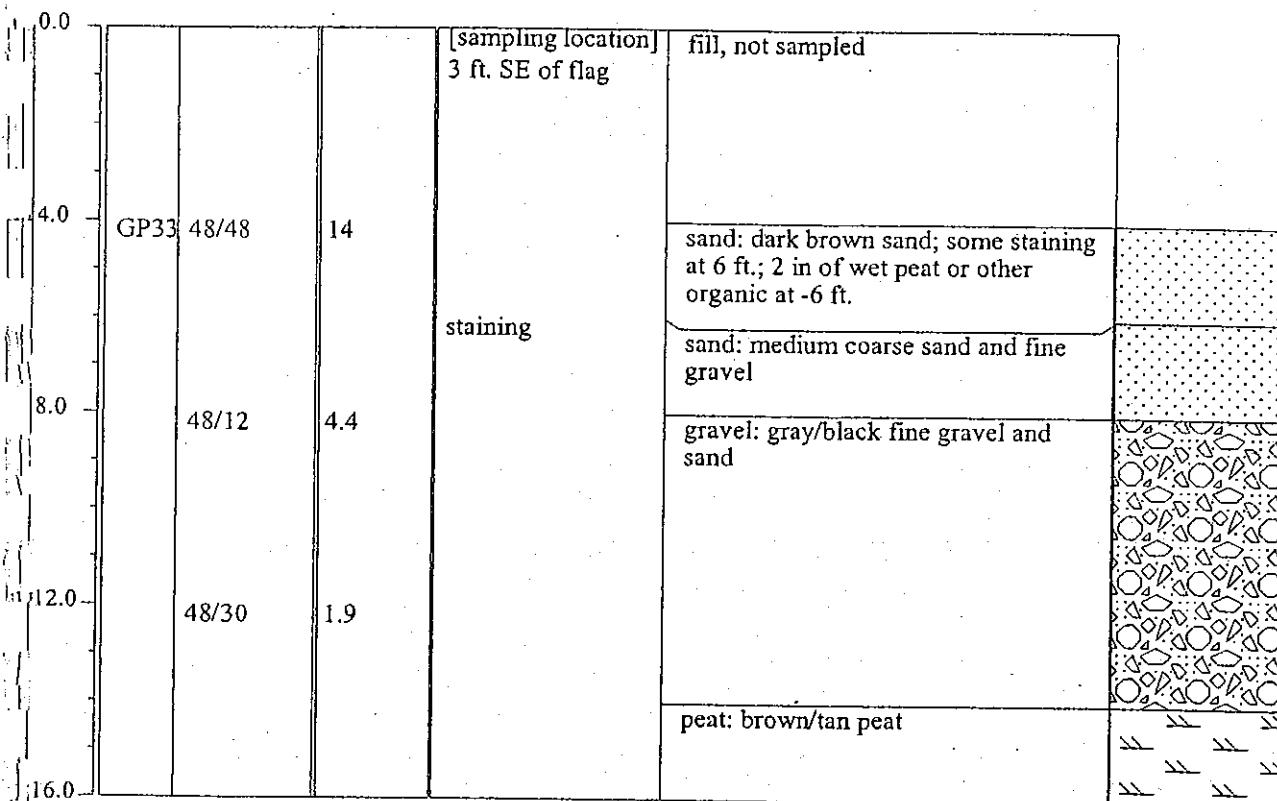
BOREHOLE NUMBER

GP-33

PROJECT NUMBER:	80030-0003	START TIME	1215
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1250
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	02/21/01	DATE COMPLETED:	02/21/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

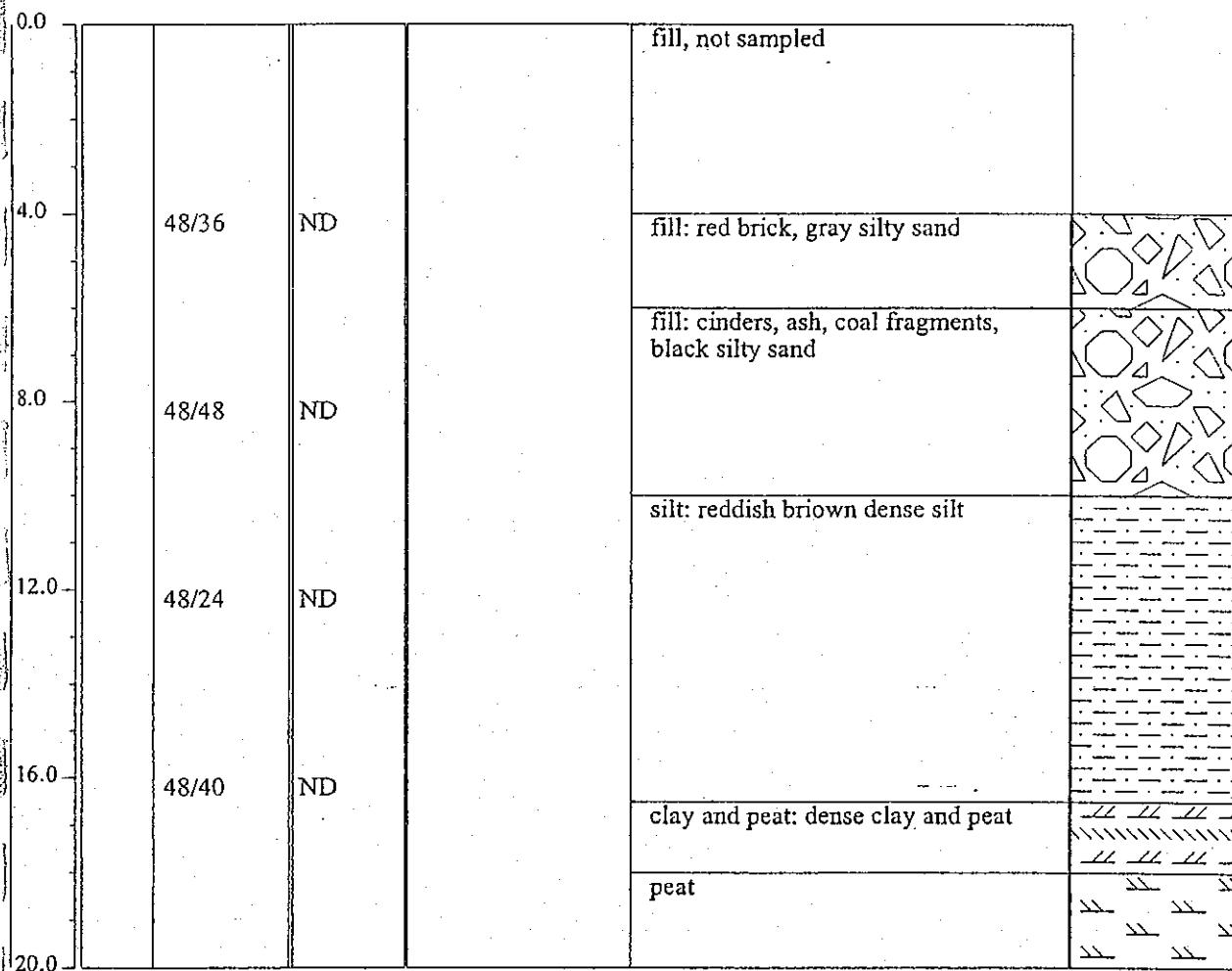
BOREHOLE NUMBER

GP-41

PROJECT NUMBER:	80030-0003	START TIME	1300
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1345
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGAN:	03/01/01	DATE COMPLETED:	03/01/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

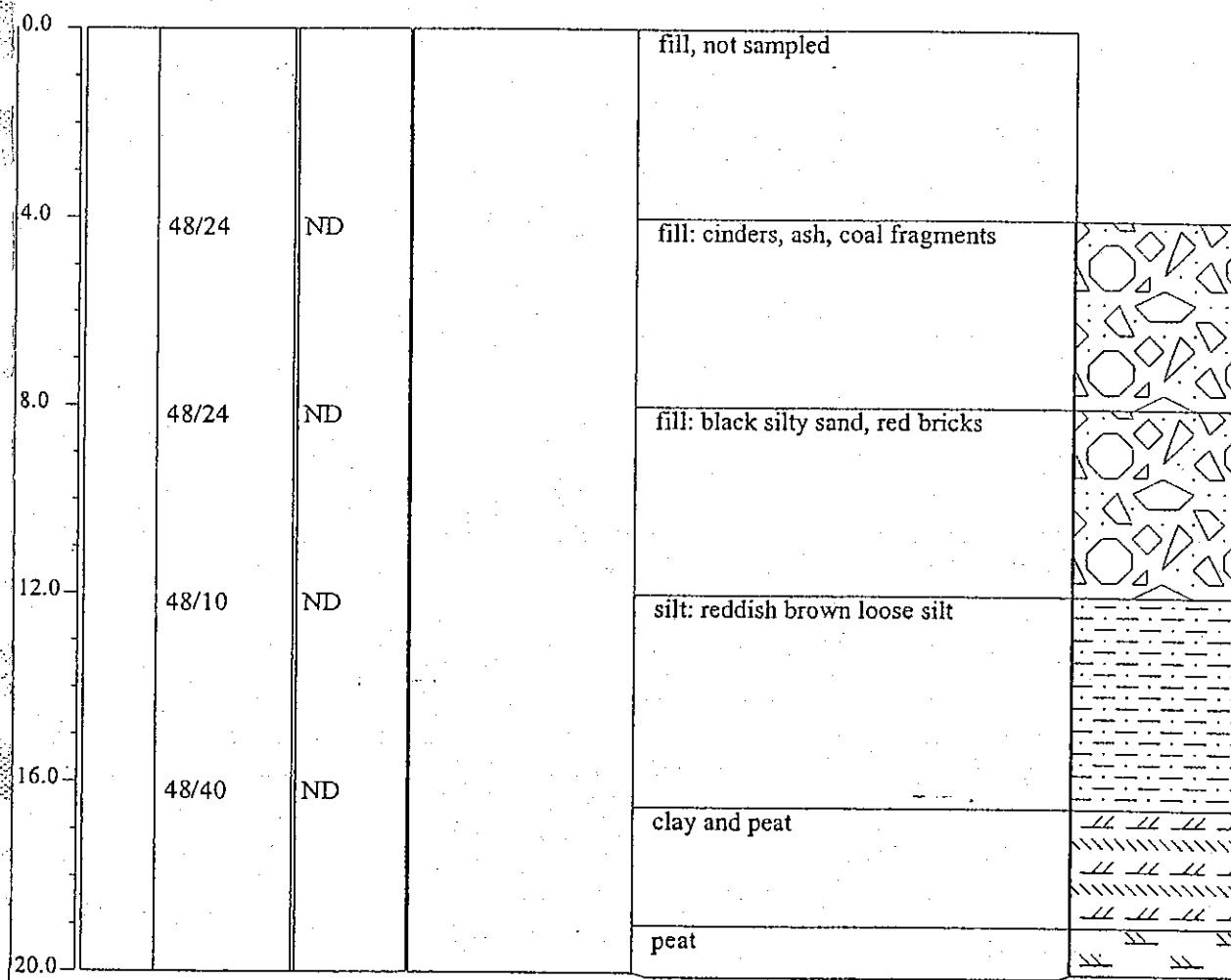
BOREHOLE NUMBER

GP-42

PROJECT NUMBER:	80030-0003	START TIME	1400
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	1405
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	03/01/01	DATE COMPLETED:	03/01/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

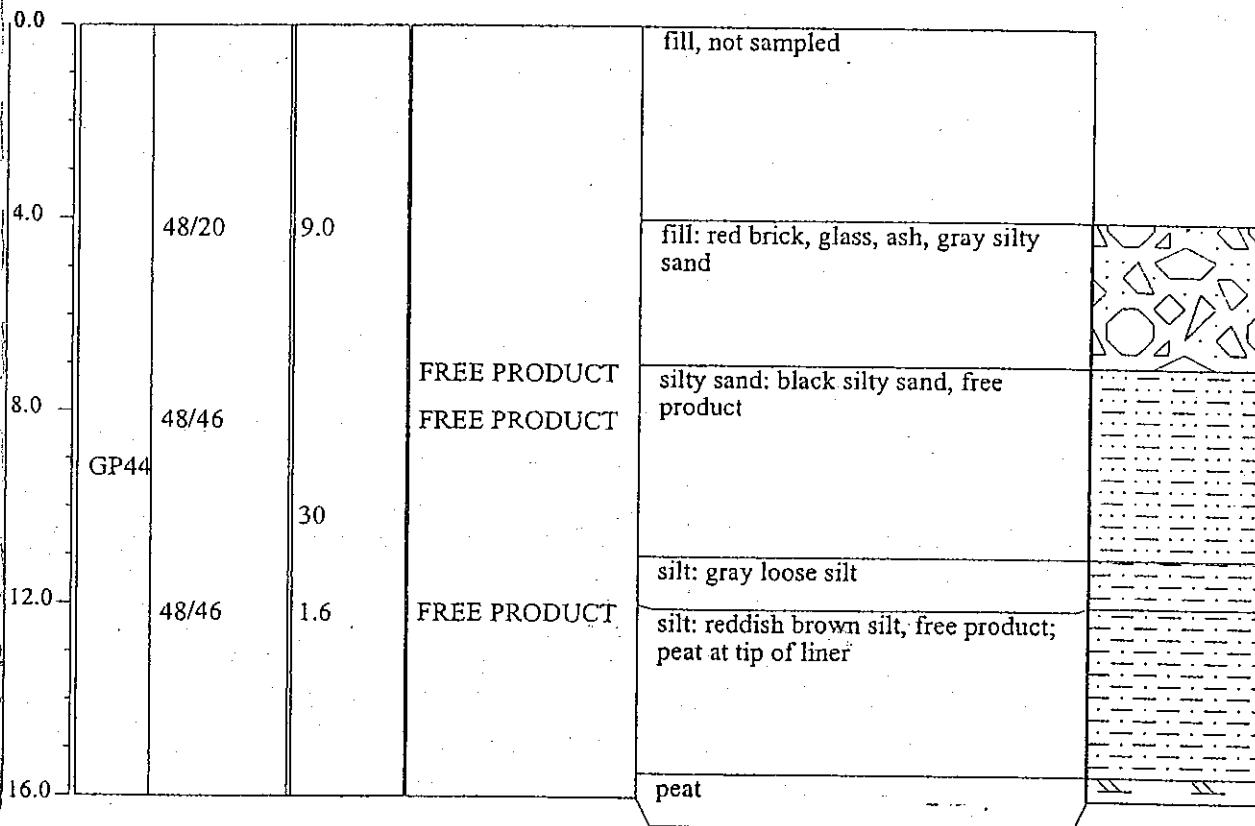
BOREHOLE NUMBER

GP-44

PROJECT NUMBER:	80030-0003	START TIME	1440
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME	
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION:	0
DRILLING CO:			
DRILLING METHOD:	GeoProbe		
FIELD PARTY:			
GEOLOGIST:	MOHAMED AHMED		
DATE BEGUN:	03/01/01	DATE COMPLETED:	03/01/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PtD(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-45

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

FIELD PARTY:

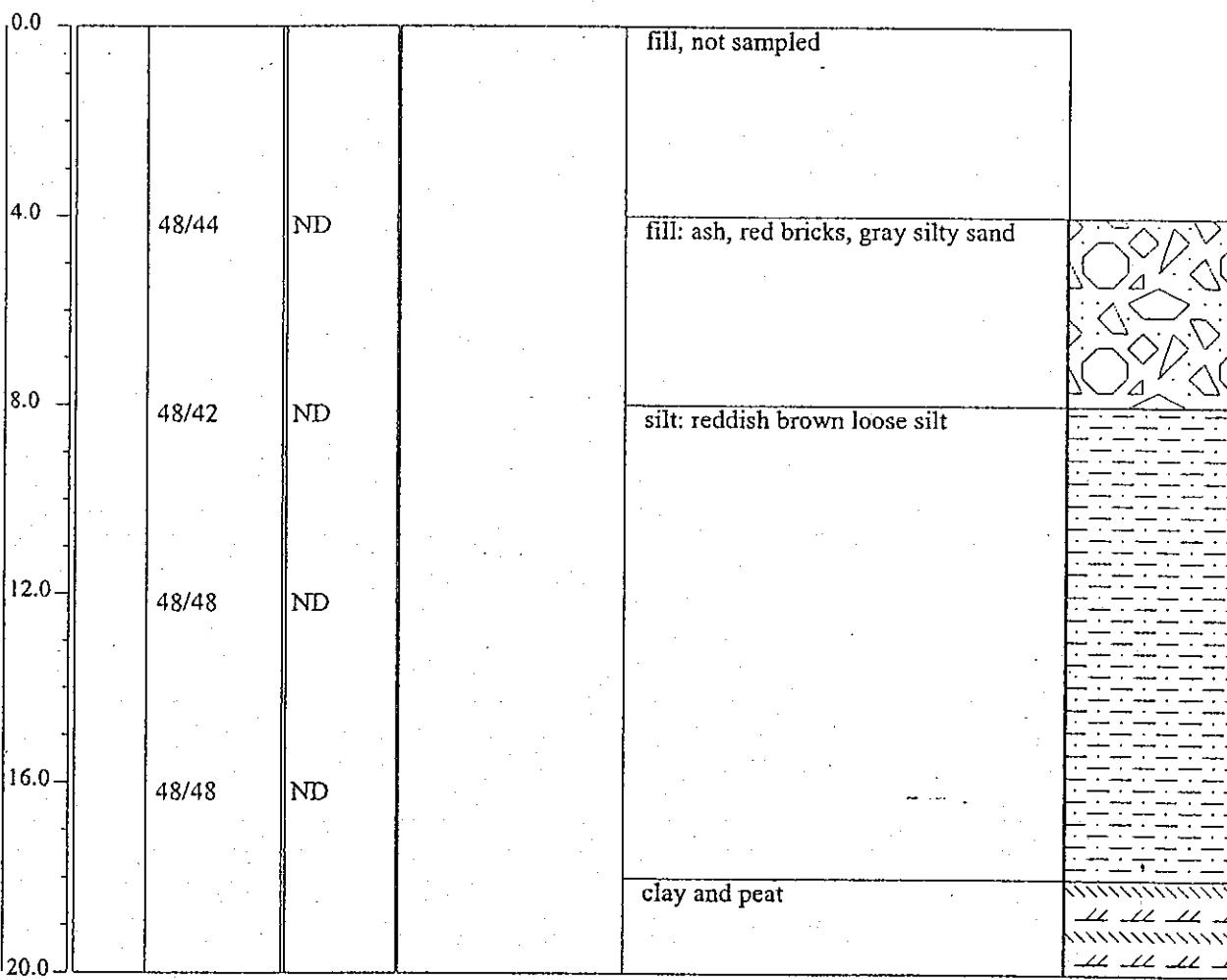
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 03/02/01 DATE COMPLETED: 03/02/01

STATIC WATER LEVEL (BLS)

Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVER Y(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-46

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

FIELD PARTY:

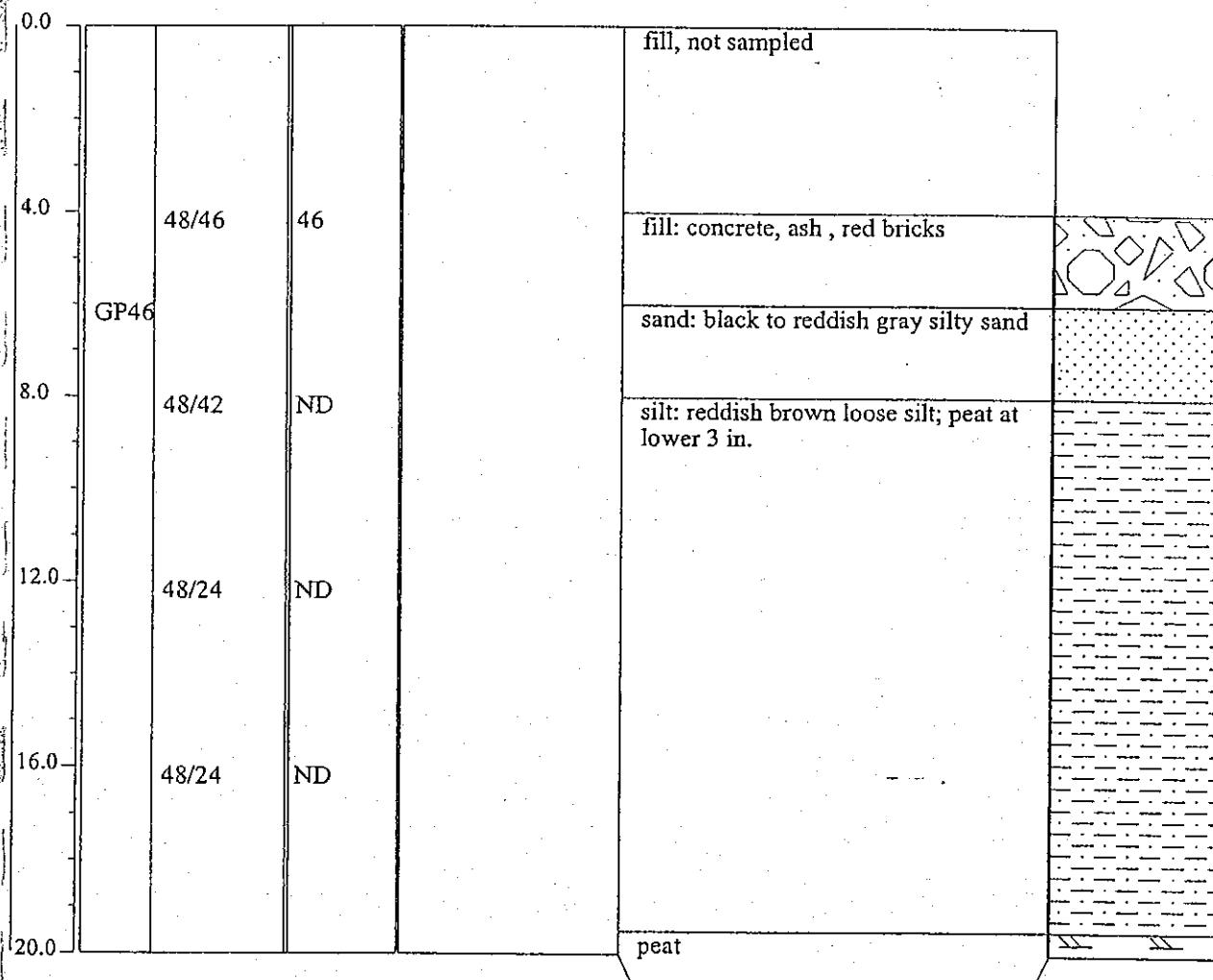
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 03/01/01 DATE COMPLETED: 03/01/01

STATIC WATER LEVEL (BLS)

Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-47

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

FIELD PARTY:

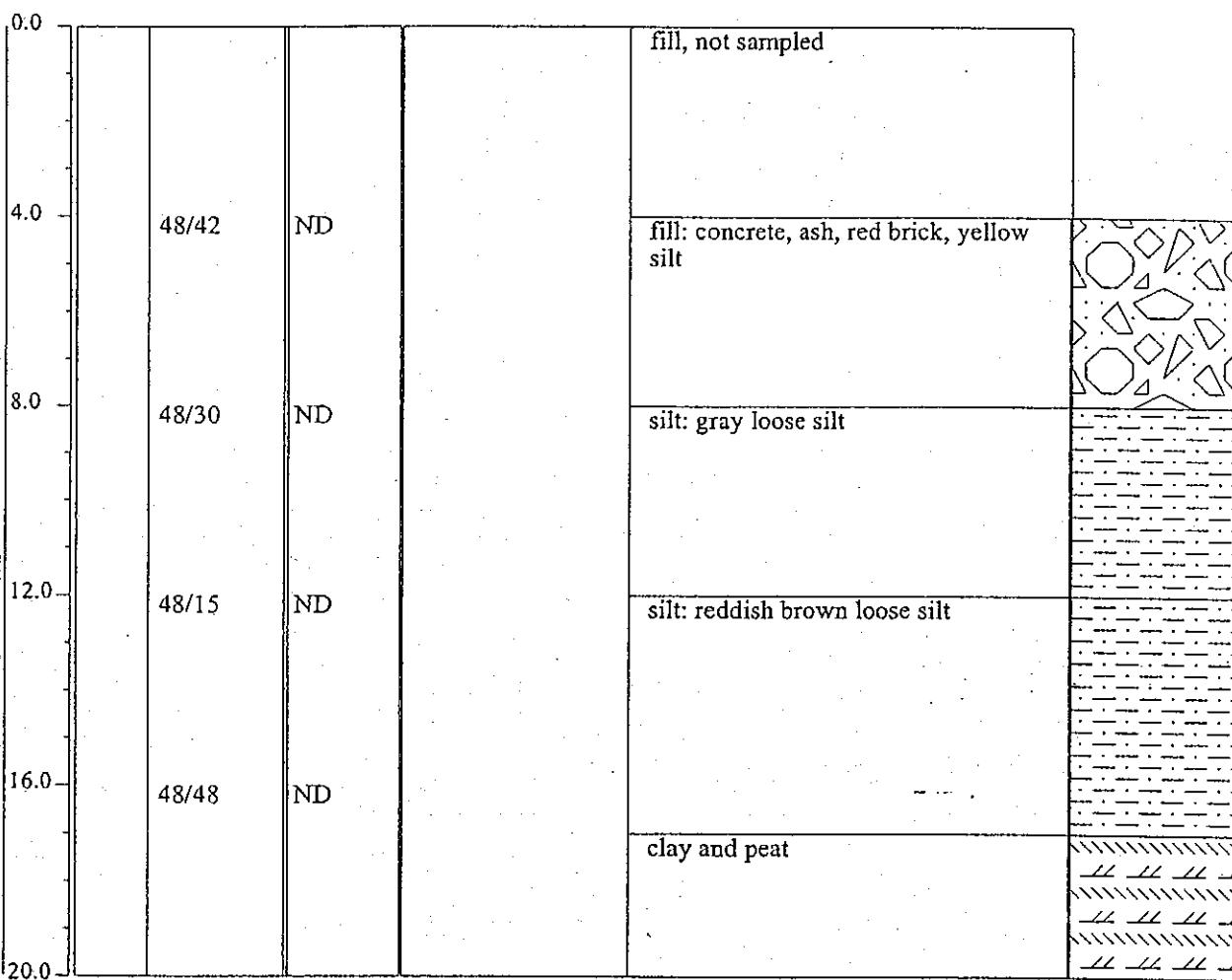
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 03/02/01 DATE COMPLETED: 03/02/01

STATIC WATER LEVEL (BLS)

Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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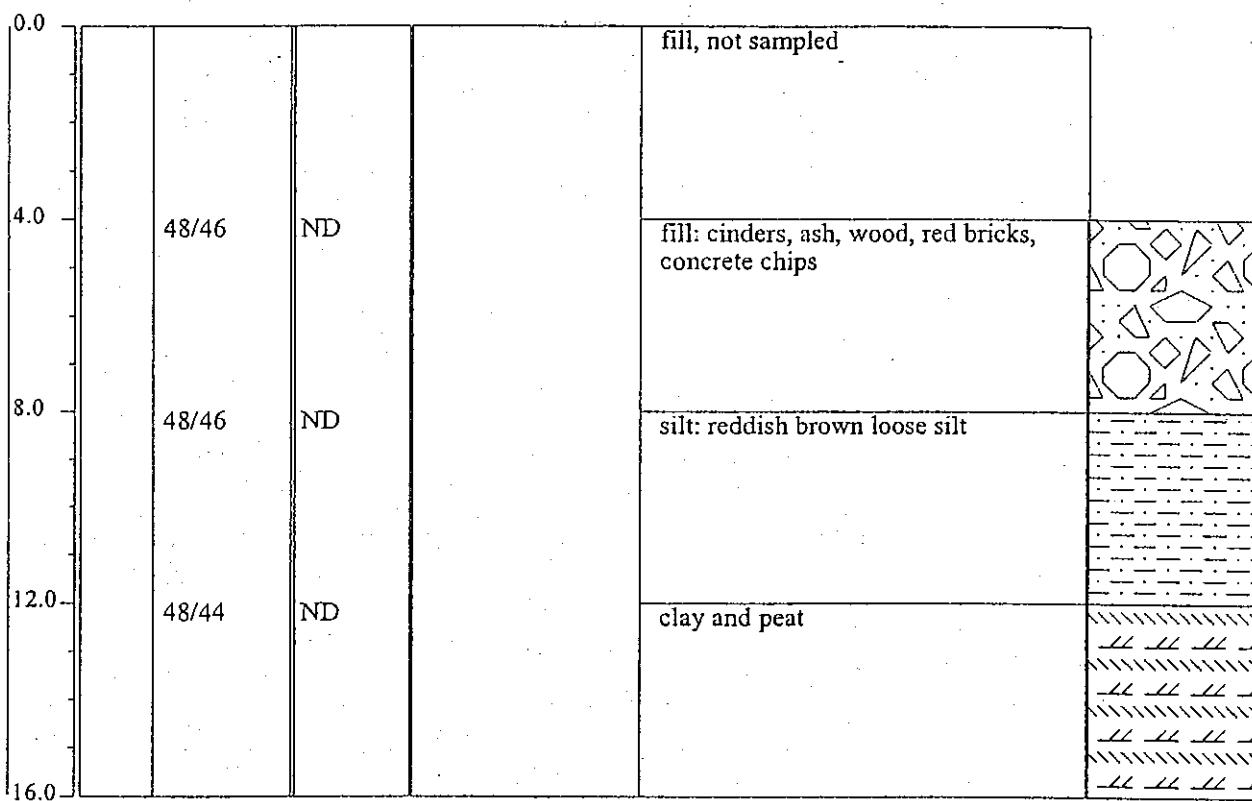
Environmental Consultants

FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-48

PROJECT NUMBER:	80030-0003	START TIME				
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME				
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION: 0				
DRILLING CO:						
DRILLING METHOD:	GeoProbe					
FIELD PARTY:						
GEOLOGIST:	MOHAMED AHMED					
DATE BEGUN:	03/02/01	DATE COMPLETED:	03/02/01	STATIC WATER LEVEL (BLS)		
DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-49

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

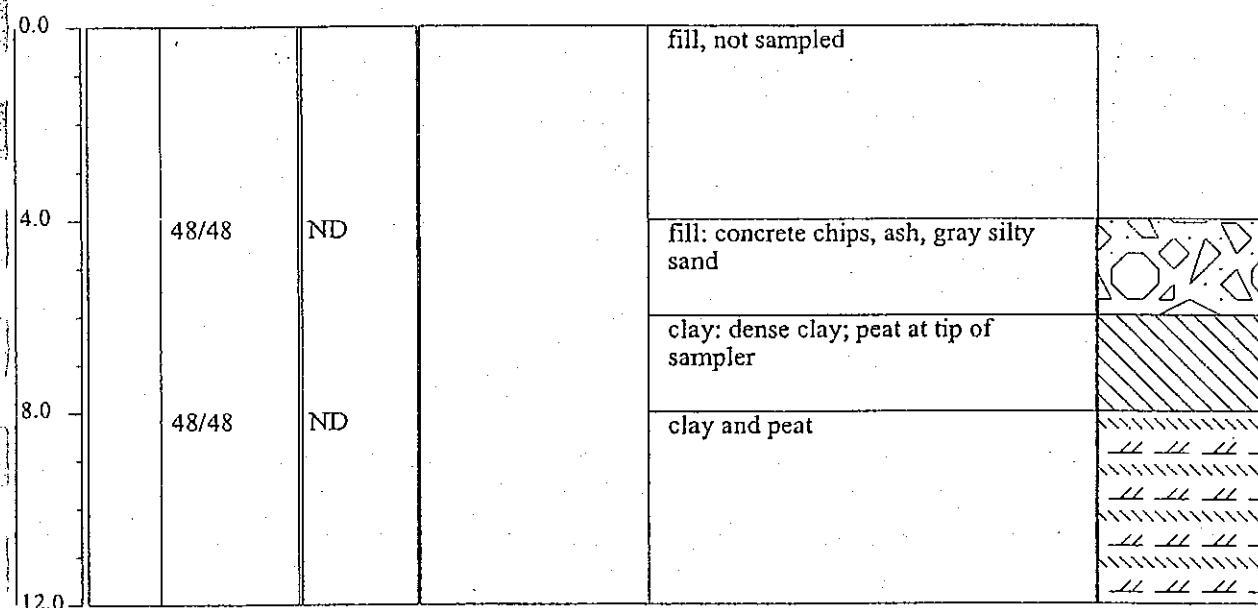
FIELD PARTY:

GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 03/02/01 DATE COMPLETED: 03/02/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID (ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-50

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

FIELD PARTY:

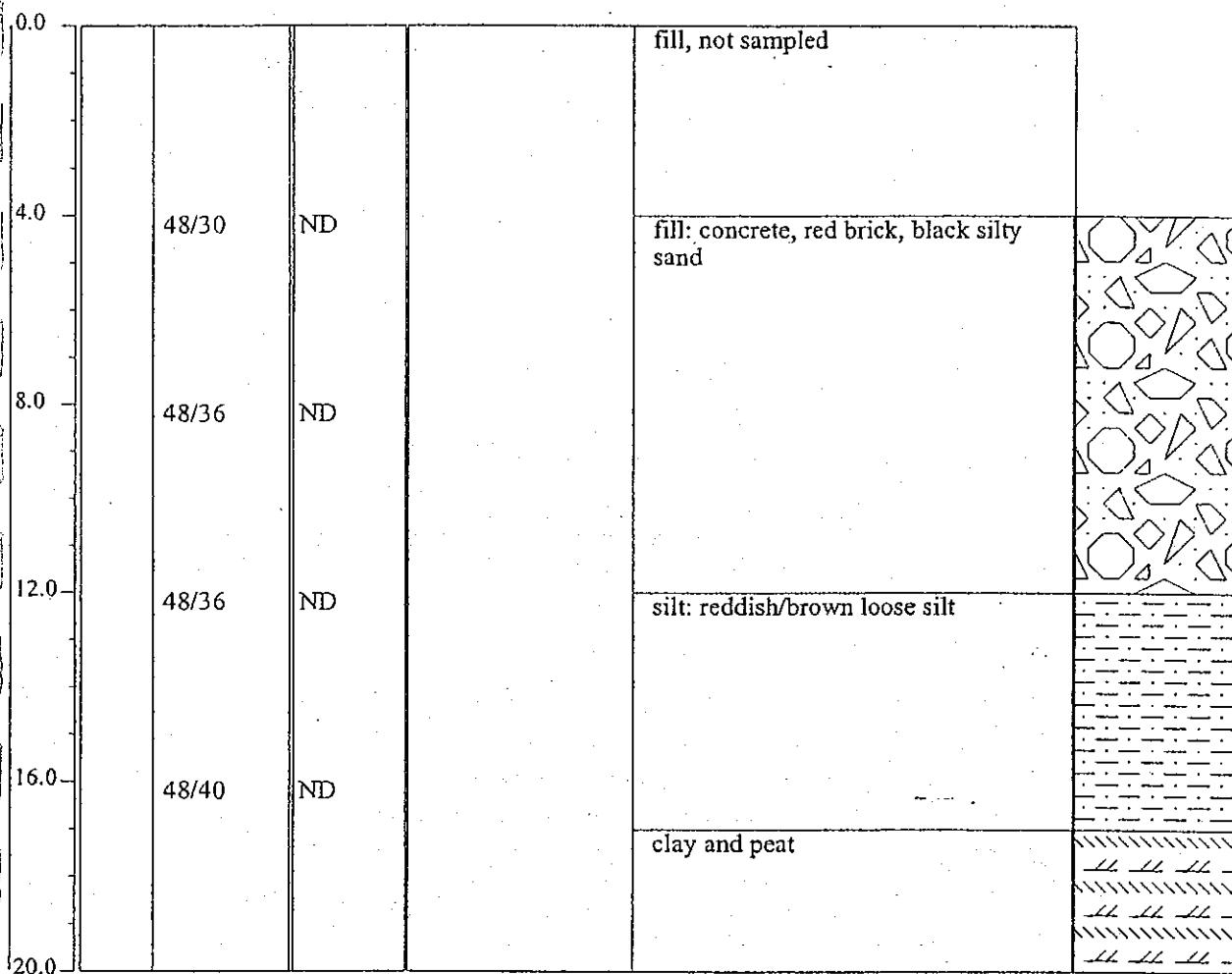
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: DATE COMPLETED:

STATIC WATER LEVEL (BLS)

Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY
0.0					fill, not sampled	



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-5 J

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION:

DRILLING CO.

DRILLING METHOD: GeoProbe

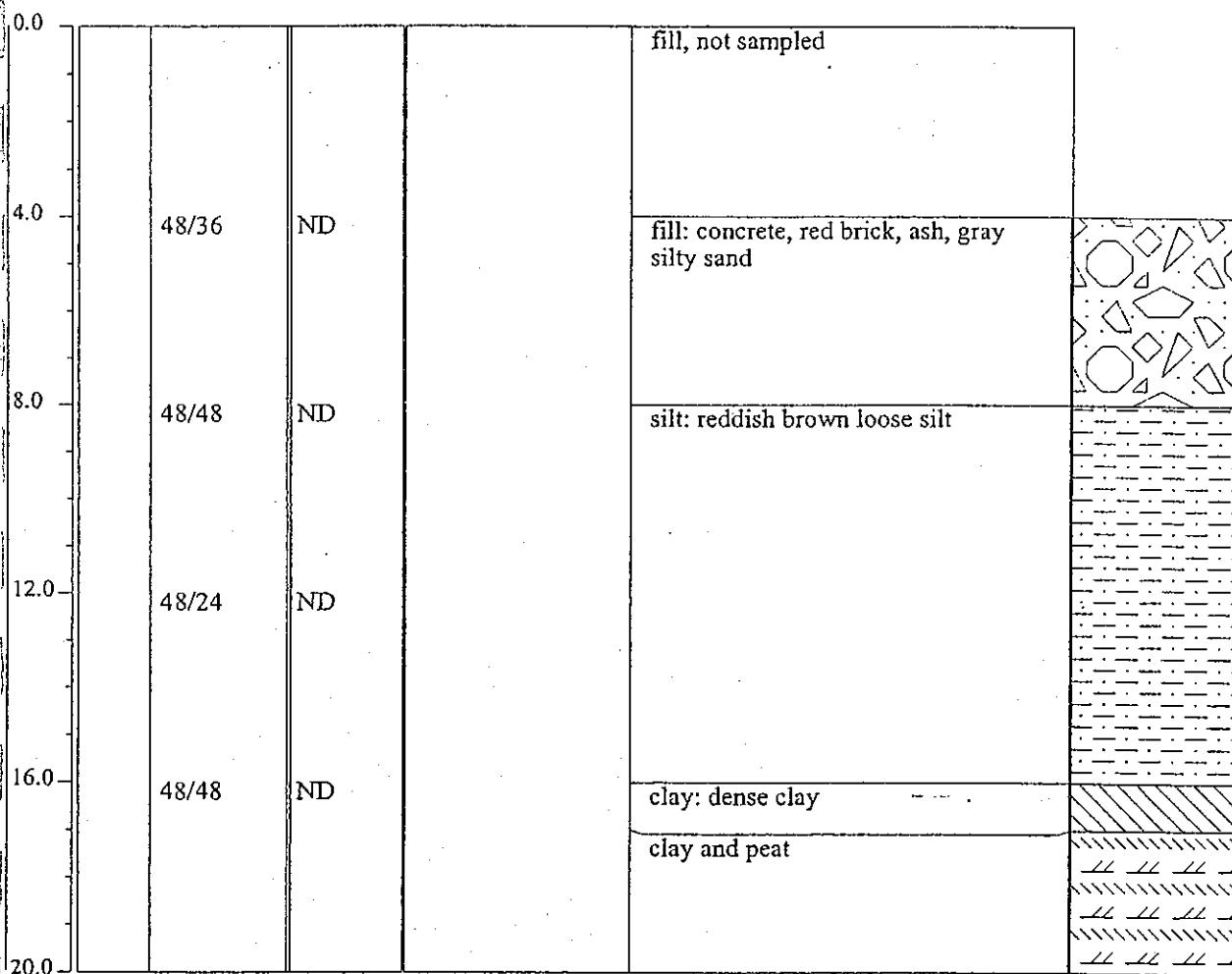
FIELD PARTY:

GEOLOGIST: MOHAMED AHMED

DATE BEGUN: 03/02/01 DATE COMPLETED: 03/02/01

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-53

PROJECT NUMBER: 80030-0003

START TIME

PROJECT NAME: 124-136 Second Ave. (Gowanus)

END TIME

LOCATION: Brooklyn, NY

GROUND SURFACE ELEVATION: 0

DRILLING CO:

DRILLING METHOD: GeoProbe

FIELD PARTY:

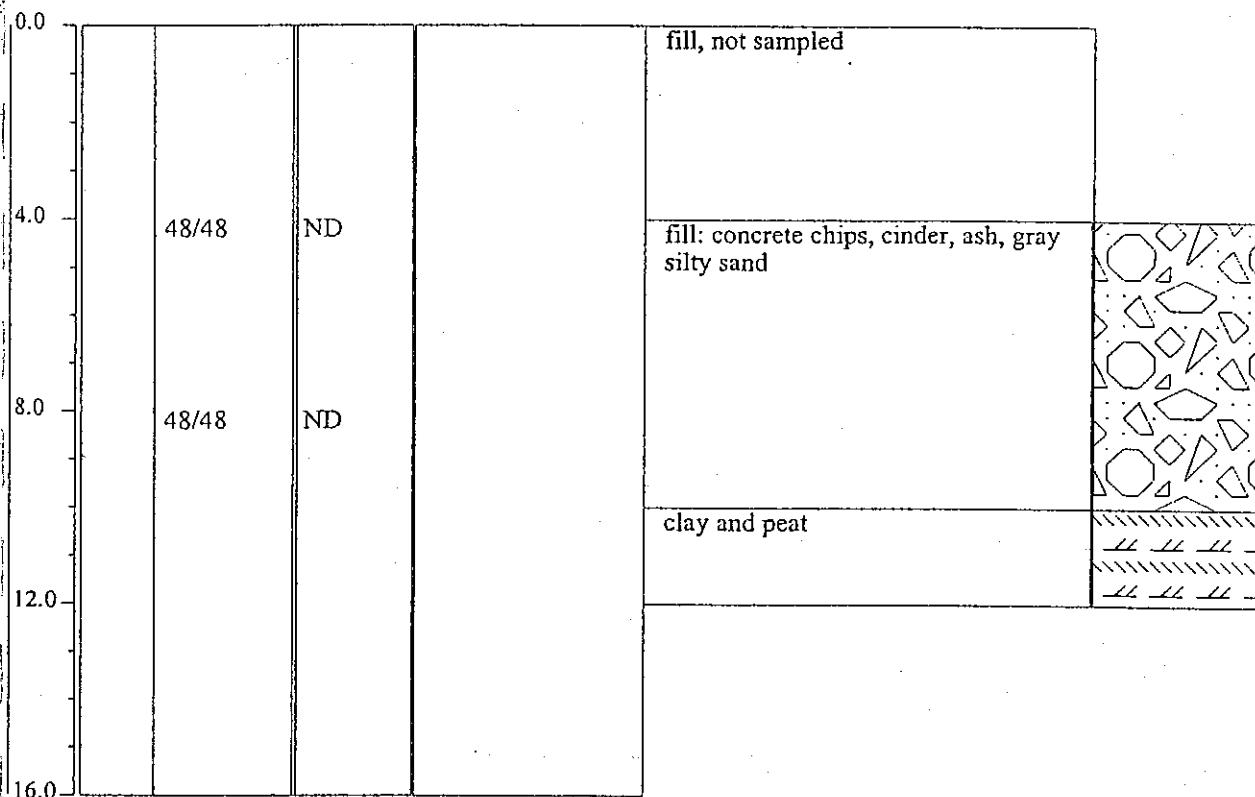
GEOLOGIST: MOHAMED AHMED

DATE BEGUN: DATE COMPLETED:

STATIC WATER LEVEL (BLS)

Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY (in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY



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FIELD BOREHOLE LOG

BOREHOLE NUMBER

GP-54

PROJECT NUMBER:	80030-0003	START TIME
PROJECT NAME:	124-136 Second Ave. (Gowanus)	END TIME
LOCATION:	Brooklyn, NY	GROUND SURFACE ELEVATION: 0
DRILLING CO:		
DRILLING METHOD:	GeoProbe	
FIELD PARTY:		
GEOLOGIST:	MOHAMED AHMED	
DATE BEGUN:	03/02/01	DATE COMPLETED:

STATIC WATER LEVEL (BLS)		
Depth (ft)	NA	
Time	NA	
Date	NA	

DEPTH (ft)	SAMPLE NUMBER	RECOVERY(in) [driven/recovered]	PID(ppm)	REMARKS	DESCRIPTION	LITHOLOGY

0.0					fill, not sampled	
4.0	GP54	48/46	324	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
8.0		48/24	159	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
12.0		48/24	227	FREE PRODUCT	silty sand: dark black silty sand, fill, red brick, free product	
16.0						

PROJECT LOCATION		PROJECT NO.								
Loews @ Gowanus Brooklyn, NY		1531601								
BORING EQUIPMENT		ELEVATION AND DATUM								
Davey Kent DK50RA Track Rig		approx. el 11 [BBHDD]								
SIZE AND TYPE OF BIT		DATE STARTED								
4 7/8" and 3 7/8" Tri-Cone Roller Bits		12/9/98 DATE FINISHED								
CASING DIAMETER (in)		COMPLETION DEPTH								
4 1/2" OD 4" ID		81 ft.								
CASING DEPTH (in)		WATER LEVEL								
18.5		(ft.)								
AMPLER		FIRST UNDIST.								
Standard Split Spoon (SS) or Shelby Tube (ST)		COMPL.								
SAMPLER HAMMER		24 HR. 8.5								
WEIGHT (lbs)		DROPS (in)								
140		30								
SAMPLE DESCRIPTION		DEPTH	SAMPLE DATA	REMARKS						
ELEV. (ft)	SYMBOL LOG	SCALE	NUMBER	TYPE	REC'D. (ft)	INCHES RESIST.	BURIN	N VALUE	BLOWS PER FT.	(DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
el 11	Inferred 4.5" CONCRETE		S1	SS	4.5	10 24 24 100/4"		48		*New York City BC Classification numbers in parenthesis
	Brown f.-m. SAND, trace c. sand, f. gravel, and silt (11-65)*		S2	SS	8	10 11 7 9		18		Hard slow drilling on concrete first 4.5' S1 SS Tip plugged with rocklike material (in S1 jar) PID = 580 ppm Added water D=0.25'
	Brown f.-m. SAND, trace c. sand (11-65)		S3	SS	11	2 3 3 2		6		Spoon refusal D=2' Rig chalter D=2' Petroleum like material floating in wash tub D=5' PID = 620 ppm
0.0	Brown f.-m. SAND, trace c. sand (11-65)		S4	SS	16	1				Started casing D=10'
	Brown f.-m. SAND, trace organics/root, f.-m. gravel, clay, silt, and c. sand (11-65)		S5	SS	16	2 1 1 1		2		PID = 320 ppm
	Gray silty CLAY, some organics/root (11-65)		T1	ST	30	PUSH PUSH PUSH PUSH WOH				PID = 420 ppm
	Gray silty CLAY, trace organics/root (11-65)		S6	SS	24	2 3 3 2		5		Advanced casing D=10'-13.5'
	Gray silty CLAY, trace organics/root (11-65)		S7	SS	17	5 7 14 21		21		PP = 0.3-0.6 tsf PID = 150 ppm
	Brown SILT, trace f. sand and clay (10-65)		S8	SS	16	5				PP = 0.2-0.3 tsf TV = 0.23 tsf WOH : Weight of Hammer PP = 0.2-0.3 tsf PID = 480 ppm
	Brown/grey CLAY and SILT, trace f. sand (10-65)		S9	SS	16	5				PID = 660 ppm
	Brown f. SAND, trace silt and clay (8-65)		S10	SS	15	14 22 22 16		42		S8 4" Lens of Brown f. SAND, trace silt and clay (8-65) w/ PID = 580 ppm in top of SS PP = 1.2-2.1 tsf PID = 720 ppm S10 2" Gray f. SAND, trace clay and silt w/ PID = 850 ppm in bottom of SS Visible petroleum like material D=30'-32'
	Brown f. SAND, trace silt and clay (8-65)		S11	SS	15	14 22 22 16		42		PID = 380 ppm
			S12	SS	16	12 13 12 13		25		Brown f. sandy SILT, trace clay in SS tip PID = 330 ppm Trace visible petroleum like material



PROJECT LOCATION		PROJECT NO. ELEVATION AND DATUM		SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	REC'D. IN.	PENETR. IN.	RESIST. IN.	BLWS. SERIAL	
	Brown f. sandy SILT, trace clay (10-65)		45	S13	SS	17	17	17	32	PID = 570 ppm
	Brown SILT, trace clay and f. sand (10-65)		50	S15 S1	SS	15	14	15	37	PID = 540 ppm
	Brown f. SAND, trace silt (8-65)						22	26		PID = 650 ppm Trace visible petroleum like material
	Brown f. SAND, trace m. sand (7-65)		55	S16	SS	14.5	11	10	32	PID = 710 ppm
	Gray f. SAND, trace m.-c. sand (7-65)		60	S17	SS	13.5	15	20	42	Brown/gray SILT, trace f. sand and clay in SS tip PID = 530 ppm Trace visible petroleum like material near bottom of SS tip Minor on/off rig chatter D=60.5'-63'
	Brown f. sandy SILT, trace clay (10-65)		65	S18	SS	13	19	23	46	PID = 1240 ppm
	Red brown f. sandy SILT, some f. sand, trace clay (10-65)		70	S19	SS	15.5	22	28	57	PID = 950 ppm
	Inferred Red brown f.-c. SAND, trace f.-m. gravel (7-65)		75	S20	SS	13	51	55		On/off rig chatter D=73'-74.5' Slow/hard drilling D=74.5'-75.5' w/ rig chatter
	Inferred BOULDER (6-65)						100/5'	68/11		
	Red brown f. SAND, trace silt, f. gravel, m.-c. sand, and clay (6-65)									PID = 900 ppm Spoon refusal D=77.5' Slow/hard drilling D=77.5'-78.75'
	Inferred BOULDER (6-65)									
	Red brown and brown f.-m. SAND, trace f.-m. gravel, c. sand, silt, and clay		80	S21	SS	24	19	41	77	PID = 1200 ppm
	Boring terminated D=81'		85				36	36		
			90							



Langan
Engineering and Environmental Services

LOG OF BORING LB2

SHEET 1 OF 2

PROJECT	Loews @ Gowanus			PROJECT NO.			1531601					
LOCATION	Brooklyn, NY			ELEVATION AND DATUM			approx. el 11 [BBHDD]					
DRILLING EQUIPMENT	Davey Kent DK50RA Track Rig			DATE STARTED			12/8/98	DATE FINISHED	12/9/98	COMPLETION DEPTH	80 ft.	
SIZE AND TYPE OF BIT	4 7/8" and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES			20	UNDIST.	CORE			
CASING DIAMETER (in)	Casing Depth (ft)			WATER LEVEL			FIRST	COMPL		24 HR.	6.5	
SAMPLER	4 1/2" OD 4" ID			13.5								
	2" OD 1 3/4" ID Split Spoon (SS)			DRILLING FOREMAN			Tom Gregory/Kurt Conlon					
	SAMPLER HAMMER			WEIGHT(lbs)	140	DROP(in)	30	INSPECTING ENGINEER			Gary L. Gleason	
ELEV. (ft)	SAMPLE DESCRIPTION			SYMBOL LOG	DEPTH SCALE		SAMPLE DATA			REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)		
approx. el 11	4" CONCRETE Brown and black f. SAND, trace silt, f.-c. sand, f. gravel, and coal (11-65)						S1	SS	13.5	32 29 24 23	52	"New York City BC Classification numbers in parenthesis Started drilling w/ water
0.0	Black and brown c. SAND and f. GRAVEL/COAL, trace f.-m. sand and silt (11-65)				5		S2	SS	13	10 7 9 7	18	PID = 850 ppm On/off rig chatter D = 0.75'-5'
	Gray silty CLAY, some brown peat, trace f. sand (11-65)				10		S4	SS	8	2 1 4 3	5	PID = 102 ppm
	Brown/black f. SAND, some silt, trace clay (11-65)				15		S5	SS	18	4	6	PID = 9 ppm PID = 10.2 ppm
	Brown f. sandy SILT, trace clay (11-65)				20		S8	SS	24	1 3 5 3	8	PID = 19.6 ppm
	Gray/brown PEAT, trace f. sand, silt, and clay (11-65)				25		S9	SS	15	4 5 7	8	PID = 400 ppm Added mud D = .15'
	Gray silty CLAY, trace organics/root (11-65)				30		S10	SS	19.5	11 10 8 7	18	PP = 0.6 - 1.25 tsf PID = 19.7 ppm
	Gray f. SAND, some clay, trace silt (8-65)				35		S11	SS	18	14 15 22 24	38	PID = 9 ppm
	Brown f. gray f. SAND, some silt, trace clay (8-65)				40		S12	SS	18	5 12 10	19	PID = 330 ppm Visible petroleum like material
	Brown f.-m. sandy SILT, trace clay (10-65)											PID = 800 ppm
	Brown f. SAND, trace m. sand (7-65)											PID = 20 ppm
	Brown/gray f. SAND, trace m. sand, clay, and silt (8-65)											

PROJECT Loews @ Gowanus		PROJECT NO. 1531601			
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]			
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
	Brown f. sandy SILT, trace clay (10-65)	45	S13 SS 18 10 11 13	21	PID = 500 ppm
	Brown f. sandy SILT, trace clay (10-65)	50	S14 SS 14 18 19 22 23	41	PID = 1020 ppm
	Brown SILT, trace f. sand and clay (10-65)	55	S15 SS 17 19 24 25	48	PID = 830 ppm Gray/brown f. SAND, trace silt in S15 SS lp
	Brown f. SAND, trace m. sand and silt (7-65)	60	S16 SS 18 11 17 17 13	34	PID = 50 ppm Slightly visible petroleum like material
	Brown f. SAND, trace m.-c. sand, f. gravel, and silt (7-65)	65	S17 SS 14 17 44 44 24	88	PID = 800 ppm Visible petroleum like material
	Brown f.-m. SAND, trace c. sand, f. gravel, and silt (7-65)	70	S18 SS 5.5 14 13 13 22	29	PID = 880 ppm Rig charter D = 72.5' - 75'
	Inferred boulder (6-65)	75	S19 SS 11 32 26 32 21	58	Very slow/hard drilling D = 72.5' - 73.5'
	Red brown f. SAND, some m.-c. gravel, trace silt, m.-c. sand, f. gravel, and clay (6-65)	80	S20 SS 6 32 32 25 29	57	PID = 600 ppm
	Red brown f. SAND, trace silt and clay (8-65)	85			PID > 2000 ppm
	Boring terminated D = 80'	90			Borehole grouted upon completion



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Engineering and Environmental Services

LOG OF BORING

LB3

SHEET 1 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601						
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]						
DRILLING EQUIPMENT Davey Kent DK50RA Track Rig		DATE STARTED 12/8/98		DATE FINISHED 12/9/98		COMPLETION DEPTH 80.5 ft.		
SIZE AND TYPE OF BIT HW Rock Core and Tri-Cone Roller Bits		NUMBER OF SAMPLES	DIST.	UNDIST.	CORE			
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH (ft) 19.5	WATER LEVEL (ft.)	FIRST V	COMPL V	24 HR. V	2.6		
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Gus Suri/Mike Chizmar						
SAMPLER HAMMER	WEIGHT (lbs) 140	DROP (in) 30	INSPECTING ENGINEER Gary L. Gleason					
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA				REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. BLDG	
approx. el 11	6" CONCRETE w/ wire mesh Inferred miscellaneous FILL (11-65) Black/gray f.-m. SAND, trace silt, c. sand, f. gravel, V and coal (11-65)		25		25	77	*New York City BC Classification numbers in parentheses Started coring w/ water	
	Brown f.-m. SAND, trace red brick and silt (11-65)		S1	SS	8	33 44 91	PID = 125 ppm Slightly visible petroleum like material	
	Brown c. SAND, some f. gravel, trace clay, silt, and f.-m. sand (11-65)		S2	SS	3	21 28 12	Or/Off rig charter D = 1' - 5'	
	Brown f.-c. SAND, some gravel, trace clay and silt (11-65)		S3	SS	8	15 4 4 7	Petroleum like material floating in wash tub D = 5'	
	Brown f.-c. SAND and f. GRAVEL, some clay, trace silt (11-65) Inferred CONCRETE		S4	SS	4	5 2 3 4	PID = 84 ppm	
	Brown SILT, trace clay, f. sand, and f. gravel (10-65)		S5	SS	2.5	102/2.5		
	Brown/gray SILT, trace clay and f. sand (10-65)		S6	SS	7	6 10 8 13	Added mud D = 15'	
	Brown f. SAND, trace silt and clay (8-65)		S7	SS	11	5 8 7	PID = 55 ppm Slightly visible petroleum like material	
	Brown f. sandy SILT, trace clay (10-65)		S8	SS	10	3 4 4 12	Relusal D = 20' Hard drilling D = 20.25' - 20.75'	
			S9	SS	14	7 12 12 14	PID = 340 ppm Visible petroleum like material Added mud D = 20'	
			40					
						PID = 220 ppm		
						Hole too tight D = 23' to get rods down so removed existing casing and drilled to D = 30' w/ 4 7/8" bit, then spun/cored casing D = 19.5'		
						PID = 45 ppm Slightly visible petroleum like material		
						PID = 480 ppm		
						PID = 640 ppm		



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LOG OF BORING LB3

SHEET 2 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601								
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]								
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	REGO.	PENETR. (in)	RESIST. BLAD	N-VALUE BLOWS INCH	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown f. SAND, trace silt (8-65)		45	S11 S1	SS	12	11 10 10 10		20	PID = 25 ppm S11 4' Lense of brown SILT, trace clay and f. sand (10-65) w/ PID = 55 ppm in bottom of SS
	Brown f.-m. SAND (7-65)		50	S12	SS	14	10 11 12 17		23	PID = 90 ppm
	Brown f. SAND, trace m.-c. sand (7-65)		55	S13	SS	8.5	11 14 19 17		33	PID = 9.8 ppm
	Brown f. SAND, trace m.-c. sand and silt (7-65)		60	S15 S16	SS	11.5	15 17 17 19		34	PID = 260 ppm
	Brown/gray SILT, trace clay and f. sand (10-65)		65	S18	SS	5	25 100/3'		100/3'	PID = 210 ppm
	Red brown f. SAND, some silt, trace f. gravel, m.-c. sand, and clay (7-65)		70	S18 S17	SS	8	17 40 22 21		62	Spoon refusal D = 66' w/ bouncing Rig chatter D = 68' PID = 95 ppm
	Red brown f.-m. SAND, trace c. sand and f. gravel (7-65)		75							PID = 510 ppm
	Red brown SILT, trace f. gravel, f.-c. sand, and clay (10-65)		80							PID = 800 ppm
	Inferred BOULDER		85							Minor on/off rig chatter D = 72' - 76.5'
	Inferred Red brown f.-c. SAND, trace f. gravel, silt, and clay (7-65)		90		SS	0	58 93 100/3'		53/11	Slow/hard drilling D = 76.5' - 79' w/ minor rig chatter
	Boring terminated D=80.5'									Spoon refusal D = 80.5' Borehole grouted upon completion



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LOG OF BORING

LB4

SHEET 1 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601								
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]								
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	RECOV. (%)	PENETR. IN.	RESIST. BLK/in	N-VALUE BLOWS IN. SQFT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown f. SAND, trace silt and clay (8-65)		45	S8	SS	16	9 12 17 13	29		PID = 1.8 ppm
	Brown SILT, some f. sand, trace m. sand and clay (10-65)		50	S9	SS	15.5	13 15 21 21	36		PID = 368 ppm
	Brown f. sandy SILT, trace m. sand (10-65)		55	S10	SS	11	13 19 19 15	36		PID = 7 ppm PID = 13.5 ppm
	Brown f. SAND, trace m. sand and silt (7-65)		60	S12	SS	11	12 16 16 15	32		
	Brown/gray f. SAND, trace m. sand and silt (7-65)		65	S13	SS	11	25 39 32 45	72		PID = 5.2 ppm Slightly visible petroleum like material
	Red brown f.-m. SAND, trace f. gravel, c. sand, silt, and clay (7-65)		70	S14	SS	12	32 55 56 87	111		Rig chatter D=64.5'-65'
	Red brown f.-m. SAND, trace f.-m. gravel, c. sand, and silt (7-65)		75	S15	SS	2.5	100/4.5		R*	PID = 780 ppm
	Red brown c. SAND, some f.-m. sand and f.-m. gravel, trace silt (6-65)		80	S16	SS	14.5	40 82 87 102	140		On/off rig chatter D=65'-70'
	Red brown f.-m. gravelly f.-m. SAND, trace c. sand and silt (6-65)		85							Added mud D = 70' PID = 1 ppm
	Boring terminated D=80'		90							On/off rig chatter D=70'-75'

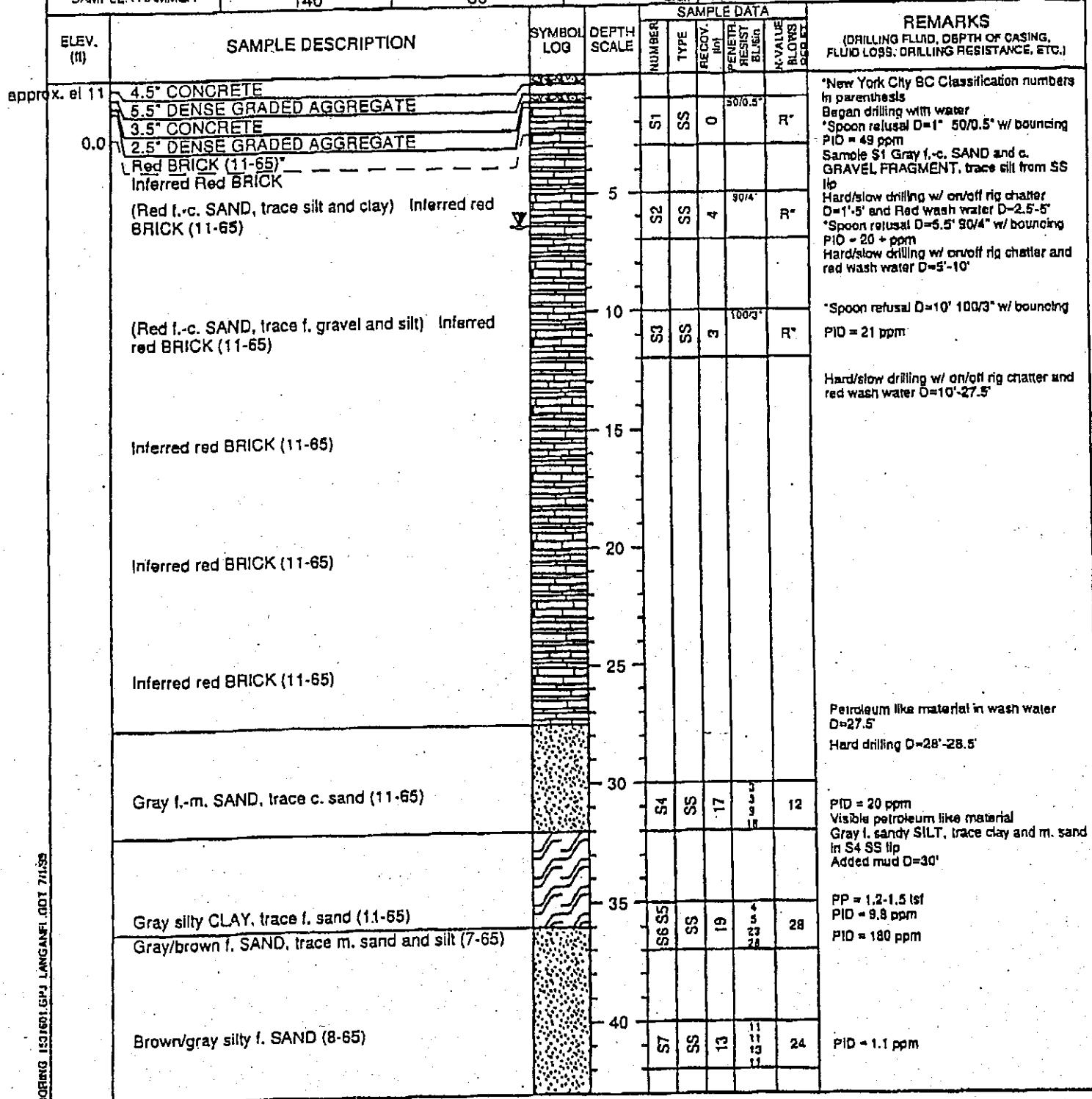


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LOG OF BORING LB5

SHEET 1 OF 2

PROJECT	Loews @ Gowanus			PROJECT NO.	1531601		
LOCATION	Brooklyn, NY			ELEVATION AND DATUM	APPROX. el 11 [BBHDD]		
DRILLING EQUIPMENT	Davey Kent DK50RA Track Rig	DATE STARTED	12/4/98	DATE FINISHED	12/8/98	COMPLETION DEPTH	80 ft.
SIZE AND TYPE OF BIT	4 7/8" and 3 7/8" Tri-Cone Roller Bits	NUMBER OF SAMPLES	15	UNDIST.	—	CORE	—
CASING DIAMETER (in)	(Casing Depth)(in)	WATER LEVEL (ft.)	FIRST	COMPL	24 HR.	6.4	
SAMPLER	2" OD 1 3/4" ID Split Spoon (SS)	DRILLING FOREMAN			Torn Gregory/Kurt Conlon		
SAMPLER HAMMER	WEIGHT(lbs)	DROP(in)	INSPECTING ENGINEER			Gary L. Gleason	





PROJECT Loews @ Gowanus		PROJECT NO. 1531601									
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. Bl 11 (BBHDD)									
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH LOG	SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
				NUMBER	TYPE	RECOV. IN.	PENETR. RESIST.	BELT	N-VALUE BLOCKS BLDG.		
	Brown/gray SILT, some f. sand, trace clay (10-65)	45		S10	SB	12.5	11 15 15 24		34	PP = No reading PID = 400 ppm	
	Gray/brown f. SAND, some silt, trace m. sand (7-65)	50		S11	SS	15	13 19 22 23		61	PID = 1.2 ppm	
	Gray/brown f.-m. SAND, trace silt (7-65)	55		S12	SS	8	8 15 19 22		35	PID = 2.2 ppm	Hard drilling D=58'-60'
	Brown f.-c. SAND, trace f.-m. gravel and silt (6-65)	60		S13	SS	9	12 17 27 31		44	PID = 0.4 ppm	On/off rig chatter D=60'-65'
	Red brown f. SAND, some silt, trace m.-c. sand and f. gravel (7-65)	65		S14	SS	15	19 20 25 26		45	PID > 8.2 ppm	On/off rig chatter D=65'-70'
	Red brown f.-m. SAND, some f.-m. gravel, trace c. sand and silt (6-65)	70		S15	SS	6	62 35 37 31		102	PID = 3.3 ppm	On/off rig chatter D = 70'-75'
	Red brown f.-c. SAND, trace f.-m. gravel and silt (6-65)	75		S16	SS	7	22 49 25 13		74	PID = 0.4 ppm	On/off rig chatter D=75'-78'
	Red brown f.-m. SAND, trace silt, c. sand, and f. gravel (7-65)	80		S17	SS	8	26 24 29 15		52	PID = 340 ppm	Borehole grouted upon completion
	Boring terminated D=80'	85									
		90									

PROJECT Loews @ Gowanus		PROJECT NO. 1531601																	
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]																	
DRILLING EQUIPMENT Davey Kent DK50RA Track Rig		DATE STARTED 11/24/98	DATE FINISHED 11/25/98																
SIZE AND TYPE OF BIT HW Rock Core and Tri-Cone Roller Bits		NUMBER OF SAMPLES 16	COMPLETION DEPTH 77 ft.																
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH (ft) 13.5	WATER LEVEL (ft.) FIRST ▼	UNDIST. COMPL. ▼																
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Gus Suri/Mike Chizmar	24 HR. 3.8																
SAMPLER HAMMER	WEIGHT (lbs) 140	DROP (in) 30	INSPECTING ENGINEER Gary L. Gleason																
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA																
approx. el 11	5" CONCRETE w/ wire mesh Inferred Miscellaneous FILL (11-65)" Black/brown f.-c. SAND, trace f.-c. gravel/coal and silt (11-65)	5	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S1</td><td>SS</td><td>14</td><td>24 21 14 12</td><td></td><td></td><td>35</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S1	SS	14	24 21 14 12			35	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S1	SS	14	24 21 14 12			35													
	Brown f.-c. SAND, trace f.-m. gravel/coal and silt (11-65)	5	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S2</td><td>SS</td><td>4</td><td>7 5 5</td><td></td><td></td><td>12</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S2	SS	4	7 5 5			12	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S2	SS	4	7 5 5			12													
	Brown/black f.-c. SAND, trace silt, c. gravel/coal, and organics/wood fibers (11-65)	10	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S3</td><td>SS</td><td>11.5</td><td>12 4 5 20</td><td></td><td></td><td>9</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S3	SS	11.5	12 4 5 20			9	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S3	SS	11.5	12 4 5 20			9													
	Brown f.-c. SAND, some silt and clay, trace f.-m. gravel (11-65)	15	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S5/S4</td><td>SS</td><td>16</td><td>1 2 2</td><td></td><td></td><td>4</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S5/S4	SS	16	1 2 2			4	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S5/S4	SS	16	1 2 2			4													
	Brown, gray, and black PEAT, trace silt and clay (11-65)	20	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S6</td><td>SS</td><td>17</td><td>2 1 2 2</td><td></td><td></td><td>3</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S6	SS	17	2 1 2 2			3	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S6	SS	17	2 1 2 2			3													
	Brown f. SAND, some silt, trace clay (8-65)	25	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S7</td><td>SS</td><td>13</td><td>11 12 16 15</td><td></td><td></td><td>28</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S7	SS	13	11 12 16 15			28	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S7	SS	13	11 12 16 15			28													
	Gray/brown f. SAND, trace silt (8-65)	30	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S8</td><td>SS</td><td>14.5</td><td>7 8 8 7</td><td></td><td></td><td>16</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S8	SS	14.5	7 8 8 7			16	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S8	SS	14.5	7 8 8 7			16													
	Brown and gray f.-m. SAND, some silt, trace clay (7-65)	35	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S9</td><td>SS</td><td>17</td><td>4 6 17 20</td><td></td><td></td><td>23</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S9	SS	17	4 6 17 20			23	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S9	SS	17	4 6 17 20			23													
	Gray/brown f.-m. SAND (7-65)	40	<table border="1"> <thead> <tr> <th>NUMBER</th><th>TYPE</th><th>PIECES (in)</th><th>PENETRAT.</th><th>RESIST.</th><th>BLAST</th><th>N-VALUE</th><th>H- SLOWS</th></tr> </thead> <tbody> <tr> <td>S10</td><td>SS</td><td>16.5</td><td>10 17 15 18</td><td></td><td></td><td>32</td><td></td></tr> </tbody> </table>	NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS	S10	SS	16.5	10 17 15 18			32	
NUMBER	TYPE	PIECES (in)	PENETRAT.	RESIST.	BLAST	N-VALUE	H- SLOWS												
S10	SS	16.5	10 17 15 18			32													
	Gray CLAY, trace f. sand and silt (9-65)																		
	Brown f. SAND, trace silt (8-65)																		
REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)																			
<p>"New York City BC Classification numbers in parenthesis Started coring w/ water PID = 16.4 ppm</p> <p>Trace wood and red brick in wash D=6.25'-6.25' PID = 5.5 ppm</p> <p>Rig chatter D=7.25'-6.25' Lost some water D=7.25'-10' Added mud D=10' PID = 11.8 ppm</p> <p>PID = 4.2 ppm PID = 18.3 ppm</p> <p>PID = 5 ppm</p> <p>PID = 20 ppm</p> <p>PID = 30 ppm</p> <p>PP = 0.9-1.4 lsf PID = 11.2 ppm</p> <p>0.5' of Gray CLAY, trace f. sand and silt (9-65) in top of S10 SS sample PID = 550 ppm</p>																			



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LOG OF BORING

LB6.

SHEET 2 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601							
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]							
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
			NUMBER	TYPE	RECOV. (in)	PENETRA- TION RESIST. BLDIN	IN VALUE	BLOWS PER FT	
	Brown SILT, some f. sand, trace clay (10-65)	45	S11	SS	14	16 19 13 14		32	PID = 1.4 ppm
	Gray/black f.-m. SAND, trace silt (7-65)	50	S12	SS	18	20 24 25 22		49	PID = 1.2 ppm
	Inferred COBBLE (6-65)	55		SS	0	162/4"		R*	Rig chatter D=53.75'-55' "Spoon refusal D=55' Rig chatter D=55'-55.25'
	Red brown f. SAND, some f.-c. gravel, trace m.-c. sand and silt (6-65)	60	S13	SS	111	150 56 51 65		109	Minor rig chatter D=58.75' PID = 400 ppm Slow/hard drilling D=62.25'-62.5' On/off rig chatter D=60'-65'
	Red brown f. SAND, some f.-c. gravel, trace m.-c. sand and silt (6-65)	65	S14	SS	6	56 39 26 26		65	PID = 155 ppm On/off rig chatter D=65'-70'
	Red brown f. SAND, some f.-m. gravel, trace m.-c. sand and silt (6-65)	70	S15	SS	13	62 100 93 52		193	Minor on/off rig chatter D=70'-75'
	Red brown f.-c. GRAVEL and f.-c. SAND, trace silt (6-65)	75	S16	SS	14	100 88 77 55		165	PID = 380 ppm Borehole grouted upon completion
	Boring terminated D=77'	80							
		85							
		90							



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LOG OF BORING

LB7

SHEET 1 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601	
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD1]	
DRILLING EQUIPMENT Davey Kent DK50RA Track Rig		DATE STARTED 11/19/98	DATE FINISHED 11/24/98
SIZE AND TYPE OF BIT HW and NQ Rock Cores and Tri-Cone Roller Bit		COMPLETION DEPTH 77 ft.	
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH (ft) 7	NUMBER OF SAMPLES 18	DIST. 1
SAMPLER Standard Split Spoon (SS) or Shelby Tube (ST)	SAMPLER HAMMER WEIGHT (lbs) 140	WATER LEVEL (ft.) V	UNDIST. CCMPL. 24 HR. 6.5
SAMPLER HAMMER WEIGHT (lbs) 140		DRILLING FOREMAN Gus Suri/Mike Chizmar	
SAMPLER HAMMER DROP (in) 30		INSPECTING ENGINEER Gary L. Gleason	
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA
approx. el 11	5" CONCRETE w/ wire mesh 5" CONCRETE Inferred miscellaneous FILL (11-65) Gray/black f.-o. SAND, some silt (11-65) Black SILT/PETROLEUM LIKE MATERIAL, some c. sand, and white cement fragments, trace f.-m. sand and clay (11-65) Piece of STEEL Inferred miscellaneous FILL (11-65) 0.5" STEEL CONCRETE Petroleum like material treated WOOD (11-65) Inferred WOOD (11-65) Inferred Brown PEAT, some silt (11-65) Inferred Brown PEAT, some silt (11-65) Brown PEAT, some silt (11-65)	SYMBOL LOG	NUMBER TYPE REC'D. (ft) PENETR. RESIST. BLDG. N VALUE BLOWS DENS.
0.0	S1 SS 7 28 47 54 20	S1 SS 7 2 2 1 50/1*	101
0.0	S2 SS 2 4 2 1 50/1*	S2 SS 2 4 2 1 50/1*	3
0.0	S3 SS 0 WOR WOR WOR WOR	S3 SS 0 WOR WOR WOR WOR	
0.0	S4 SS 0 WOR WOR WOR WOR	S4 SS 0 WOR WOR WOR WOR	
0.0	S5 SS 19 1 3 4	S5 SS 19 1 3 4	6
0.0	S6 ST 24 PUSH PUSH PUSH PUSH	S6 ST 24 PUSH PUSH PUSH PUSH	
0.0	S7 SS 11 34 42 33 40	S7 SS 11 34 42 33 40	75
0.0	S8 SS 7 18 19 11 12	S8 SS 7 18 19 11 12	30
0.0	S9 SS 18 4 3 2 1	S9 SS 18 4 3 2 1	5
0.0	S10 SS 17 WOH 2 2 4	S10 SS 17 WOH 2 2 4	4
0.0	S11 SS 17 WOH 2 2 4	S11 SS 17 WOH 2 2 4	
REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)		"New York City BC Classification numbers in parenthesis Started coring w/ water Lost some water D = 1.5' PID = 400 ppm Petroleum like material odor On/off rig chatter D = 1.5' - 4.5' Petroleum like material in wash D = 4.75' Spoon refusal 50/1" w/ bouncing D = 6' PID = 480 ppm A 16" x 4" x 1/4" piece of vertical steel on a 1/2" thick base plate D = 7 w/ 2" wide horizontal pieces of steel, which were cut, at the top inside and bottom outside D = 6' - 7' Lost some water D = 8' - 9.25' Added mud D = 9.25' Drilled through WOOD and lost circulation D = 9.75' WOR: Weight of rods WOR went from D = 10' - 15'	
WOR: Weight of hammer: Sample S4 S9 tip material PID = 590 ppm WOR went from D = 15' - 17.5'		WOR: Weight of hammer: Sample S4 S9 tip material PID = 590 ppm WOR went from D = 15' - 17.5'	
Visible petroleum like material w/ odor Pushing became more difficult D = 19.25' Added mud D = 20' PID = 920 ppm		Visible petroleum like material w/ odor Pushing became more difficult D = 19.25' Added mud D = 20' PID = 920 ppm	
PID = 700 ppm Trace wood fibers in wash D = 27 - 30.5' Tight fit for bit D = 27 - 30.5'		PID = 700 ppm Trace wood fibers in wash D = 27 - 30.5' Tight fit for bit D = 27 - 30.5'	
1" of WOOD FIBERS, trace f.-m. sand w/ PID = 170 ppm in top of SS PID = 750 ppm Brown SILT, trace clay and f. sand in SS tip D = 32.5'		1" of WOOD FIBERS, trace f.-m. sand w/ PID = 170 ppm in top of SS PID = 750 ppm Brown SILT, trace clay and f. sand in SS tip D = 32.5'	
PP = 0.1 - 0.3 tsf PID = 640 ppm PP = 0.6 - 0.9 tsf PID = 320 ppm		PP = 0.1 - 0.3 tsf PID = 640 ppm PP = 0.6 - 0.9 tsf PID = 320 ppm	
PP = 0.4 - 0.65 tsf PID > 2000 ppm		PP = 0.4 - 0.65 tsf PID > 2000 ppm	



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LOG OF BORING

LB7

SHEET 2 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601		
LOCATION Brooklyn, NY		ELEVATION AND DATUM approx. el 11 [BBHDD]		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown CLAY, some silt, trace f. sand (9-65)	45	S12 SS 13 8 4 4 4	PP = 0.6 - 0.85 lbf PID = 170 ppm
	Brown f. SAND, trace silt (8-65)	50	S13 SS 14 14 10 91 23 19	PID = 550 ppm Rig chatter D = 52.25' - 53'
	Brown f.-c. SAND, trace silt and f.-m. gravel (6-65)	55	S14 SS 10.5 20 20 24 24	PID = 710 ppm
	Red brown f.-c. SAND, trace silt and f.-m. gravel (6-65)	60	S15 SS 8 10 36 31 22	Added mud D = 57' - 58' Rig chatter D = 57.5 - 58'
	Red brown f.-c. SAND, some f.-m. gravel, trace silt (6-65)	65	S16 SS 8 28 42 22 15	PID = 40 ppm
	Red brown f.-c. SAND, some f.-m. gravel, trace silt (6-65)	70	S17 SS 7.5 45 26 22 24	On/off rig chatter D = 60' - 65'
	Red brown f.-c. SAND, some f.-m. gravel, trace silt (6-65)	75	S18 SS 8 50 28 22 25	PID = 640 ppm
	Boring terminated D = 77'	80		On/off rig chatter D = 65' - 70'
		85		PID = 20 ppm
		90		On/off rig chatter D = 70' - 75'
				PID = 540 ppm
				Borehole grouted upon completion



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LOG OF BORING

LB8

SHEET 1 OF 2

PROJECT Loews @ Gowanus		PROJECT NO. 1531601								
LOCATION Brooklyn, NY	ELEVATION AND DATUM approx. el 11 JBBHDDI									
DRILLING EQUIPMENT Davey Kent DK50RA Track Rig	DATE STARTED 11/18/98	DATE FINISHED 11/19/98	COMPLETION DEPTH 55 ft.							
SIZE AND TYPE OF BIT HW and NQ Rock Cores and Tri-Cone Roller Bits	NUMBER OF SAMPLES 14	DIST. ----	UNDIST. ----							
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH(m) 19.5	WATER LEVEL (ft.) V	CORE COMPL. 24 HR. V							
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)	DRILLING FOREMAN Gus Surl/Mike Chizmar									
SAMPLER HAMMER	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason							
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER S1	TYPE SS	RECOV. (g)	PENETR. RESIST BLKES	N VALUE BLOW/S		
0.0 el 11	5" CONCRETE w/ wire mesh CONCRETE DEBRIS and Inferred miscellaneous FILL (11-65)* Red BRICK, some gray c. sand, trace f. gravel, concrete, tan brick, gray f.-m. sand, and white tile (11-65)			S1	SS	4.5	12 9 10 24	19	*New York City BC Classification numbers in parenthesis Started coring w/ water Lost some water D = 2' PID = 82 ppm	
0.0	Red BRICK, some c. sand, trace f.-m. sand and gravel (11-65)		5	S2	SS	1	25/5'	R*	Lost water D = 2' - 5.5' *Spoon refusal 28/5' w/ bouncing D = 4.5' Hard/slow drilling w/ rig chatter D = 4.5' - 5'	
0.0	CONCRETE Inferred reinforced CONCRETE Gray c. SAND, trace coal, concrete, red brick, gray f.-m. sand, f.-m. gravel, and glass (11-65)		10	S3	SS	3	8 7 4	11	PID = 135 ppm	
	Gray c. SAND, trace coal, red brick, gray f.-m. sand, silt, and f. gravel (11-65) Gray c. SAND, some coal, trace red brick, gray f.-m. sand, silt, and f. gravel (11-65)		15	S4	SS	1	5 3 2 4	5	PID = 15 ppm	
	Brown PEAT (11-65)		20	S5	SS	9	2 3 2 3	5	PID = 260 ppm	
	Brown f. sandy SILT, trace clay (10-65)		25	S6	SS	6	4 4 6 5	10	PID = 52 ppm	
	Brown f.-m. SAND, trace silt (7-65)		30	S7	SS	6	29 31 33 28	64	Added mud D = 20'	
	Gray/brown SILT, some f. sand, trace m. sand and clay (10-65)		35	S8	SS	5	WOB 5 8 5	13	PID = 30 ppm	
	Brown/gray SILT, some clay, trace f. sand (10-65)		40	S10 SS	SS	17	4 3 2 6	6	PID = 11 ppm	
	Brown/gray silty CLAY, trace f. sand (9-65)			S11	SS	19	2 4 2 4	6	WOH: Weight of hammer Over drilled to D = 30'-5" resulting in WOH blow count PID = 38 ppm	
	Brown/gray silty CLAY, trace f. sand (9-65)								PP = No reading PID = 420 ppm PP = 0.4 lbf PID = 340 ppm	
									PP = 0.3 - 0.4 lbf PID = 108 ppm	



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LOG OF BORING

LB8

SHEET

2

OF

2

PROJECT		PROJECT NO.		
Loews @ Gowanus		1531601		
LOCATION		ELEVATION AND DATUM		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS
	Brown/gray silty CLAY, trace f. sand (9-65)	45	S12 SS 19 WOH 1	PP = No reading - 0.2 tsf PID = 810 ppm
	Brown/gray silty CLAY, trace f. sand (9-65)	50	S13 SS 17 WOH 9 17	PP = 0.2 - 0.7 tsf PID = 400 ppm
	Brown f.-m. SAND, trace gray silt and clay (7-65)	55	S14 SS 11 14 14 13 15	PID = 520 ppm Borehole grouted upon completion
	Boring terminated D = 55'	60		
		65		
		70		
		75		
		80		
		85		
		90		


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LOG OF BORING LB9SHEET 1 OF 2

PROJECT		PROJECT NO.							
Loews @ Gowanus		1531601							
LOCATION		ELEVATION AND DATUM approx. el 11 [BBHDD]							
DRILLING EQUIPMENT		DATE STARTED 11/16/98		DATE FINISHED 11/18/98		COMPLETION DEPTH 57 ft.			
SIZE AND TYPE OF BIT 4 7/8" (0' - 5') and 3 7/8" Tri-Cone Roller Bits		NUMBER OF SAMPLES		DIST. 14		UNDIST.			
CASING DIAMETER (in) 4 1/2" OD 4" ID		CASING DEPTH(h) 13.5		WATER LEVEL FIRST (h.)		COMPL. 4.6			
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Gus Suri/Mike Chizmar							
SAMPLER HAMMER	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason						
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA				REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST. BULB		N-VALUE BLOWS PER
pprox. el 11	4" CONCRETE Inferred DENSE GRADED AGGREGATE CONCRETE							*New York City BC Classification numbers in parenthesis Started drilling w/ water Lost some water D=2.5' D=0'-4.5': Slow/hard drilling and wash water Gray cement/concrete color NX Rock Core Barrel used D=4'-4.5'; 6" Concrete core recovered Lost some water 0'-4.5' Attempted a 2nd SS to acquire some form a sample; Only gray sand wash was recovered, Sample S1 PID = 2 ppm Overdrove SS 7'-10' to aid in recovery Sample S2 SS to material	
0.0	Inferred miscellaneous FILL (11-65)* Inferred Gray c. SAND/COAL, trace silt, f.-m. sand, clay, f. gravel, and organics (11-65) Gray c. SAND/COAL, trace f.-m. sand, silt, and f. gravel (11-65)			S1 S2 S3	SS SS SS	0 0 4	5 7 5 4 3 2 2	12 4	Added mud D=15' PID = 0 ppm PID = 0 ppm
	Gray silty, organic/rooty CLAY (11-65)			S4	SS	16.5	1 2 1	5	Overdrove SS D=(0'-13') to aid in recovery PID = 3.3 ppm
	Brown/gray PEAT (11-65)								
	Brown SILT, trace clay and f. sand (10-65)			S5 S6	SS SS	10.5	5 7 12 10	19	PID = 38 ppm
	Inferred Brown/gray f.-m. SAND, trace silt (7-65)			S7	SS	0	27 32 27 31 24 26 39	59	PID = 0 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)			S8	SS	7	11 11 9 10	20	PID = 0 ppm
	Brown f.-m. SAND, trace silt and clay			S9	SS	17.5	3 4 5 6	10	PID = 0.2 ppm
	Gray/brown silty CLAY, trace f.-m. sand (9-65)			S10	SS	10.5	16 15 10 10	20	PID = 0 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)								



LOG OF BORING LB9

SHEET 2 OF 2

PROJECT		PROJECT NO.									
Loews @ Gowanus		1531601									
LOCATION		ELEVATION AND DATUM									
Brooklyn, NY		approx. el 11 [BBHDDI]									
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	REC'D. TEST	PENETRAT. TEST	RESIST. TEST	N-VALUE	BLOWS TEST	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown/gray SILT, some f. sand, trace clay (10-65)		45	S11	SS	19	7 8 9 10	12			PID = 0 ppm
	Brown/gray f. sandy SILT, trace f. gravel (10-65)		50	S12	SS	15	15 16 15 17	31			PID = 0 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)		55	S13	SS	15	17 19 23 22	42			PID = 0 ppm
	Brown f.-m. SAND, trace silt (7-65)		60	S14	SS	15					Borehole grouted upon completion
	Boring terminated D=57'		65								
			70								
			75								
			80								
			85								
			90								



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LOG OF BORING

RB1

SHEET 1 OF 2

PROJECT Gowanus Development			PROJECT NO. 1503701						
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx. el. 7.4 [BBHDD]						
DRILLING EQUIPMENT Mobile B61 Truck Mounted Rig			DATE STARTED 10/20/98		DATE FINISHED 10/20/98		COMPLETION DEPTH 80 ft.		
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES 16		DIST. 16		UNDIST.	CORE	
CASING DIAMETER (in) 4 1/2" OD 4" ID		CASING DEPTH(ft) 18	WATER LEVEL (ft.) 8		FIRST ▼	COMPL. ▼	24 HR.	▼	
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)			DRILLING FOREMAN Ernest Thomas/Desmond Williams						
SAMPLER HAMMER		WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason					
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (%)	PENETR. BL/6in	N-VALUE BL/6in	
approx. el. 7.4	Surficial ASPHALT			S1	SS	14	4 3 2	6	* New York City BC Classification numbers In parenthesis Added water D = 0'
	Brown f.-c. SAND, trace silt and red brick (11-65)*			S2	SS	4	1 6 2	8	PID = 0 ppm
	Brown f.-c. SAND, trace f.-m. gravel/coal, silt, and red brick (11-65)			S3	SS	13	8 5 3 2	8	PID = 196 ppm, visible "Copper" brown petroleum like material Trace wood in wash
	Brown f.-c. SAND, trace silt, f.-m gravel, and wood (11-65)			S4	SS	0	6 2 1	4	PID = 290 ppm, visible petroleum like material Added mud D = 15'
	Inferred WOOD FIBERS and brown clayey SILT, trace f. sand (11-65)			S5	SS	9	21 29 38 41	67	PID = 25 ppm Sample S4 spoon tip material
	WOOD FIBERS, trace brown silt and f. sand (11-65)			S6	SS	16	8 10 11 12	21	PID = 52 ppm Very slow/hard drilling and wood fibers in wash D = 23' - 28'
	Green brown SILT, trace clay, wood fibers, and f.-m. sand (11-65)			S7	SS	19	4 7 15 13	22	PID = 9.6 ppm
	Brown/gray f.-m SAND, some silt and clay (7-65)			S8	SS	14.5	10 13 10 10	23	PID = 168 ppm, slightly visible petroleum like material
Brown silty f. SAND (8-65)								PID = 20 ppm	



Engineering and Environmental Services

LOG OF BORING

RB1

SHEET 2 OF 2

PROJECT		PROJECT NO.		
Gowanus Development		1503701		
LOCATION		ELEVATION AND DATUM		Approx. el. 7.4 [BBHDD]
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Gray/brown f.-m. SAND (7-65)		S9 SS 13 9 12 15 16 21	PID = 410 ppm, petroleum like material very visible
	Gray/brown f.-m. SAND, trace silt (8-65)	45	S10 SS 15 12 13 15 18 20	PID = 188 ppm, visible petroleum like material
	Brown f.-m. SAND (7-65)	50	S11 SS 12 6 9 11 11	PID = 7.1 ppm, visible petroleum like material
	Brown f.-m. SAND, trace silt (7-65)	55	S12 SS 16 11 14 16 18	PID = 330 ppm, very visible petroleum like material
	Red/gray f.-c. GRAVEL and f.-c. SAND, trace silt (6-65)	60	S13 SS 4 77 62 22 18	Rig chatter D = 62' Slow/hard drilling D = 62' - 63' PID = 25 ppm Minor rig chatter D = 63' to 68'
	Inferred Gray f.-c. GRAVEL, some red/brown silty clay and f.-c. sand (6-65)	65	S14 SS 0 21 28 22 26	Petroleum like material floating on the surface of wash tub PID = 19.8 ppm Sample S14 spoon tip material
	Red brown f.-c. SAND, trace silt, f.-m. gravel, and clay (6-65)	70	S15 SS 12 33 27 19 19	PID = 3 ppm Rig chatter D = 77'
	Red brown f.-c. SAND, some clay, trace silt and f.-m. gravel (6-65)	75	S16 SS 9.5 14 12 14 12	PID = 5.1 ppm
	Boring terminated D = 80'	80		Borehole grouted upon completion
		85		
		90		



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LOG OF BORING

RB2

SHEET 1 OF 2

PROJECT Gowanus Development		PROJECT NO. 1503701							
LOCATION Brooklyn, NY		ELEVATION AND DATUM Approx. el. 9.0 [BBHDD]							
DRILLING EQUIPMENT CME 75 Truck Mounted Rig		DATE STARTED 10/19/98	DATE FINISHED 10/20/98						
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits		NUMBER OF SAMPLES 16	COMPLETION DEPTH 85 ft.						
CASING DIAMETER (in) CASING DEPTH (ft) 4 1/2" OD 4" ID 14		WATER LEVEL (ft.) ▽	FIRST 10						
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Tommy Gregorey/Chris Mitchell							
SAMPLER HAMMER	WEIGHT (lbs) 140	DROP (in) 30	INSPECTING ENGINEER Gary L. Gleason						
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. RESIST BLDG	N-VALUE BLOWS PER FT	
approx. el. 9.0	Surficial ASPHALT								"New York City BC Classification numbers in parenthesis Added water D = 2'
	Brown f.-c. GRAVEL, trace f.-c. sand, silt, and red brick (11-65)*	▽	5	S1 SS	4	4 4 5 5	9	PID = 0.1 ppm	
	Brown/black f.-m. SAND, trace silt, coarse sand, and f. gravel/coal (11-65)	▽	10	S2 SS	3.5	4 2 5 2	7	PID = 14 ppm	
	Gray silty CLAY, trace roots and shell (11-65)	▽	15	S3 SS	24	2 1 1 1	2	PID = 0.4 ppm	
	Gray silty CLAY, some roots/wood (11-65)	▽	20	S4 SS	24	WOH 2 1	2	WOH: Weight of hammer Added mud D = 20' PID = 0.2 ppm	
	Brown f.-m. SAND, trace silt and m. gravel (7-65)	▽	25	S5 SS	13	9 14 16 19	32	PID = 17.2 ppm, visible petroleum like material sheen	
	Brown f.-m. SAND (7-65)	▽	30	S6 SS	24	19 33 38 30	67	PID = 250 ppm, visible petroleum like material	
	Brown silty f. SAND (8-65)	▽	35	S7 SS	17	10 16 13 14	29	PID = 40 ppm, visible petroleum like material	
	Brown SILT, trace f. sand and clay (10-65)	▽	40	S8 SS	15	20 17 17 18	34	PID = 32 ppm	



Engineering and Environmental Services

LOG OF BORING

RB2

SHEET 2 OF 2

PROJECT		PROJECT NO.			
Gowanus Development		1503701			
LOCATION		ELEVATION AND DATUM			
Brooklyn, NY		Approx. el. 9.0 [BBHDD]			
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
	Gray/brown f.-m. SAND, trace silt (7-65)	45	S9 SS 17 7 6 12 14	18	PID = 8 ppm, visible petroleum like material Minor rig chatter
	Gray/brown f.-m. SAND (7-65)	50	S10 SS 20 12 13 13 15	26	PID = 20 ppm, slightly visible petroleum like material
	Gray/brown f.-m. SAND (7-65)	55	S11 SS 20 9 7 8 10	15	PID = 10.8 ppm
	Brown f.-m. SAND, some silt, trace clay (7-65)	60	S12 SS 18 9 12 10 11	22	PID = 5.9 ppm
	Red brown f.-c. sandy SILT, some clay, trace f. gravel (10-65)	65	S13 SS 15 31 16 19 27	35	Rig chatter D = 63.5' - 65' "Copper" brown petroleum like material floating on the surface of wash tub PID = 6.2 ppm
	Red brown f.-m. SAND,trace silt, clay, and m. gravel (7-65)	70	S14 SS 14 24 29 27 21	56	Major rig chatter D = 65' - 70'
	Red brown f.-m. SAND, trace silt, clay, and f. gravel (7-65)	75	S15 SS 14 23 22 21 23	43	Minor rig chatter D = 70' - 75'
	Red brown f.-m. SAND, trace silt, clay, and c. sand (7-65)	80	S16 SS 43 30 39 38	69	PID = 43 ppm
	Boring terminated D = 85'	85			Rig chatter D = 75' - 83'
		90			PID = 6 ppm
					Borehole grouted upon completion



Engineering and Environmental Services

LOG OF BORING

RB3A

SHEET 1 OF 1

PROJECT Gowanus Development			PROJECT NO. 1503701							
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx el. 10.1 [BBHDD]							
DRILLING EQUIPMENT Mobile B61 Truck Mounted Rig			DATE STARTED 10/19/98		DATE FINISHED 10/19/98		COMPLETION DEPTH 1 ft.			
SIZE AND TYPE OF BIT 4 7/8" Tri-Cone Roller Bits w/water			NUMBER OF SAMPLES -----		DIST. -----		UNDIST. -----			
CASING DIAMETER (in) -----		CASING DEPTH(ft) -----		WATER LEVEL (ft.) -----		FIRST V -----		CORE V -----		
SAMPLER -----			DRILLING FOREMAN Ernest Thomas/Desmond Williams							
SAMPLER HAMMER		WEIGHT(lbs) -----	DROP(in) -----	INSPECTING ENGINEER Gary L. Gleason						
ELEV. (ft)	SAMPLE DESCRIPTION			SYMBOL LOG	DEPTH SCALE	SAMPLE DATA				REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
						NUMBER	TYPE	RECOV. (in)	PENETR. RESIST BL/SIN	
approx el. 10.1	2.5" ASPHALT 6.5" Black f.-c. SAND and GRAVEL (11-65)* 3" COBBLE/BOULDER (6-65)									*New York City BC Classification numbers In parenthesis Added water D = 0.5' Hard/slow drilling D = 0.75' - 1' Drill equipment refusal D = 1'
Boring terminated D = 1'										
					5					
					10					
					15					
					20					
					25					
					30					
					35					
					40					



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PROJECT Gowanus Development			PROJECT NO. 1503701						
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx. el. 10.1 [BBHDD]						
DRILLING EQUIPMENT Mobile B61 Truck Mounted Rig			DATE STARTED 10/19/98		DATE FINISHED 10/19/98		COMPLETION DEPTH 80 ft.		
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES	DIST. 13	UNDIST. -----	CORE -----			
CASING DIAMETER (in) 4 1/2" OD 4" ID			CASING DEPTH(ft) 13	WATER LEVEL (ft.)	FIRST ▽ 8	COMPL. ▽ -----	24 HR. ▽ -----		
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)			DRILLING FOREMAN Ernest Thomas/Desmond Williams						
SAMPLER HAMMER	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason						
ELEV. (ft)	SAMPLE DESCRIPTION			DEPTH SCALE	SAMPLE DATA			REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
el. 10.1	Surficial ASPAHLT				S1	SS	13	10 6 9 --- 15	
	Black f.-c. SAND, trace silt, f. gravel, and red brick (11-65)*				SS	0	2 1 1 1	2	
	Inferred miscellaneous FILL (11-65)				SS	10	2 2 2 1		
	Gray/brown organic SILT/PEAT, trace f. gravel (11-65)				SS	10	2 2 2 1	4	
	Gray silty CLAY, trace shell and organics/root (11-65)				S3	SS	21	WOH WOH WOH WOH	
	Gray silty CLAY, trace shell and organics (11-65)				S4	SS	15	2 2 2 2	
	Brown silty f. SAND, trace clay (8-65)				S5	SS	15	3 4 7 8 11	
	Gray f.-m. SAND (7-65)				S6	SS	20	13 18 18 15 36	
	Brown/gray f. sandy SILT, trace clay (10-65)				S7	SS	15	9 12 9 16 21	



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SHEET 1 OF 2

PROJECT		PROJECT NO.							
Gowanus Development		1503701							
LOCATION		ELEVATION AND DATUM							
Brooklyn, NY		Approx. el. 10.4 [BBHDD1]							
DRILLING EQUIPMENT		DATE STARTED 10/16/98	DATE FINISHED 10/19/98						
CME 75 Truck Mounted Rig		COMPLETION DEPTH 73 ft.							
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits		NUMBER OF SAMPLES 14	UNDIST. -----						
CASING DIAMETER (in) 4 1/2" OD 4" ID		WATER LEVEL (ft.) 10	COMPL. -----						
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Tommy Gregorey/Chris Mitchell							
SAMPLER HAMMER	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason						
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA					REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	RECOV. (in)	PENETR. BL/in	RESIST. BL/in	
el. 10.4	Surficial ASPHALT			S1	SS	5	2 8 6 8	14	"New York City BC Classification numbers in parenthesis Black drill water w/ petroleum like material odor D = 1.5' - 5'
	Black/brown f.-c. SAND, some silt, trace f. gravel/coal, wood/orgamics, and red brick (11-65)*			S2	SS	TRACE	1 WOH WOH	1	PID = 0.2 ppm, petroleum like material odor
	Black and white f. GRAVEL/COAL, trace m.-c. sand (11-65)			S3	SS	TRACE	1 2 1 1	3	WOH: Weight of hammer PID = 3 ppm, petroleum like material odor Over drove spoon to aid in Sample recovery
	Black and white f. GRAVEL/COAL, trace m.-c. sand and glass (11-65)			S4	SS	14	1 WOH WOH WOH	WOH	PID = 4 ppm, petroleum like material odor Added mud D = 15'
	Gray silty CLAY, trace shell and f. gravel (11-65)			S5	SS	8	1 WOH WOH WOH	WOH	PID = 0.4 ppm, petroleum like material odor
	Gray silty CLAY, trace shell (11-65)			S6	SS	22	9 12 12 9	24	PID = 7.2 ppm, petroleum like material odor
	Gray SILT, trace clay, f.-m. sand, f.-m. gravel/coal, and shell (10-65)			S7	SS	16	22 23 22 13	45	PID = 8 ppm, slight petroleum like material odor
	Brown f.-m. SAND (7-65)			S8	SS	19	20 15 15 20	30	PID = 190 ppm, visible petroleum like material w/ odor
Brown f.-m. SAND, trace silt and coal (7-65)								PID = 2.5 ppm, petroleum like material	

PROJECT Gowanus Development		PROJECT NO. 1503701		
LOCATION Brooklyn, NY		ELEVATION AND DATUM Approx. el. 10.4 [BBHDD]		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown f. SAND, trace silt (8-65)	45	S9 SS 15 16 14 18 16 32	PID = 5 ppm, petroleum like material odor Added mud D = 46'
	Brown f. SAND, trace silt (8-65)	50	S10 SS 12 18 20 26 28 46	PID = 1.6 ppm, petroleum like material odor
	Gray f.-m. SAND (7-65)	55	S11 SS 24 17 14 15 21 29	PID = 1 ppm, petroleum like material odor
	Brown f.-c. SAND (7-65)	60	S12 SS 13 29 32 25 21 57	PID = 9 ppm, petroleum like material odor
	Gray/brown f.-c. SAND, trace f.-m. gravel (6-65)	65	S13 SS 13 28 41 59 63 100	PID = 0.6 ppm, slight petroleum like material odor Rig chatter D = 68.5' - 68.5'
	Red brown SILT, some f. sand, trace clay (10-65)	70	S14 SS 10 30 37 47 50 84	Rig chatter D = 70' - 73' PID = 0.9 ppm, slight petroleum like material odor Very hard/slow drilling D = 72' - 73' Drilling equipment refusal D = 73'
	Red brown f.-c. SAND, trace silt, f.-m. gravel, and clay (6-65)	75		Bore hole grouted upon completion
	Boring terminated D = 73'	80		
		85		
		90		



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PROJECT Gowanus Development			PROJECT NO. 1503701								
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx. el. 10.6 [BBHDD]								
DRILLING EQUIPMENT Mobile B61 Truck Mounted Rig			DATE STARTED 10/15/98		DATE FINISHED 10/16/98		COMPLETION DEPTH 79.5 ft.				
SIZE AND TYPE OF BIT 4 7/8" (0'-1') and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES	DIST.	UNDIST.	CORE					
CASING DIAMETER (in) 4 1/2" OD 4" ID		CASING DEPTH(ft) 13	WATER LEVEL (ft.)	FIRST ▽	COMPL. ▽	24 HR. ▽	---				
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)			DRILLING FOREMAN Ernest Thomas/Desmond Williams								
SAMPLER HAMMER		WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason							
ELEV. (ft)	SAMPLE DESCRIPTION		SYMBOL LOG	DEPTH SCALE	SAMPLE DATA				REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)		
					NUMBER	TYPE	REC'D. (in)	PENETR. RESIST. BLIGH			
el. 10.6	Surficial ASPHALT				S1	SS	10	13 14 4 3	18	*New York City BC Classification numbers in parenthesis Added water D = 0.5' Rig chatter D = 1' Petroleum like material/odor and color in drill water D = 1' to 3' PID = 6 ppm, petroleum like material odor	
	Black/gray f.-c. SAND, some f.-c. gravel/coal, trace silt and red brick (11-65)*				S2	SS	0	2 1	WOH 1	1	Trace wood in wash WOH: Weight of hammer
	Inferred Black/gray f.-c. GRAVEL, trace f.-c. sand, silt, and metal (11-65)				S3	SS	17	2 2 2		4	PID = 3 ppm, petroleum like material odor Sample S2 spoon tip material
	Gray silty CLAY, some woody roots, trace shell (11-65)				S4	SS	14	WOR WOR WOR WOR			PID = 1 ppm, petroleum like material odor
	Gray silty CLAY, trace organics/root (11-65)				S5	SS	18	5 8 12 13		20	WOR: Weight of rods
	Brown f. SAND, trace silt and wood (8-65)				S6	SS	18	13 14 10 6		24	PID = 0.2 ppm, petroleum like material odor
	Brown/gray f.-c. SAND (7-65)				S7	SS	13	9 18 21 20		39	PID = 6.5 ppm, petroleum like material odor
	Gray/brown f. SAND (8-65)				S8	SS	17	11 14 8 13		22	PID = 4 ppm, visible petroleum like material and odor
	Brown/gray f.-m. SAND (7-65)										PID = 13 ppm, petroleum like material odor





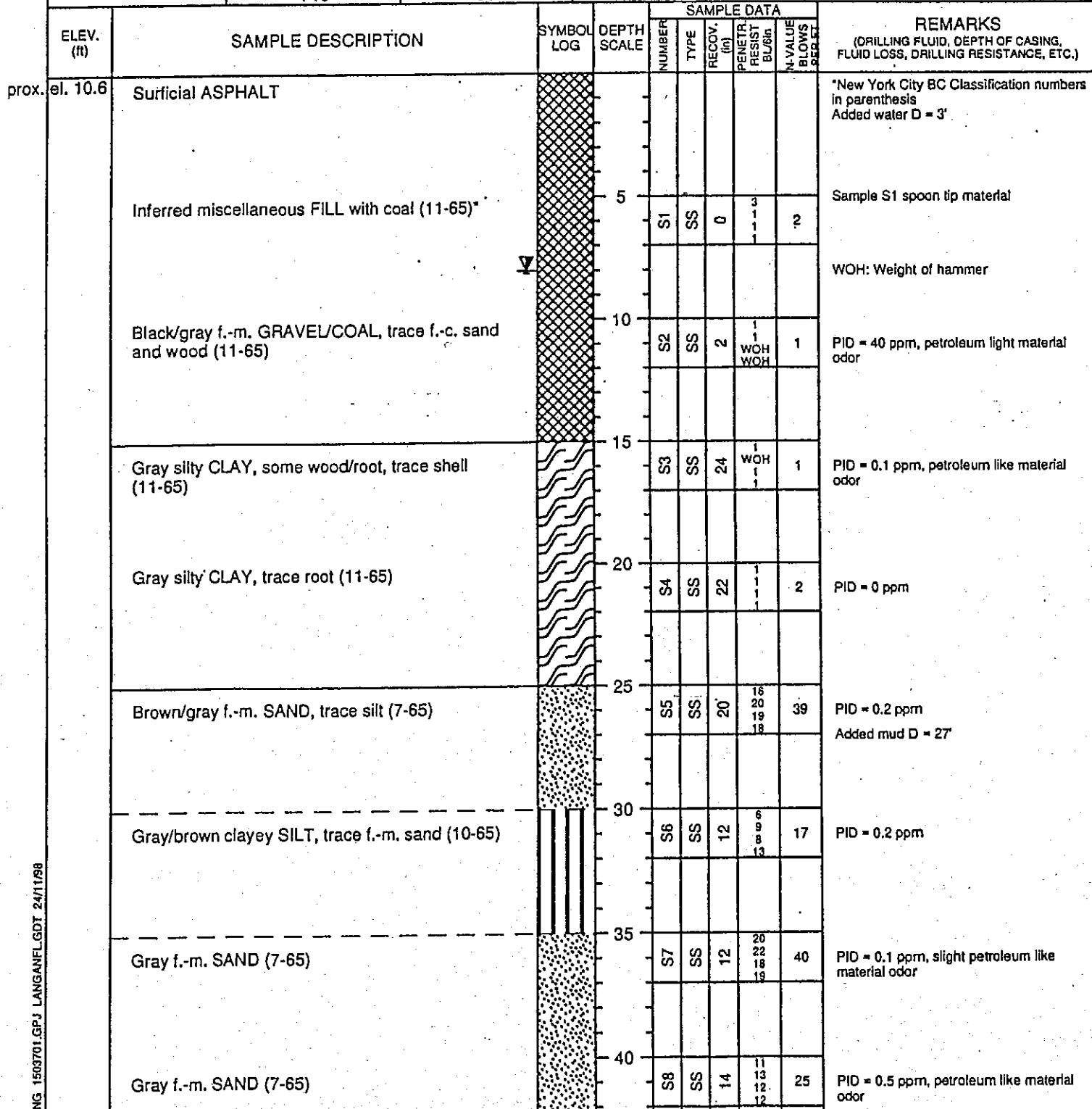
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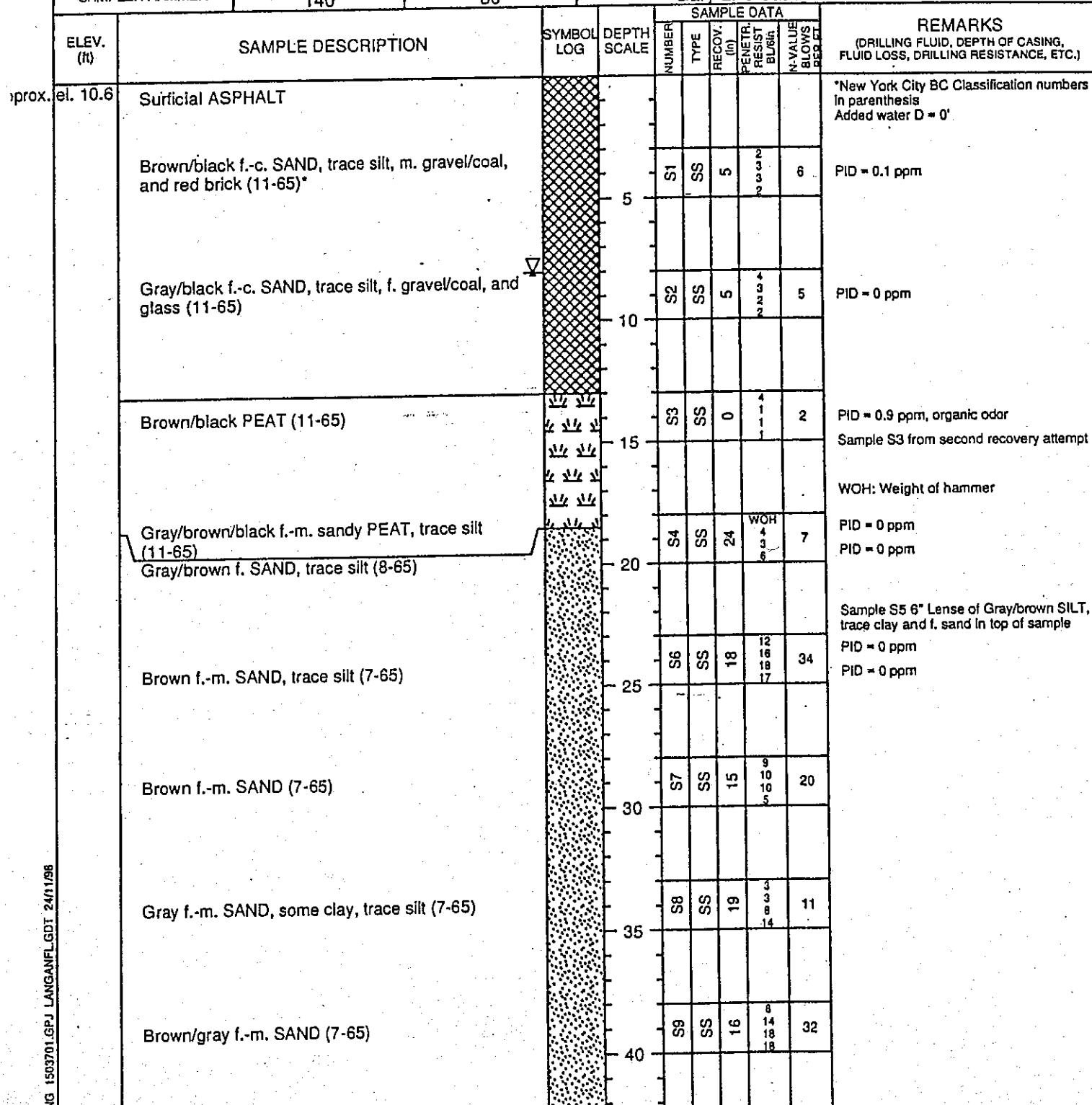
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PROJECT Gowanus Development		PROJECT NO. 1503701	
LOCATION Brooklyn, NY		ELEVATION AND DATUM Approx. el. 10.6 [BBHDD]	
DRILLING EQUIPMENT CME 75 Truck Mounted Rig		DATE STARTED 10/15/98	DATE FINISHED 10/16/98
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits		NUMBER OF SAMPLES 16	COMPLETION DEPTH 82 ft.
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH(ft) -----	WATER LEVEL (ft.) -----	FIRST COMPL. 24 HR. 8
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		DRILLING FOREMAN Robert Danielson/Tommy Gregorey/Chris Mitchell	
SAMPLER HAMMER	WEIGHT(lbs) 140	DROP(in) 30	INSPECTING ENGINEER Gary L. Gleason



PROJECT		PROJECT NO.		
Gowanus Development		1503701		
LOCATION		ELEVATION AND DATUM		
Brooklyn, NY		Approx. el. 10.6 [BBHDD]		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Gray/brown f.-m. SAND, trace silt (7-65)	45	S9 SS 14 12 8 7	PID = 0.2 ppm, slight petroleum like material odor
	Brown f. SAND (8-65)	50	S10 SS 15 12 15 25 27	PID = 0.4 ppm, petroleum like material odor
	Brown f.-m. SAND, trace silt (8-65)	55	S11 SS 18 18 18 30 34 41	PID = 0.2 ppm
	Brown SILT, trace f. sand and clay (10-65)	60	S12 SS 15 25 34 31 44	PID = 0.8 ppm, petroleum like material odor
	Red brown c.-f. SAND, some f.-c. gravel, trace silt and clay (6-65)	65	S13 SS 12 82 64 50 54	Rig chatter D = 63.5' PID = 0.6 ppm Rig chatter D = 65' - 70'
	Red brown silty f.-m. SAND, trace f.-m. gravel and clay (6-65)	70	S14 SS 8 34 50 100/5°	PID = 0 ppm Spoon refusal D = 71.5' Rig chatter and slow drilling D = 70' - 75'
	Red brown f.-c. SAND and GRAVEL, trace silt and clay (6-65)	75	S15 SS 3 100/3°	PID = 0.7 ppm Major rig chatter Slow drilling
	Red brown fine GRAVEL and f.-c. SAND, some silt, trace clay (6-65)	80	S16 SS 7 38 72 100	PID = 0.6 ppm, slight petroleum like material odor
	Boring terminated D = 82'	85		Borehole grouted upon completion
		90		

PROJECT	Gowanus Development			PROJECT NO.	1503701		
LOCATION	Brooklyn, NY			ELEVATION AND DATUM	Approx. el. 10.6 [BBHDD]		
DRILLING EQUIPMENT	Mobile B61 Truck Mounted Rig			DATE STARTED	10/15/98	DATE FINISHED	10/15/98
SIZE AND TYPE OF BIT	4 7/8" (0'-3") and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES	17	UNDIST.	CORE
CASING DIAMETER (in)	4 1/2" OD	4" ID	CASING DEPTH(ft)	WATER LEVEL (ft.)	FIRST ▽	COMPL ▽	24 HR. ▽
SAMPLER	2" OD 1 3/4" ID Split Spoon			DRILLING FOREMAN	Ernest Thomas/Desmond Williams		
SAMPLER HAMMER	WEIGHT(lbs)	140	DROP(in)	30	INSPECTING ENGINEER	Gary L. Gleason	





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PROJECT		PROJECT NO.		
Gowanus Development		1503701		
LOCATION		ELEVATION AND DATUM		
Brooklyn, NY		Approx. el. 10.6 [BBHDD]		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Gray f.-m. SAND (7-65)		S10 SS 16 12 14 19 16	
	Gray/brown f.-m. SAND, trace silt (7-65)	-45	S11 SS 24 10 9 7 6	16
	Brown/gray f.-m. SAND, trace silt (7-65)	-50	S12 SS 16 17 21 27 30	48
	Brown/gray f.-c. SAND, trace f.-m. gravel and silt (6-65)	-55	S13 SS 15 27 40 31 33	71
	Red brown silty f.-c. SAND, trace f.-m. gravel (6-65)	-60	S14 SS 8 19 29 38 30	67
	Red brown f.-c. SAND, trace f.-m. gravel, silt, and clay (6-65)	-65	S15 SS 8 50 95 28 37	123
	Red brown f.-c. SAND, trace silt, clay, and f.-c. gravel (6-65)	-70	S16 SS 12 37 48 33 40	81
	Red brown f.-c. SAND, trace f.-c. gravel, silt, and clay (6-65)	-75	S17 SS 9 21 37 62 48	99
	Boring terminated D = 80'		Borehole grouted upon completion	
		-80		
		-85		
		-90		



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PROJECT Gowanus Development			PROJECT NO. 1503701																		
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx. el. 10.9 [BBHDD]																		
DRILLING EQUIPMENT CME 75 Truck Mounted Rig			DATE STARTED 10/14/98			DATE FINISHED 10/15/98			COMPLETION DEPTH 82 ft.												
SIZE AND TYPE OF BIT 4 7/8" (0'-4') and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES			DIST. 19			UNDIST. -----			CORE -----									
CASING DIAMETER (in) 4 1/2" OD 4" ID		CASING DEPTH (ft) 8		WATER LEVEL (ft.)			FIRST ▽ 8			COMPL. -----			24 HR. ▽ -----								
SAMPLER 2" OD 1 3/4" ID Split Spoon			DRILLING FOREMAN Greg Marney/Robert Danielson/Tommy Gregorey																		
SAMPLER HAMMER		WEIGHT (lbs) 140		DROP (in) 30		INSPECTING ENGINEER Gary L. Gleason															
ELEV. (ft)	SAMPLE DESCRIPTION		SYMBOL LOG	DEPTH SCALE	SAMPLE DATA								REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)								
					NUMBER	S1	S2	S3	S4	S5	S6	S7	REC'D. (in)	PENETR. BL/6in	RESIST. BL/6in	N-VALUE BLOWS DEB/T					
prox. el. 10.9	2" ASPHALT		▽	5	25	26	39		65				"New York City BC Classification numbers (In parenthesis PID = 21 ppm, petroleum like material odor								
	Black f.-c. SAND, some f.-m. gravel/coal and red brick, trace silt (11-65)*				80	85	42	47	7	6		127			PID = 4.5 ppm, petroleum like material odor Added water/mud D = 4'						
	Black f.-c. SAND, trace f.-m. gravel/coal, red brick, silt, and wood (11-65)				8	2	2	2	3.5	7			13			PID = 4.5 ppm, petroleum like material odor					
	Black/brown f.-m. GRAVEL/COAL, some f.-c. sand, trace silt and glass (11-65)				3	3	3	3	3	3						PID = 1.5 ppm, petroleum like material odor					
	Black/brown f.-c. silty SAND, trace f. gravel/coal (11-65)				3	2	3	3	3	3						PID = 0 ppm, petroleum like material odor					
	Black/gray f.-c. SAND, some silt and wood, trace f. gravel/coal (11-65)				4	3	3	3	3	3											
	WOOD, some black/gray f.-c. sand and f. gravel/coal, trace silt and glass (11-65)				5	3	3	3	3	3											
	Gray/brown f. sandy SILT, trace roots, shell, and clay (11-65)				6	3	3	3	3	3											
	Brown f.-m. SAND (7-65)				7	3	3	3	3	3	18	2	20	19	36	PID = 0 ppm					
	Brown f.-m. SAND (7-65)				8	3	3	3	3	3	22	17	17	17		PID = 0 ppm					
	Gray f.-m. SAND, trace silt and clay (7-65)				9	11	11	11	11	11	11	10	5	8	12	Sample S9 6" Lense brown clayey SILT, trace f. sand (10-65) in bottom of sample PID = 0.1 ppm					
	Brown/gray f.-m. SAND (7-65)				10	20	20	20	20	20	20	8	11	13	24	PID = 0.1 ppm					
		11	16	16	16	16	16	16	8	8	7	15	PID = 0.3 ppm								



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PROJECT		PROJECT NO.		
Gowanus Development		1503701		
LOCATION		ELEVATION AND DATUM		
Brooklyn, NY		Approx. el. 10.9 [BBHDD]		
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH SCALE	SAMPLE DATA	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown/gray silty f. SAND sand, trace clay (8-65)	45	S12 SS 19 6 7 8 9	PID = 0.2 ppm PID = 0.3 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)	50	S13 SS 19 3 4 5	PID = 0.1 ppm
	Brown/gray clayey SILT, trace f.-m. sand (10-65)	55	S14 SS 0 40 39 39 35	Rig chatter D = 53'
	Inferred Red brown f.-c. SAND, some f.-m. gravel, trace silt and clay (6-65)	60	S15 SS 4 27 43 37 39	Sample S14 spoon tip material Rig chatter D = 55' - 60'
	Red brown f.-c. SAND, some silt, trace f.-m. gravel and clay (6-65)	65	S16 SS 4 26 33 34 41	PID = 0 ppm Rig chatter D = 60' - 65'
	Red brown silty f.-c. SAND, some f.-c. gravel, trace clay (6-65)	70	S17 SS 3 29 65 54 76	
	Red brown f.-m. GRAVEL, some f.-c. sand, trace silt (6-65)	75	S18 SS 2 29 58 52 73	119 110
	Red brown f.-m. GRAVEL, trace f.-c. sand, silt, and clay (6-65)	80	S19 SS 3 31 32 47 36	79
	Boring terminated D = 82'	85		Borehole grouted upon completion
		90		

PROJECT Gowanus Development			PROJECT NO. 1503701									
LOCATION Brooklyn, NY			ELEVATION AND DATUM Approx. el. 11.2 [BBHDD]									
DRILLING EQUIPMENT Mobile B61 Truck Mounted Rig			DATE STARTED 10/14/98		DATE FINISHED 10/15/98		COMPLETION DEPTH 82 ft.					
SIZE AND TYPE OF BIT 4 7/8" (0'-4') and 3 7/8" Tri-Cone Roller Bits			NUMBER OF SAMPLES		DIST.	19	UNDIST.	CORE -----				
CASING DIAMETER (in)	CASING DEPTH(ft)		WATER LEVEL (ft.)		FIRST	6	COMPL.	24 HR.	V -----			
SAMPLER 2" OD 1 3/4" ID Split Spoon			DRILLING FOREMAN Ernest Thomas/Desmond Williams									
SAMPLER HAMMER	WEIGHT(lbs)	140	DROP(in)	30	INSPECTING ENGINEER Gary L. Gleason							
ELEV. (ft)	SAMPLE DESCRIPTION			DEPTH SCALE	SYMBOL LOG	NUMBER	TYPE	RECOV. (in)	PENETR. BLWS/in	N-VALUE BLOW/ft	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
el. 11.2	3" ASPHALT					S2	SS	7	28 21 100	121	"New York City BC Classification numbers in parenthesis Added water D = 0.5' PID = 11 ppm, petroleum like material odor PID = 0.2 ppm, petroleum like material odor	
	Black/brown f.-c. GRAVEL/COAL, some f.-c. sand, trace silt (11-65)*					S3	SS	10	7 8 2 2	10		
	Black/brown f.-c. SAND, trace f.-m. gravel/coal, silt, and metal (11-65)					S4	SS	6	3 4 2 3	6		
	Black/brown f.-m. GRAVEL/COAL and f.-c. SAND, trace silt (11-65)					SS	SS	0.5	4 3 3 3	6	PID = 0.3 ppm, petroleum like material odor	
	Gray/brown f.-c. SAND, some silt, trace f.-m. gravel/coal, one seed (11-65)					SS	SS	0	4 2 2 2	4	PID = 0 ppm	
	Inferred miscellaneous FILL (11-65)											
	Brown f.-c. SAND, trace f. gravel and silt (11-65)					S6	S5		5 4 3 4	7	Very hard drilling Added mud D = 14' - 15'	
	Brown/black PEAT (11-65)					S7	SS	14	2 2 5 7	7	PID = 0.1 ppm, petroleum like material odor PID = 1 ppm, petroleum like material odor	
	Brown-silty f. SAND, trace clay (8-65)					S8	SS	10	13 14 15 17	29	PID = 0 ppm, petroleum like material odor	
	Brown f. SAND, trace silt (8-65)					S9	SS	21	5 3 2 4	5	PID = 0.1 ppm	
	Gray/brown f. SAND, some silt (8-65)					S10	SS	19	12 15 19 20	34	PID = 0 ppm	
	Gray clayey f.-m. SAND, trace silt (7-65)					S11	SS	17	5 7 8 9	15	Sample S9 10' Lense Gray clayey SILT, trace f. sand (10-65) w/ PID = 0 ppm in bottom of sample	
	Brown/gray f.-m. SAND (7-65)										PID = 0 ppm	
	Brown/gray f.-m. SAND (7-65)										PID = 0 ppm	



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PROJECT Gowanus Development		PROJECT NO. 1503701		ELEVATION AND DATUM Approx. el. 11.2 [BBHDD]								
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	RECOV. (in)	PENETR. BL/6in	N-VALUE PER FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)			
	Brown/gray f.-m. sandy SILT (10-65)			45	S12	SS	2 3 5 7	8	PID = 0 ppm			
	Brown/gray SILT, trace clay and f.-m. sand (10-65)			50	S13	SS	2 1 2 3	3	PID = 0 ppm			
	Red brown silty f.-c. SAND, trace clay and f. gravel (7-65)			55	S14	SS	10 13 19 16	32	PID = 0 ppm	PID = 0 ppm		
	Red brown silty f.-c. SAND, some f.-m. gravel, trace clay (6-65)			60	S15	SS	17 25 26 28	51	Slow/hard drilling D = 59'	PID = 0 ppm		
	Red brown silty f.-c. SAND, some f.-m. gravel, trace clay (6-65)			65	S16	SS	21 49 67 100/6"	116	Spoon refusal D = 67'			
	Red brown f.-c. SAND, some f.-m. gravel and silt, trace clay (6-65)			70	S17	SS	21 100/6"	100/6"	Spoon refusal 100/6" D = 71'			
	Red brown f.-c. SAND, some f.-m. gravel, trace silt and clay (6-65)			75	S18	SS	40 53 58 39	111	Rig chatter			
	Gray f.-c. GRAVEL and red brown f.-c. SAND, trace silt and clay (6-65)			80	S19	SS	66 83 100/5"	183/11	Spoon refusal D = 81.5'			
	Boring terminated D = 82'			85					Borehole grouted upon completion			
				90								

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING					
RW-1							
PROJECT NO./NAME	LOCATION						
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue						
APPROVED BY	LOGGED BY						
G. Tyers	C. Battista	Brooklyn, New York					
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA						
Aquifer Drilling & Testing, Inc. / S. Miller	On Site Along 12th Street						
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD					
6.25-in. / Auger	10-inches	Mobile Drill B-61 / HSA					
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD					
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon					
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0					
(FT.)	TOP OF WELL CASING	DIA. 4-inch					
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot					
	/	GW SURFACE					
		GRAVEL PACK #2					
Depth, feet	Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5				Brown fine to coarse SAND, some Gravel, trace Brick; dry to wet (fill)			
10				Brown fine to coarse SAND, some Silt, little Gravel, trace Brick; dry to wet (fill) No recovery	21.8		Strong odor
15				Brown to dark brown fine to coarse Sand, and Gravel, little Silt, little Wood; wet (fill) Brown to red fine to coarse SAND, some Silt, little Gravel, trace Brick, trace Concrete; wet (fill) Green to grey PEAT; moist	29.3		Sheen and strong odor
20				Dark gray Silt and fine Sand; wet	13.7		Thickness of peat interval Interpreted from previous Site investigation
25				Dark gray Silt and fine Sand; wet	4.5		Strong odor
30				Dark gray Silt and fine Sand, trace Gravel; wet	5.8		
35				Brown Silt and fine Sand; wet	10.4		
40				Brown Silt and fine Sand; wet	79.4		Sheen and strong odor
45				Brown Silt and fine Sand; wet			Sheen and strong odor
50				Brown Silt and fine Sand; wet	30.1		Trace free product
							Bottom of well 47.5 feet below land surface

Page 1 of 1

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-2		
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue
APPROVED BY G. Tyers	LOGGED BY C. Battista	Brooklyn, New York
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / S. Miller		GEOGRAPHIC AREA On Site Along Pathmark Wall
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD Mobile Drill B-61 / HSA
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0
	MAT. SCH 40 PVC	DIA. 4-inch
	TOP OF WELL CASING	GW SURFACE
	TOP & BOTTOM SCREEN	GRAVEL PACK #2
Depth, feet	Graphic Log	Visual Description
6-inch Locking Steel Protective Stand Pipe		
CEMENT		Brown fine to coarse SAND, little Gravel, trace Silt, trace Brick, trace Coal Fragments; dry to wet (fill)
5		
Cement/Bentonite Grout		
10		
Bentonite Chips		Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill)
15		Brown fine to medium SAND, trace Silt, trace Gravel; wet (fill)
4-inch PVC Well Casing		Brown fine to medium SAND, trace Silt, trace Gravel; wet (fill)
20		Brown fine to medium SAND, trace Silt, trace Gravel, trace Wood; wet (fill)
20-Slot PVC Well Screen		Brown fine to medium SAND, trace Silt, trace Gravel, trace Wood; wet (fill)
25		Brown Silt and fine Sand, little coarse Gravel; wet
#2 Sand		Brown Silt and fine Sand, little Gravel; wet
30		Brown Silt and fine Sand, little Gravel; wet
35		Brown Silt and fine Sand, little Gravel; wet
40		Brown Silt and fine Sand, little Gravel; wet
45		Dark gray to brown fine SAND, little Silt; wet
50		Bottom of well 47.5 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING			
RW-3					
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York			
APPROVED BY D. Moss		GEOGRAPHIC AREA On Site Along Pathmark Wall			
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA			
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 3/21/02-3/28/02			
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	DIA. 4-inch			
ELEVATION OF: (FT.)	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 35.0			
	TOP OF WELL CASING	GW SURFACE			
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot			
	/	#2			
6-inch Locking Steel Protective Depth, feet	Stand Pipe	4-inch Locking Test Well Plug			
		Graphic Log			
		Visual Description			
		Blow Counts per 6"			
		PID Values (ppm)			
		REMARKS			
5	CEMENT	Brown fine to coarse SAND, trace Gravel, trace Brick; wet at 5 (fill)			
5	Cement/ Bentonite Grout				
10	Bentonite Chips				
10	4-Inch PVC Well Casing	Brown fine to coarse SAND, little Gravel, little Brick, trace Silt; wet (fill)	0.0		
10		Brown fine to coarse SAND, little Gravel, little Brick, trace Silt; wet (fill)	0.0		
15		Brown fine to coarse SAND, trace Gravel, trace Silt; wet (fill)	1.4		
15		Brown fine to medium SAND, trace Silt, trace Gravel; wet (fill)	5.7	Strong odor and trace free product	
20		Brown fine to medium SAND, trace Silt, trace Gravel; wet (fill)	1.4	Trace free product	
20		Brown fine to coarse SAND, little Silt; wet	27.4	Odor	
25	20-Slot PVC Well Screen	Brown fine to coarse SAND, little Silt, trace Gravel; wet	15.1	Odor	
25					
30	#2 Sand	Brown fine to coarse SAND, little Silt, trace Gravel; wet	152	Free product	
30					
35		Brown SILT, some fine Sand, trace coarse Sand; wet	98.1	Odor and free product	
35					
40		Brown fine SAND, little Silt, trace Gravel; wet	237	Odor and free product	
40					
45		Brown fine SAND, little Silt, trace Gravel; wet	1681	Free product	
45					
50	5-foot PVC Sump				
50	Push on PVC Well Cap				
		Bottom of well 50 feet below land surface			

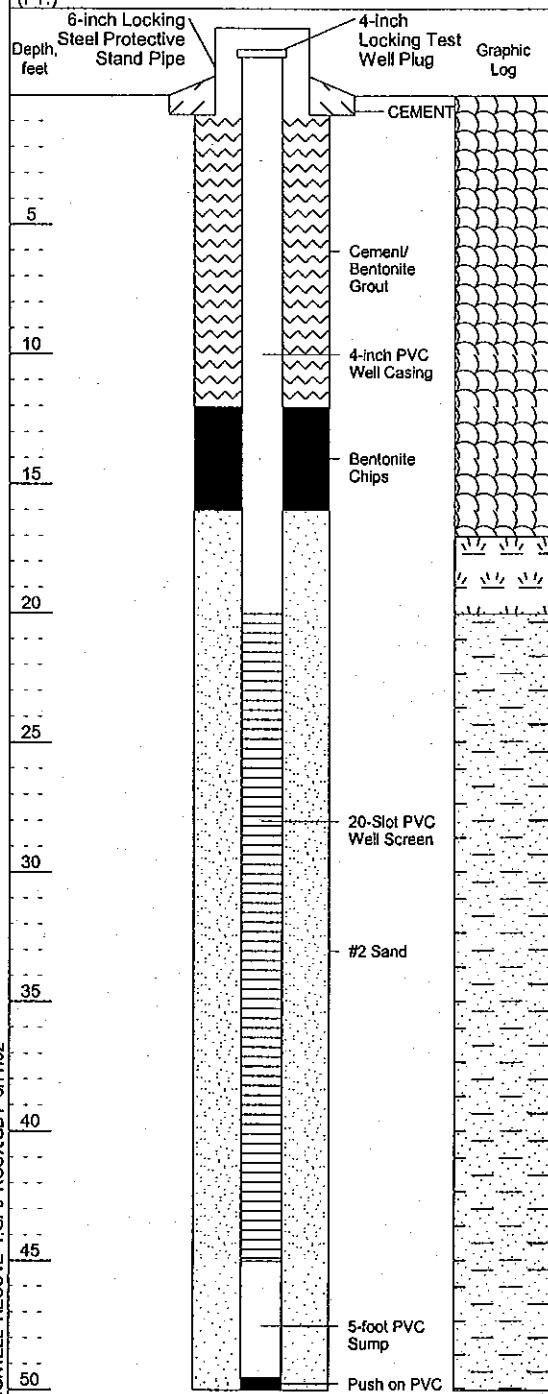
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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-4		
PROJECT NO./NAME	LOCATION	
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue	
APPROVED BY	LOGGED BY	
G. Tyers	D. Moss	Brooklyn, New York
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA	
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along Pathmark Wall	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-inches	CME-75 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
ELEVATION OF:	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 35.0 DIA. 4-inch SLOT SIZE 20-Slot
(FT.)		GW SURFACE GRAVEL PACK #2
6-Inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Graphic Log
Depth, feet	CEMENT	Visual Description
5	Cement/Bentonite Grout	Brown fine to coarse SAND, trace Brick, trace Silt, trace Gravel; wet at 5 (fill)
10	Bentonite Chips	Brown fine to coarse SAND, trace Brick, trace Silt, trace Gravel; wet (fill)
15	4-Inch PVC Well Casing	Brown fine to coarse SAND, trace Brick, trace Silt, trace Gravel; wet (fill)
20		Brown fine to coarse SAND, trace Brick, trace Silt, trace Gravel; wet (fill)
25	20-Slot PVC Well Screen	Brown fine to medium SAND, trace Gravel; wet (fill)
30	#2 Sand	Gray fine SAND, little Wood; wet (fill)
35		Brown fine to coarse SAND, little Silt, trace Gravel; wet
40		Brown fine to coarse SAND, some Silt, trace Gravel; wet
45		Brown fine to coarse SAND, some Silt, trace Gravel; wet
50	5-foot PVC Sump	Brown fine to coarse SAND, some Silt, trace Gravel; wet
	Push on PVC Well Cap	Bottom of well 50 feet below land surface
BORING/WELL RECOVE-1.GPJ ROUX GDT 6/11/02		
		Blow Counts per 6"
		PID Values (ppm)
		REMARKS
		5
		10
		15
		20
		25
		30
		35
		40
		45
		50

Page 1 of 1

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING																																																																						
RW-5																																																																								
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY C. Battista	LOCATION 124-136 2nd Avenue																																																																						
APPROVED BY G. Tyers		BROOKLYN, NEW YORK																																																																						
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / S. Miller		GEOGRAPHIC AREA On Site Along Pathmark Wall																																																																						
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD Mobile Drill B-61 / HSA																																																																						
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon																																																																						
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0																																																																						
	MAT. SCH 40 PVC	DIA. 4-inch																																																																						
	TOP OF WELL CASING	GW SURFACE																																																																						
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot																																																																						
	/	GRAVEL PACK #2																																																																						
 <p>Visual Description</p> <table border="1"> <thead> <tr> <th>Depth (ft)</th> <th>Visual Description</th> <th>Blow Counts per 6"</th> <th>PID Values (ppm)</th> <th>Remarks</th> </tr> </thead> <tbody> <tr><td>5</td><td>Brown coarse to fine SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill)</td><td></td><td></td><td></td></tr> <tr><td>10</td><td>Brown fine SAND, trace Silt, trace Gravel; wet (fill)</td><td>0.0</td><td></td><td></td></tr> <tr><td>15</td><td>Brown fine SAND, trace Silt, trace Gravel; wet (fill)</td><td>3.3</td><td></td><td></td></tr> <tr><td>15</td><td>Brown fine SAND, little Silt, trace Gravel; wet (fill)</td><td>9.5</td><td>Black staining</td><td>15</td></tr> <tr><td>20</td><td>No recovery</td><td></td><td></td><td></td></tr> <tr><td>20</td><td>Green to gray Peat and Clay, trace Sand; wet</td><td>14.6</td><td>Thickness of peat interval interpreted from previous Site</td><td>20</td></tr> <tr><td>25</td><td>Brown fine to coarse SAND, little Silt, little Gravel; wet</td><td>2.6</td><td>Strong odor</td><td>25</td></tr> <tr><td>30</td><td>Brown fine to coarse SAND, some Silt; wet</td><td>1.7</td><td>Strong odor</td><td>30</td></tr> <tr><td>35</td><td>Brown fine to coarse SAND, some Silt, trace Gravel; wet</td><td>106</td><td>Strong odor</td><td>35</td></tr> <tr><td>35</td><td>Brown fine to coarse SAND, some Silt, trace Gravel; wet</td><td>134</td><td>Trace free product</td><td>35</td></tr> <tr><td>40</td><td>Brown fine to coarse SAND, some Silt; wet</td><td>281</td><td>Free product</td><td>40</td></tr> <tr><td>45</td><td>Brown Silt and fine Sand; wet</td><td>375</td><td>Odor and free product</td><td>45</td></tr> <tr><td>50</td><td></td><td></td><td>Bottom of well 50 feet below land surface</td><td>50</td></tr> </tbody> </table>			Depth (ft)	Visual Description	Blow Counts per 6"	PID Values (ppm)	Remarks	5	Brown coarse to fine SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill)				10	Brown fine SAND, trace Silt, trace Gravel; wet (fill)	0.0			15	Brown fine SAND, trace Silt, trace Gravel; wet (fill)	3.3			15	Brown fine SAND, little Silt, trace Gravel; wet (fill)	9.5	Black staining	15	20	No recovery				20	Green to gray Peat and Clay, trace Sand; wet	14.6	Thickness of peat interval interpreted from previous Site	20	25	Brown fine to coarse SAND, little Silt, little Gravel; wet	2.6	Strong odor	25	30	Brown fine to coarse SAND, some Silt; wet	1.7	Strong odor	30	35	Brown fine to coarse SAND, some Silt, trace Gravel; wet	106	Strong odor	35	35	Brown fine to coarse SAND, some Silt, trace Gravel; wet	134	Trace free product	35	40	Brown fine to coarse SAND, some Silt; wet	281	Free product	40	45	Brown Silt and fine Sand; wet	375	Odor and free product	45	50			Bottom of well 50 feet below land surface	50
Depth (ft)	Visual Description	Blow Counts per 6"	PID Values (ppm)	Remarks																																																																				
5	Brown coarse to fine SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill)																																																																							
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45	Brown Silt and fine Sand; wet	375	Odor and free product	45																																																																				
50			Bottom of well 50 feet below land surface	50																																																																				

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-6						
PROJECT NO./NAME		LOCATION				
92401Y03 / FC Gowanus former MGP Site		124-136 2nd Avenue				
APPROVED BY	LOGGED BY	Brooklyn, New York				
G. Tyers	D. Moss					
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA				
Aquifer Drilling & Testing, Inc. / L. Adams		On Site Along Pathmark Wall				
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE		
6.25-in. / Auger	10-Inches	CME-75 / HSA	2" Split Spoon	3/21/02-3/25/02		
CASING MAT./DIA.	SCREEN:	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot	
SCH 40 PVC / 4-inch	TYPE Slotted			GW SURFACE	GRAVEL PACK	
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	/	#2	
6-inch Locking Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
Depth, feet	CEMENT					
5	Cement/ Bentonite Grout		Brown fine to coarse SAND, trace Gravel, trace Brick, trace Sill; dry to wet (fill)			
10	4-inch PVC Well Casing		Brown fine SAND, little Silt, trace Brick; wet (fill)	1.6	Odor and Black Staining	10
15	Bentonite Chips		Green to gray Peat and Clay, trace brown Sand; moist	7.3		
20			Fine SAND, trace Gravel, trace Sill; wet	5.9	Thickness of peat interval Interpreted from previous Site investigation Black staining Odor	15
25			Gray fine SAND, little Silt, trace Gravel; wet	1.9	Black staining	20
30	20-Slot PVC Well Screen		Gray fine SAND, little Silt, trace Gravel; wet	4.7	Slight Odor	25
35	#2 Sand		Grey SILT, Some fine Sand; wet	156	Odor	30
40			Brown to green fine SAND, some Silt; wet	350	Odor	35
45			Brown to green fine SAND, some Silt; wet	1254	Odor	40
50	5-foot PVC Sump		Brown to green fine SAND, some Silt; wet	1824	Odor	45
	Push on PVC Well Cap					Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-7		
PROJECT NO./NAME	LOCATION	
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue	
APPROVED BY	LOGGED BY	
G. Tyers	C. Battista	
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA	
Aquifer Drilling & Testing, Inc. / S. Miller	On Site Along Pathmark Wall	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-Inches	Mobile Drill B-61 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
MAT.	SCH 40 PVC	TOTAL LENGTH 25.0
ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING
(FT.)		
CEMENT	Graphic Log	Visual Description
6-inch Locking Steel Protective Stand Pipe		
Depth, feet	4-inch Locking Test Well Plug	Blow Counts per 6"
		PID Values (ppm)
		REMARKS
5		
10		
15		
20		
25		
30		
35		
40		
45		
50		
Bottom of well 50 feet below land surface		
BORING WELL RECOVE-1.GPJ ROUX GDT 6/11/02		

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WELL CONSTRUCTION LOG

WELL NO. RW-8	NORTHING	EASTING		
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue		
APPROVED BY G. Tyers	LOGGED BY C. Battista	Brooklyn, New York		
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / S. Miller		On Site Along 12th Street		
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD Mobile Drill B-61 / HSA		
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon		
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0		
	MAT. SCH 40 PVC	DIA. 4-inch		
	TOP OF WELL CASING	TOP & BOTTOM SCREEN		
		GW SURFACE		
		SLOT SIZE 20-Slot		
		GRAVEL PACK #2		
		Visual Description Depth, feet 5 10 15 20 25 30 35 40 45 50		
		Blow Counts per 6"		
		PID Values (ppm)		
		REMARKS		
CEMENT Cement/Bentonite Grout 4-inch PVC Well Casing Bentonite Chips 20-Slot PVC Well Screen #2 Sand 5-foot PVC Sump Push on PVC Well Cap		Brown fine to coarse fine SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill) Brown fine to coarse SAND, trace silt, trace concrete; wet (fill) Brown fine to medium SAND, trace Silt; wet (fill) Brown PEAT; wet Brown fine to coarse SAND, little Silt, trace Gravel; wet Brown fine to coarse SAND, little Silt; wet Brown fine to coarse SAND, little Silt, trace Gravel; wet Brown to dark gray fine to medium SAND, some Silt, little Clay; wet Brown to dark gray fine to medium SAND, some Silt, little Clay; wet Dark gray to brown fine SAND, little Silt; wet Dark gray to brown fine SAND, little Silt; wet	38.5 17.1 0.0 333 235 427 236	Black staining and trace free product Thickness of peat interval interpreted from previous Site investigation Strong odor and trace free product Slight odor and Sheen Slight odor and Sheen Odor Odor Odor Bottom of well 49.5 feet below land surface



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& Management

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Fax: 631-232-9898

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING		EASTING																																																																													
RW-9																																																																																
PROJECT NO./NAME			LOCATION																																																																													
92401Y03 / FC Gowanus former MGP Site			124-136 2nd Avenue																																																																													
APPROVED BY	LOGGED BY																																																																															
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DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA																																																																															
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street																																																																															
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD		SAMPLING METHOD	START-FINISH DATE																																																																											
6.25-in. / Auger	10-inches	CME-75 / HSA		2" Split Spoon	3/22/02-4/2/02																																																																											
CASING MAT./DIA.	SCREEN:	MAT.	SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch																																																																											
SCH 40 PVC / 4-inch	TYPE Slotted				SLOT SIZE 20-Slot																																																																											
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK #2																																																																											
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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-10		
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY R. Kovacs	LOCATION 124-136 2nd Avenue Brooklyn, New York
APPROVED BY G. Tyers		GEOGRAPHIC AREA On Site Along 12th Street
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 6.25-in. / Auger	DRILLING EQUIPMENT/METHOD CME-75 / HSA
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0 MAT. SCH 40 PVC DIA. 4-inch TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE SLOT SIZE 20-Slot #2
6-inch Locking Steel Protective Depth, feet	Graphic Log	Visual Description
Stand Pipe		
5	CEMENT	Brown fine to coarse SAND, trace Gravel, trace Silt, trace Brick; dry to wet (fill)
10	Cement/Bentonite GROUT	Green to brown fine SAND, little Silt, trace Gravel; wet (fill)
15	4-inch PVC Well Casing	Green to brown fine SAND, little Silt; wet (fill)
15	Bentonite Chips	Green to brown fine SAND, little Silt; wet (fill)
20		Green to brown fine to coarse SAND, little Silt, little Peat at 18; wet (fill)
20		Brown PEAT; moist
25		Brown to light brown fine SAND, some Silt; wet
30		Brown to reddish brown fine to medium SAND, some Silt; wet
30	20-Slot PVC Well Screen	Brown to light brown fine to medium SAND, some Silt; wet
35	#2 Sand	Brown fine to medium SAND, some Silt; wet
40		Brown SILT, some medium Sand; wet
45		Brown SILT, some fine to medium Sand; wet
50	5-foot PVC Sump	
	Push on PVC Well Cap	Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-11		
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York
APPROVED BY D. Moss		GEOGRAPHIC AREA On Site Along 12th Street
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 6.25-in. / Auger 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0 MAT. SCH 40 PVC TOP OF WELL CASING TOP & BOTTOM SCREEN GW SURFACE #2
6-Inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	DIA. 4-inch SLOT SIZE 20-Slot GRAVEL PACK
Depth, feet	Graphic Log	Blow Counts per 6"
5	CEMENT	PID Values (ppm)
10	Cement/ Bentonite Grout	REMARKS
15	4-inch PVC Well Casing	5.0
20	Bentonite Chips	Black staining
25	20-Slot PVC Well Screen	71.9
30	#2 Sand	Black staining
35		43.9
40		31.2
45		138
50	5-foot PVC Sump	Thickness of peat interval interpreted from previous Site investigation
	Push on PVC Well Cap	7.2
		25
		7.2
		Odor and trace free product
		30
		23.2
		Trace free product
		35
		17.6
		Trace free product
		40
		1124
		Trace free product
		45
		280
		50
		Bottom of well 50 feet below land surface



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-12						
PROJECT NO./NAME	LOCATION					
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue					
APPROVED BY	LOGGED BY					
G. Tyers	D. Moss	Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA					
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0				
(FT.)	TOP OF WELL CASING	DIA. 4-inch				
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot				
	GW SURFACE	GRAVEL PACK #2				
Depth, feet	CEMENT	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	6-Inch Locking Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Brown fine to coarse SAND, trace Gravel, trace Silt, trace Brick; dry to moist (fill)			
10	Cement/Bentonite Grout		BRICK; dry (fill) Brown fine to coarse SAND, some Gravel, trace Brick, trace Silt; wet at 7 (fill)			
15	4-Inch PVC Well Casing		Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill)	55.3		Sheen and odor
20	Bentonite Chips		Brown fine to coarse SAND, little Silt, little Gravel; wet (fill)	72.2		Slight odor
25			Brown fine to coarse SAND, little Silt, little Gravel; wet (fill)	74.9		Slight odor
30			Brown fine to coarse SAND, some Gravel, little Silt; wet (fill) Brown PEAT; moist	1.7		Thickness of peat interval Interpreted from previous Site Investigation
35	20-Slot PVC Well Screen		Brown fine to coarse SAND, some Silt, trace Gravel; wet	11.7		
40	#2 Sand		Brown fine to coarse SAND, some Silt, trace Gravel; wet	19.3		
45			Brown fine to coarse SAND, some Silt, trace Gravel; wet	4.1		
50	5-foot PVC Sump	Push on PVC Well Cap	Brown fine to coarse SAND, some Silt, trace Gravel; wet	35.1		Odor
			Brown fine to coarse SAND, some Silt, trace Gravel; wet	174		Odor and trace free product
			Brown fine to coarse SAND, some Silt, trace Gravel; wet	294		Odor and trace free product
			Bottom of well 50 feet below land surface			



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-13		
PROJECT NO./NAME	LOCATION	
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue	
APPROVED BY	LOGGED BY	
G. Tyers	D. Moss	Brooklyn, New York
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA	
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-inches	CME-75 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
ELEVATION OF: (FT.)	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 25.0 DIA. 4-inch SLOT SIZE 20-Slot
	TOP OF WELL CASING	GW SURFACE #2
	TOP & BOTTOM SCREEN /	GRAVEL PACK
6-inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Graphic Log
Depth, feet	CEMENT	Visual Description
5		Brown fine to coarse SAND, trace Gravel, trace Silt, trace Brick; dry to moist (fill)
	Cement/ Bentonite Grout	Brick and Concrete; dry (fill)
10		Brown fine to coarse Sand and Brick; wet (fill)
		Brown PEAT; moist
		Brown PEAT; moist
	4-inch PVC Well Casing	Fine SAND, some Silt, trace Gravel; wet
15		Brown to green fine SAND, some Silt; wet
	Bentonite Chips	Brown fine SAND, little Silt; wet
20		Brown SILT, little fine Sand, trace Gravel; wet
	20-Slot PVC Well Screen	Brown SILT, little fine Sand, trace Gravel; wet
25		Brown fine SAND, some Silt; wet
	#2 Sand	Brown to green SILT, little fine Sand; wet
30		Brown SILT, some Sand; wet
	5-foot PVC Sump	Bottom of well 50 feet below land surface
35		
40		
45		
50		

BORING WELL RECOVE-1.GPJ ROUXGDT 6/11/02

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING					
RW-14							
PROJECT NO./NAME			LOCATION				
92401Y03 / FC Gowanus former MGP Site			124-136 2nd Avenue				
APPROVED BY	LOGGED BY						
G. Tyers	C. Battista		Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER			GEOGRAPHIC AREA				
Aquifer Drilling & Testing, Inc. / S. Miller			On Site Along 12th Street				
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE			
6.25-In. / Auger	10-Inches	Mobile Drill B-61 / HSA	2" Split Spoon	3/22/02-3/26/02			
CASING MAT./DIA.	SCREEN:	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot		
SCH 40 PVC / 4-inch	TYPE Slotted			GW SURFACE	GRAVEL PACK #2		
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	/			
6-inch Locking Depth, feet	Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Graphic Log	Blow Counts per 6"	PID Values (ppm)		
5	CEMENT		Brown fine to coarse SAND, little Gravel, trace Silt; dry (fill)				
10	Cement/ Bentonite Grout		Brown fine to coarse SAND, little Gravel, trace Silt; dry to moist (fill)	49.5			
15	4-inch PVC Well Casing		Brown fine to coarse SAND, little Gravel, trace Silt; wet (fill) Brown PEAT; moist	45.9			
20	Bentonite Chips		Brown PEAT; moist to wet	1.3			
25	20-Slot PVC Well Screen		Dark brown SAND, some Silt, trace Peat; wet	2.7			
30	#2 Sand		Dark brown PEAT; moist to wet	125			
35			Dark brown fine SAND, little Silt; wet	147	Odor end trace free product		
40			Dark brown fine SAND, little Silt; wet	413	Sheen		
45			Dark brown fine SAND, little Silt; wet	475	Trace free product		
50	5-foot PVC Sump		Dark brown fine SAND, little Silt; wet	>2000	Sheen		
	Push on PVC Well Cap			524			
Bottom of well 50 feet below land surface							



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WELL CONSTRUCTION LOG

WELL NO. RW-15	NORTHING	EASTING																																																																											
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOCATION 124-136 2nd Avenue																																																																												
APPROVED BY G. Tyers	LOGGED BY D. Moss	Brooklyn, New York																																																																											
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams		GEOGRAPHIC AREA Off Site 12th Street Sidewalk																																																																											
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA																																																																											
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon																																																																											
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0 TOP OF WELL CASING																																																																											
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		SLOT SIZE 20-Slot GRAVEL PACK #2																																																																											
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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-16						
PROJECT NO./NAME	LOCATION					
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue					
APPROVED BY	LOGGED BY					
G. Tyers	C. Battista	Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA					
Aquifer Drilling & Testing, Inc. / L. Adams	Off Site 12th Street Sidewalk					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 25.0 DIA. 4-inch				
(FT.)		GW SURFACE SLOT SIZE 20-Slot				
		#2				
Depth, feet	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	Flush Mount Manhole Cover		CONCRETE Brown to dark brown fine to coarse SAND, some Gravel, trace Silt; wet at 4 (fill)	7.9		5
10			Dark gray fine to coarse Sand and Gravel, little Silt; wet (fill)	5.8		10
15			Brown to dark gray GRAVEL, some fine to coarse Sand, trace Silt, trace Ash, trace Cinders; wet (fill) Brown to dark gray fine to coarse SAND, trace Silt, trace Gravel; wet (fill) Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill)	4.1		15
20			Brown PEAT; moist	26.4		20
25			Brown Silt and fine Sand, little Gravel; wet			25
30			Brown Silt and fine Sand, little Gravel; wet			30
35			Brown Silt and fine Sand, little Gravel; wet			35
40			Dark gray fine SAND, some Silt, little Clay; wet			40
45			Dark gray fine SAND, some Silt, little Clay, little Gravel; wet			45
50			Bottom of well 49 feet below land surface			50

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING		
RW-17				
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York		
APPROVED BY R. Kovacs		GEOGRAPHIC AREA Off Site 12th Street Sidewalk		
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 6.25-in. / Auger	DRILLING EQUIPMENT/METHOD CME-75 / HSA		
CASING MAT/DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon		
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0 MAT. SCH 40 PVC TOP OF WELL CASING TOP & BOTTOM SCREEN /		
		DIA. 4-inch GW SURFACE #2		
		SLOT SIZE 20-Slot GRAVEL PACK		
Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	CONCRETE Brown to dark brown fine to coarse SAND, some Silt; wet (fill)	13.0	Slight odor	5
10	Brown to dark brown fine to medium SAND, some Silt; wet (fill)	14.0	Slight odor	10
15	Brown to dark brown fine Sand and Silt; wet (fill) Brown fine to medium SAND; wet (fill) Brown fine Sand and Silt; wet (fill) Brown to reddish brown fine to medium SAND; wet (fill) Brown PEAT; moist	22.3 12.7 12.3 10.7 7.4	Slight odor Slight odor Slight odor Slight odor Thickness of peat interval Interpreted from previous Site investigation Slight odor	15
20	Brown fine to medium SAND; wet	10.7	Slight odor	20
25	Brown to dark brown fine SAND; wet	11.9	Slight odor	25
30	Brown to dark brown fine SAND; wet	14.9	Slight odor	30
35	Brown fine to medium SAND; wet	9.7	Slight odor	35
40	Brown fine to medium SAND; wet	47.3	Odor and trace free product	40
45	Brown fine to medium SAND; wet	59.9	Odor and trace free product	45
50			Bottom of well 50 feet below land surface	50

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING		
RW-18				
PROJECT NO./NAME	LOCATION			
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue			
APPROVED BY	LOGGED BY			
G. Tyers	C. Battista	Brooklyn, New York		
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA			
Aquifer Drilling & Testing, Inc. / L. Adams	Off Site 12th Street Sidewalk			
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE
6.25-in. / Auger	10-inches	CME-75 / HSA	2" Split Spoon	4/19/02-4/19/02
CASING MAT./DIA.	SCREEN:			
SCH 40 PVC / 4-inch	TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch
EL E V A T I O N O F :	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE
(FT.)			/	#2
Depth, feet	Flush Mount Manhole Cover	4-inch Locking Test Well Plug	Graphic Log	Visual Description
				Blow Counts per 6"
				PID Values (ppm)
				REMARKS
5				
10				
15				
20				
25				
30				
35				
40				
45				
50				

1. Flush Mount Manhole Cover
 2. 4-inch Locking Test Well Plug
 3. Graphic Log
 4. CONCRETE
 5. Cement/Bentonite Grout
 6. 4-inch PVC Well Casing
 7. Bentonite Chips
 8. 20-Slot PVC Well Screen
 9. #2 Sand
 10. 5-foot PVC Sump
 11. Push on PVC Well Cap

BORING WELL RECOVE-1.GPJ ROUX.GDT 6/1/02

Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-19		
PROJECT NO./NAME		LOCATION
92401Y03 / FC Gowanus former MGP Site		124-136 2nd Avenue
APPROVED BY	LOGGED BY	
G. Tyers	D. Moss	Brooklyn, New York
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA
Aquifer Drilling & Testing, Inc. / L. Adams		Off Site 12th Street Sidewalk
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-inches	CME-75 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
ELEVATION OF:	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 25.0
(FT.)		DIA. 4-inch
		SLOT SIZE 20-Slot
		GW SURFACE
		#2
Depth, feet	Flush Mount Manhole Cover 4-inch Locking Test Well Plug Graphic Log	Visual Description
5	Concrete	Concrete Brown fine to coarse SAND, little Silt, trace Brick, trace Gravel; wet at 4 (fill)
10	Cement/Bentonite Grout 4-Inch PVC Well Casing	Brown fine SAND, trace Silt, trace coarse Sand, trace Gravel; moist (fill) Brown fine SAND, trace Silt; wet (fill)
15	Bentonite Chips	Peat and green-grey CLAY; moist
20		Brown fine SAND, little Silt, trace Gravel; wet
25		Brown fine SAND, little Silt; wet
30	20-Slot PVC Well Screen	Brown fine SAND, little Silt; wet
35	#2 Sand	Brown fine SAND, little Silt, trace coarse Sand; wet
40		Brown fine SAND, little Silt, trace coarse Sand; wet
45		Brown fine SAND, little Silt; wet
50	5-foot PVC Sump Push on PVC Well Cap	Brown fine SAND, little Silt; wet
BORING WELL RECOVE-1.GPJ ROUX GDT 6/11/02		
Bottom of well 50 feet below land surface		
		Blow Counts per 6"
		PID Values (ppm)
		REMARKS

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING			
RW-20					
PROJECT NO./NAME	LOCATION				
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue				
APPROVED BY	LOGGED BY				
G. Tyers	C. Battista	Brooklyn, New York			
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA				
Aquifer Drilling & Testing, Inc. / L. Adams	Off Site 12th Street Sidewalk				
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD			
6.25-in. / Auger	10-inches	CME-75 / HSA			
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD			
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon			
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0			
(FT.)	TOP OF WELL CASING	DIA. 4-inch			
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot			
	/	GW SURFACE GRAVEL PACK			
		#2			
Depth, feet	Flush Mount Manhole Cover 4-inch Locking Test Well Plug Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0	Concrete	CONCRETE Dark brown fine to coarse SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill)			
5				13.3	Odor
10	Cement/Bentonite Grout 4-inch PVC Well Casing	Brown to dark green fine to coarse SAND, little Gravel, trace Silt, trace Brick; wet (fill) Brown fine to coarse SAND, little Gravel, trace Silt, trace Brick; wet (fill) Brown PEAT; moist		11.4 12.0	
15	Bentonite Chips	Brown medium to coarse SAND, little Silt, trace Gravel, trace Peat; wet		10.5	Thickness of peat interval interpreted from previous Site investigation
20		Brown fine SAND, little Silt; wet		6.5	Slight odor
25		Brown fine SAND, little Silt; wet		21.9	
30	20-Slot PVC Well Screen	Brown fine SAND, little Silt; wet		3.8	
35	#2 Sand	Brown fine SAND, little Silt, trace Gravel; wet		6.4	
40		Dark gray to light brown fine to medium SAND; wet		4.3	
45	5-foot PVC Sump Push on PVC Well Cap	Dark gray to light brown fine to medium SAND, trace Silt, trace Gravel; wet		5.2	
50					Bottom of well 49.5 feet below land surface.

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING	
RW-21			
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue	
APPROVED BY G. Tyers	LOGGED BY D. Moss	Brooklyn, New York	
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 10-inches	GEOGRAPHIC AREA Off Site 12th Street Sidewalk	
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger		DRILLING EQUIPMENT/METHOD CME-75 / HSA	
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon	
ELEVATION OF: (FT.)	GROUND SURFACE	TOTAL LENGTH 25.0	
	TOP OF WELL CASING	DIA. 4-inch	
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot	
	/	GW SURFACE	
		GRAVEL PACK	
		#2	
Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
CONCRETE Brown fine to coarse SAND, trace Gravel, trace Brick, trace Silt; dry to wet (fill)			
Brown fine SAND, little Silt, trace coarse Sand; wet (fill)	32.1		
Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill)	11.6		
Brown Peat and green to gray Silt and Clay; moist	5.0		Thickness of peat interval Interpreted from previous Site investigation
Brown fine SAND, little Silt; wet	10.8		
Brown fine SAND, little Silt, trace coarse Sand; wet	52.9		Strong odor
Brown fine SAND, little Silt; wet	87.4		Strong odor
Brown fine SAND, little Silt; wet	28.6		Slight odor
Brown fine SAND, little Silt; wet	18.8		Slight odor
Brown fine SAND, little Silt; wet	16.4		Slight odor
			Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-22						
PROJECT NO./NAME	LOCATION					
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue					
APPROVED BY	LOGGED BY					
G. Tyers	D. Moss	Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA					
Aquifer Drilling & Testing, Inc. / L. Adams	Off Site 12th Street Sidewalk					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	MAT. SCH 40 PVC TOTAL LENGTH 25.0 DIA. 4-inch				
(FT.)		GW SURFACE SLOT SIZE 20-Slot				
		#2				
Depth, feet	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PIO Values (ppm)	REMARKS
5	Flush Mount Manhole Cover		Concrete Brown fine to coarse SAND, trace silt, trace Brick, trace Concrete, trace Gravel; dry to wet (fill)			
10			Brown fine SAND, trace Silt; wet (fill)	699		
15			Brown fine to coarse SAND, trace Silt; wet (fill)	>2000	Odor and black staining	
20			Brown fine to coarse SAND, little silt; wet (fill)	5.7		
25			Brown fine SAND, little Silt; wet (fill) PEAT, Green-Gray Clay and fine Sand	3.7		
30			Brown to gray fine SAND, little Silt, trace coarse Sand, trace Gravel; wet	27.8	Thickness of peat interval interpreted from previous Site investigation	
35			Brown to gray fine SAND, little Silt, trace coarse Sand, trace Gravel; wet	0.0		
40			Brown to gray fine SAND, little Silt, trace coarse Sand, trace Gravel; wet	11.9		
45			Brown to gray fine SAND, little Silt, trace coarse Sand, trace Gravel; wet	0.0		
50			Brown fine SAND, little silt; wet	2.1		
			Brown fine SAND, little silt; wet	0.0		
Bottom of well 50 feet below land surface						

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING					
RW-23							
PROJECT NO./NAME	LOCATION						
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue						
APPROVED BY	LOGGED BY						
G. Tyers	D. Moss	Brooklyn, New York					
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA						
Aquifer Drilling & Testing, Inc. / L. Adams	Off Site 12th Street Sidewalk						
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD					
6.25-in. / Auger	10-inches	CME-75 / HSA					
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD					
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon					
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0					
(FT.)	TOP OF WELL CASING	DIA. 4-inch					
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot					
	GW SURFACE	GRAVEL PACK #2					
Depth, feet	Flush Mount Manhole Cover	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5				Concrete Brown fine to coarse SAND, trace Brick, trace Concrete, trace Gravel; dry to wet (III)			
10				Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill) Brown fine Sand and Silt, trace coarse Sand; wet (fill)	1354	Odor and trace free product	10
15				Brown fine SAND, little Silt, trace Gravel; wet (fill) PEAT and Green-Gray CLAY, trace Shells; moist	72.8	Odor	15
20				Brown fine to coarse SAND, little Silt, trace Gravel; wet Brown fine to coarse SAND, little Silt, trace Gravel; wet	352	Odor	Thickness of peat interval Interpreted from previous Site investigation Odor
25				Brown fine to coarse SAND, little Silt, trace Gravel; wet	92.5	Odor	20
30				Brown fine to coarse SAND, little Silt; wet	50.7	Odor	25
35				Brown fine to coarse SAND, little Silt; wet	25.2	Odor	30
40				Brown fine to coarse SAND, little Silt; wet	40.1	Odor	35
45				Brown fine to coarse SAND, little Silt; wet	13.7	Odor	40
50				Brown fine to coarse SAND, some Silt; wet	9.6	Odor	45
					12.7	Odor	50
Bottom of well 50 feet below land surface							



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING	LOCATION	GEOGRAPHIC AREA	SAMPLING METHOD	START-FINISH DATE	
RW-25			124-136 2nd Avenue	Brooklyn, New York			
PROJECT NO./NAME	92401Y03 / FC Gowanus former MGP Site	LOGGED BY					
APPROVED BY	G. Tyers	D. Moss					
DRILLING CONTRACTOR/DRILLER	Aquifer Drilling & Testing, Inc. / L. Adams						
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE			
6.25-in. / Auger	10-inches	CME-75 / HSA	2" Split Spoon	4/11/02-4/11/02			
CASING MAT/DIA.	SCREEN:						
SCH 40 PVC / 4-inch	TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot		
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK		
			/		#2		
Depth, feet	Flush Mount Manhole Cover	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5				Concrete Brown fine to coarse SAND, trace Brick, trace Concrete, trace Gravel; dry to wet (fill)			5
10				Brown fine SAND, little Silt, trace Gravel; wet (fill) Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill) Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill)	8.1 198 478	Odor Odor Odor	10
15				PEAT and Green-Gray CLAY; moist			15
20				Brown fine to coarse SAND, little Silt, trace Gravel; wet Brown fine to coarse SAND, little Silt, trace Gravel; wet	518	Thickness of peat interval interpreted from previous Site investigation Odor	20
25				Brown fine to coarse SAND, little Silt; wet	610		25
30			20-Slot PVC Well Screen	Brown fine to coarse SAND, little Silt; wet	31.4		30
35			#2 Sand	Brown fine SAND, little Silt, trace coarse Sand; wet	231	Odor	35
40				Brown fine SAND, some Silt, trace coarse Sand; wet	315	Odor	40
45				Brown fine Sand and Silt; wet	136	Odor	45
50			5-foot PVC Sump Push on PVC Well Cap	Bottom of well at 50 feet below land surface	246		50

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING			
RW-27					
PROJECT NO./NAME	LOCATION				
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue				
APPROVED BY	LOGGED BY	GEOGRAPHIC AREA			
G. Tyers	D. Moss	Brooklyn, New York			
DRILLING CONTRACTOR/DRILLER	Off Site 12th Street Sidewalk				
Aquifer Drilling & Testing, Inc. / L. Adams					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD			
6.25-in. / Auger	10-Inches	CME-75 / HSA			
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD			
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon			
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0			
(FT.)	TOP OF WELL CASING	GW SURFACE			
	TOP & BOTTOM SCREEN	GRAVEL PACK			
	/	#2			
Depth, feet	Flush Mount Manhole Cover 4-inch Locking Test Well Plug Graphic Log	VISUAL DESCRIPTION	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	Concrete	Concrete Brown fine to coarse SAND, trace Brick, trace Concrete, trace Gravel; dry to wet (fill)			5
10	Cement/Bentonite Grout	Brown fine to coarse SAND, little Gravel; wet (fill)	1.7		10
15	4-inch PVC Well Casing Bentonite Chips	Brown fine to coarse SAND, little Gravel; wet (fill) Brown fine to coarse SAND, trace Silt; wet (fill) PEAT and Green-Gray CLAY; moist	6.9 3.1 2.7		15 Thickness of peat interval interpreted from previous Site investigation
20		Brown fine SAND, little Silt, trace Gravel, trace coarse Sand; wet Brown fine to coarse SAND, little Silt, trace Gravel; wet	17.7		20
25		Brown fine SAND, little Silt; wet	32.4		25
30	20-Slot PVC Well Screen	Brown fine SAND, little Silt, trace coarse Sand; wet	3.8		30
35	#2 Sand	Brown fine SAND, little Silt, trace coarse Sand; wet	5.2		35
40		Brown fine SAND, some Silt; wet	3.8		40
45		Brown fine SAND, some Silt; wet	7.1		45
50	5-foot PVC Sump Push on PVC Well Cap	Bottom of well 50 feet below land surface			50

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-29						
PROJECT NO./NAME						
92401Y03 / FC Gowanus former MGP Site	LOGGED BY	LOCATION				
APPROVED BY G. Tyers	D. Moss	124-136 2nd Avenue Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER						
Aquifer Drilling & Testing, Inc. / L. Adams	GEOGRAPHIC AREA					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-Inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0				
(FT.)	TOP OF WELL CASING	DIA. 4-inch				
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot				
	/	GW SURFACE GRAVEL PACK #2				
Depth, feet	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	CEMENT		Brown coarse to fine SAND, trace Silt, trace Brick, trace Gravel; dry to moist (fill)		301	Odor and black staining 5
10	Cement/Bentonite Grout		Black fine to coarse SAND, little Wood, trace Gravel; moist to wet (fill)		12.8	Black staining 10
15	4-inch PVC Well Casing		CONCRETE and WOOD; wet (fill)		44.4	Black staining 15
15	Bentonite Chips		Brown fine to medium SAND, little Silt, trace Gravel, wet (fill) Green to gray CLAY and PEAT; moist		17.6	Thickness of peat interval interpreted from previous Site investigation 15
20			Gray fine SAND, little Silt, little Wood; wet		12.5	Black staining 20
25			Gray fine to coarse SAND, little Silt, trace Wood; wet		6.0	Odor and black staining 25
30	20-Slot PVC Well Screen		Gray fine SAND, some Silt, trace coarse SAND; wet		459	Odor 30
35	#2 Sand		Gray to brown fine SAND, little Silt; wet		762	Odor 35
40			Gray to brown fine SAND, little Silt; wet		314	Odor 40
45			Brown fine to medium SAND, some Silt; wet			45
50	5-foot PVC Sump		Brown fine SAND, little Silt; wet			50
	Push on PVC Well Cap					Bottom of well 50.5 feet below land surface

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-30		
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue
APPROVED BY G. Tyers		LOGGED BY D. Moss
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams		GEOPHYSIC AREA On Site Along Pathmark Wall
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	SAMPLING METHOD 2" Split Spoon
ELEVATION OF: (FT.)	GROUND SURFACE	START-FINISH DATE 4/26/02-4/26/02
TOP OF WELL CASING		TOTAL LENGTH 25.0
TOP & BOTTOM SCREEN		DIA. 4-inch
/		GW SURFACE
		SLOT SIZE 20-Slot
Depth, feet	CEMENT	REMARKS
5	4-inch Locking Test Well Plug	
10	Graphic Log	
15	CEMENT	
20	Cement/ Bentonite Grout	
25	4-inch PVC Well Casing	
30	Bentonite Chips	
35	20-Slot PVC Well Screen	
40	#2 Sand	
45	5-foot PVC Sump	
50	Push on PVC Well Cap	
Visual Description		
Blow Counts per 6"		
PID Values (ppm)		
Bottom of well 50 feet below land surface		

Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	Brown coarse to fine SAND, trace Silt, trace Brick, trace Gravel; dry to moist (fill)	228	5	Odor and black staining
10	Brown coarse to fine SAND, little Gravel; moist (fill)	5.7	10	
15	Brown fine to coarse SAND, little Gravel, trace Wood, trace Brick; wet (fill)	6.2	15	
20	Brown fine to medium SAND, trace Gravel, trace Silt; wet (fill)	8.9	20	Odor and black staining
25	Brown fine SAND, little Silt, trace Gravel; wet (fill)	8.7	25	Odor and black staining
30	Gray fine to medium SAND, trace Silt, trace Peat; wet	10.4	30	Odor and black staining
35	Fine SAND, trace Silt; wet	22.2	35	Black staining
40	Brown PEAT; moist	13.3	40	Odor and black staining
45	Brown fine SAND, little Silt; wet	12.7	45	Odor and black staining
50	Gray fine SAND, trace Silt; wet	17.1	50	Odor and trace free product
		728		Odor, black staining, and free product
		1067		Odor, black staining, and free product
		840		Odor, black staining, and free product



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-31						
PROJECT NO./NAME	LOCATION					
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue					
APPROVED BY	LOGGED BY					
G. Tyers	D. Moss					
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA					
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along Pathmark Wall					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 35.0				
(FT.)		DIA. 4-inch				
		GW SURFACE				
		SLOT SIZE 20-Slot				
		GRAVEL PACK #2				
6-Inch Locking Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PIO Values (ppm)	REMARKS
Depth, feet	CEMENT Cement Bentonite Grout		Brown coarse to fine SAND, trace Silt, trace Brick, trace Gravel; dry to moist (fill)			
5	Bentonite Chips		Fine SAND, trace Silt; wet (fill)	945		Odor, black staining, and sheen
10	4-inch PVC Well Casing		Brown fine to medium SAND, trace Silt, trace Brick, trace Gravel, trace Wood, trace Coal Fragments; wet (fill)	35.9		
15			Brown fine to medium SAND, some Silt, trace Gravel; wet (fill)	26.3		
20			Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill)	>2000	Odor	
25	20-Slot PVC Well Screen		Brown fine to coarse SAND, little Silt, trace Gravel; wet	886	Odor, black staining, and trace free product	
30	#2 Sand		Brown PEAT; moist	>2000	Odor and free product	
35			Brown fine to coarse SAND, little Silt, trace Gravel; wet	1349		
40			Gray to brown fine SAND, little Silt, trace coarse SAND; wet	257	Odor and trace free product	
45			Gray to brown fine SAND, little Silt, trace coarse SAND; wet	192	Odor and trace free product	
50	5-foot PVC Sump		Gray to brown fine SAND, little Silt, trace coarse SAND; wet	254	Odor and trace free product	
	Push on PVC Well Cap		Gray to brown fine SAND, little Silt, trace coarse SAND; wet	415	Odor and trace free product	
			Gray to brown fine SAND, some Silt; wet	785	Odor and trace free product	
						Bottom of well 50 feet below land surface

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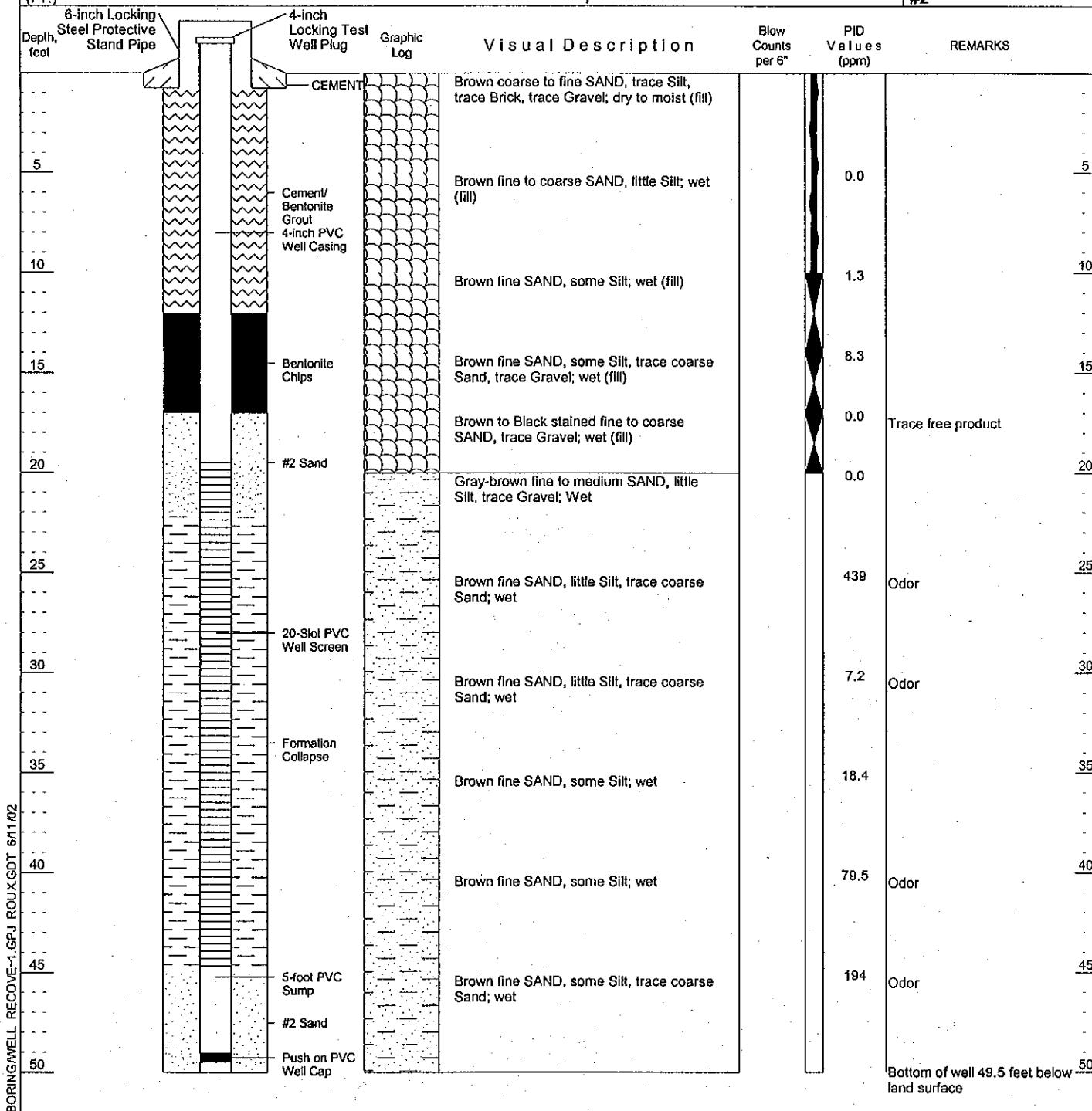
WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING			
RW-32					
PROJECT NO./NAME	92401Y03 / FC Gowanus former MGP Site	LOCATION	124-136 2nd Avenue		
APPROVED BY	LOGGED BY	Brooklyn, New York			
G. Tyers	D. Moss				
DRILLING CONTRACTOR/DRILLER	Aquifer Drilling & Testing, Inc. / L. Adams	GEOGRAPHIC AREA	On Site Along Pathmark Wall		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE	
6.25-In. / Auger	10-inches	CME-75 / HSA	2" Split Spoon	4/30/02-4/30/02	
CASING MAT./DIA.	SCREEN:	MAT. SCH 40 PVC	TOTAL LENGTH 35.0	DIA. 4-inch	SLOT SIZE 20-Slot
SCH 40 PVC / 4-inch	TYPE Slotted			GW SURFACE	GRAVEL PACK #2
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN		
6-inch Locking Steel Protective Stand Pipe	Graphic Log		/		
Depth, feet	CEMENT Cement/Bentonite Grout	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	Bentonite Chips	Brown coarse to fine SAND, trace Silt, trace Brick, trace Gravel; dry to moist (fill)			
10	4-inch PVC Well Casing	Gray-brown fine to coarse SAND, trace Silt, trace Gravel; moist (fill)	21.1		
15		Gray-brown medium SAND, trace Silt, trace Gravel, trace coarse Sand; moist (fill)	13.8	Odor, sheen	10
20		Brown coarse to fine Sand, little Silt, trace Gravel; moist (fill)	6.5	Odor, trace black staining	15
25	#2 Sand	Brown fine to medium SAND, little Silt, trace coarse Sand; wet (fill)	7.3	Odor	
30	20-Slot PVC Well Screen	Brown fine to coarse SAND, little Silt; wet	15.3		
35		Gray-brown fine SAND, little Silt, trace coarse Sand; wet	36.0	Odor, sheen	20
40			87.4	Odor, sheen	25
45		Gray-brown fine SAND, little Silt, trace coarse Sand; wet	118	Odor, sheen	30
50	5-foot PVC Sump	Brown fine SAND, some Silt; wet	67.4	Odor	35
	Push on PVC Well Cap	Brown fine to medium SAND, little Silt; wet	107	Odor	40
		Brown fine SAND, some Silt; wet	68.9	Odor	45
					Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-33		
PROJECT NO./NAME		LOCATION
92401Y03 / FC Gowanus former MGP Site		124-136 2nd Avenue
APPROVED BY	LOGGED BY	
G. Tyers	D. Moss	Brooklyn, New York
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA
Aquifer Drilling & Testing, Inc. / L. Adams		On Site Along Pathmark Wall
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-inches	CME-75 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0
(FT.)		DIA. 4-inch
		GW SURFACE
		GRAVEL PACK
		#2



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-34						
PROJECT NO./NAME	LOCATION					
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue					
APPROVED BY	LOGGED BY					
G. Tyers	D. Moss	Brooklyn, New York				
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA					
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street					
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0				
(FT.)	TOP OF WELL CASING	GW SURFACE				
	TOP & BOTTOM SCREEN	GRAVEL PACK				
	/	#2				
Depth, feet	Stand Pipe	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	6-inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Brown fine to coarse SAND, little Silt, trace Gravel; moist to wet at approximately 7 ft bbl (fill)	31.2		5
10	Cement/Bentonite Grout		Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill)	10.3		10
15	4-Inch PVC Well Casing		Brown fine sand, little Silt, trace coarse Sand; wet (fill)	17.1		15
15	Bentonite Chips		Green-gray CLAY and PEAT; moist	47.4	Thickness of peat interval interpreted from previous Site Investigation Odor	15
20			Brown fine SAND, little Silt, trace coarse Sand; wet	26.9	Odor, sheen	20
25			Gray-brown fine SAND, little Silt, trace Gravel; wet	16.6	Odor	25
30	20-Slot PVC Well Screen		Gray-brown fine SAND, some Silt; wet	24.3	Odor	30
35	#2 Sand		Gray-brown fine SAND, some Silt; wet	107	Odor, sheen	35
40			Gray-brown fine SAND, some Silt, trace coarse Sand; wet	126	Odor	40
45	5-foot PVC Sump		Brown fine SAND, little Silt; wet	134	Odor	45
50	Push on PVC Well Cap		Brown fine SAND, little Silt; wet			50
Bottom of well 49 feet below land surface						

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WELL CONSTRUCTION LOG

WELL NO. RW-35	NORTHING	EASTING				
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York				
APPROVED BY D. Moss		GEOGRAPHIC AREA On Site Along 12th Street				
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 6.25-in. / Auger	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 5/6/02-5/8/02		
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot	
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK #2	
Depth, feet	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
6-Inch Locking Steel Protective Stand Pipe			Brown fine to coarse SAND, trace silt, trace gravel, trace brick; moist (fill)			
5	CEMENT Concrete		Black fine SAND, trace Silt; moist to wet at approximately 5.5 ft bsl (fill)	>2000	>2000	Odor, trace free product
	Cement/Bentonite Grout		Black fine SAND, little Silt; wet (fill) Green-gray CLAY and PEAT; moist	>2000	>2000	Odor, free product
10	4-inch PVC Well Casing		Black to brown fine SAND and SILT; wet	872	872	Odor, free product
	Bentonite Chips		Brown to black fine SAND, some Silt, trace coarse Sand; wet	272	272	Odor
15			Gray-brown fine SAND, little Silt, trace Clay, trace Peat; wet	311	311	
	#2 Sand		Brown fine SAND, little Silt; wet	182	182	Odor
20			Brown fine SAND, little Silt; wet	158	158	Odor
	20-Slot PVC Well Screen		Brown fine SAND, little Silt; wet	552	552	Odor, trace free product
25			Brown fine SAND, little Sill, trace coarse Sand; wet	918	918	Trace free product
	Formation Collapse		Gray-brown fine to medium SAND, little Silt; wet	723	723	Trace free product
30			Gray-brown fine to medium SAND, little Silt; wet			
	5-foot PVC Sump #2 Sand					
35						
	Push on PVC Well Cap					
40						
45						
50						

Bottom of well 49 feet below land surface

BORING WELL RECOVE-1.GPJ ROUX GDT 6/11/02

WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING		
RW-36				
PROJECT NO./NAME	LOCATION			
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue			
APPROVED BY	LOGGED BY			
G. Tyers	D. Moss			
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA			
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street			
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD		
6.25-in. / Auger	10-inches	CME-75 / HSA		
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD		
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon		
ELEVATION OF:	MAT. SCH 40 PVC	TOTAL LENGTH 25.0		
(FT.)	GROUND SURFACE	TOP OF WELL CASING		
	TOP & BOTTOM SCREEN	DIA. 4-inch		
	/	GW SURFACE		
		SLOT SIZE 20-Slot		
		GRAVEL PACK #2		
Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0	6-inch Locking Steel Protective Stand Pipe			
5	4-inch Locking Test Well Plug	Brown fine to coarse SAND, trace silt, trace gravel, trace brick; moist (fill)	94.3	Odor
5	Graphic Log	Black fine SAND, some Silt; wet (fill)	199	Odor
10	CEMENT	Brown to black fine SAND, some Silt, trace Clay, trace Coal, trace Shells, trace Gravel; wet (fill)	8.7	Odor, trace free product
10		Black fine SAND, little silt; wet(fill)	35.0	
15	4-inch PVC Well Casing	Brown to black fine to coarse SAND, little Silt, trace Gravel; wet (fill)	51.2	Odor, trace free product, sheen
15		Brown to black fine SAND, little Silt, trace Wood; wet (fill)	109	Odor
20	Bentonite Chips	Brown to black fine to medium SAND, little Silt; wet (fill)	22.9	Odor
20		Grey-brown fine SAND, some Silt; wet (fill)	5.0	
25	20-Slot PVC Well Screen	Brown fine to coarse SAND; wet (fill)	>2000	Thickness of peat interval interpreted from previous Site investigation
25		Green-grey CLAY and PEAT; moist	111	Odor, trace free product
30		Grey to black fine to coarse SAND, little Silt, trace Gravel; wet		
30		Grey to black fine to coarse SAND, little Silt, trace Gravel; wet	>2000	
35	#2 Sand	Grey-brown fine to coarse SAND, little Silt, trace Gravel; wet		
35		Grey-brown fine to coarse SAND, little Silt, trace Gravel; wet	>2000	Odor, trace free product
40		Brown fine SAND, little Silt, trace coarse Sand; wet	1785	Odor, trace free product
45		Brown to light brown fine SAND, some Silt; wet	708	Odor, free Product
50	5-foot PVC Sump			
50	Push on PVC Well Cap			
				Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING
RW-37		
PROJECT NO./NAME	LOCATION	
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue	
APPROVED BY	LOGGED BY	Brooklyn, New York
G. Tyers	D. Moss	
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA	
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street	
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD
6.25-in. / Auger	10-Inches	CME-75 / HSA
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon
ELEVATION OF:	MAT. GROUND SURFACE	TOTAL LENGTH 25.0
(FT.)	TOP OF WELL CASING	DIA. 4-inch
	TOP & BOTTOM SCREEN	GW SURFACE
	/	#2
Depth, feet	Graphic Log	SLOT SIZE 20-Slot
6-inch Locking Steel Protective Stand Pipe		GRAVEL PACK
CEMENT		
4-Inch Locking Test Well Plug		
Brown fine to coarse SAND, trace Gravel, trace Silt, trace Brick; moist to wet (fill)		
5		
Cement/Bentonite Grout		
10		
4-inch PVC Well Casing		
Brown to black fine to medium SAND, little Silt, trace Gravel, trace Coal; wet (fill)	1271	Odor
Brown-green to black fine SAND, little Silt, trace Gravel, trace Wood; wet (fill)	1197	Odor
15		
Brown fine to medium SAND, trace Gravel, trace Silt; wet (fill)	380	
Brown-green fine SAND, some Silt; wet (fill)	158	
Green-grey CLAY and PEAT; moist	252	Thickness of peat interval interpreted from previous Site investigation
20		
Brown fine SAND, little Silt, trace coarse SAND, trace Gravel; wet	207	Odor
Brown fine SAND, little Silt, trace coarse SAND; wet		
25		
Brown fine SAND, little Silt, trace coarse SAND; wet	664	Odor
30		
Brown fine SAND, little Silt; wet	775	Odor
35		
Brown fine SAND, little Silt; wet	1345	Odor
40		
Brown fine SAND, little Silt; wet	1489	Odor, trace free product
45		
Brown fine SAND, little Silt; wet	1183	Odor, trace free product
50		
Push on PVC Well Cap		Bottom of well at 50 ft bbls
Formation Collapse		
5-foot PVC Sump		

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING			
RW-38					
PROJECT NO./NAME		LOCATION			
92401Y03 / FC Gowanus former MGP Site		124-136 2nd Avenue			
APPROVED BY	LOGGED BY	Brooklyn, New York			
G. Tyers	D. Moss				
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA			
Aquifer Drilling & Testing, Inc. / L. Adams		On Site Along 12th Street			
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	SAMPLING METHOD	START-FINISH DATE	
6.25-in. / Auger	10-inches	CME-75 / HSA	2" Split Spoon	5/10/02-5/10/02	
CASING MAT./DIA.	SCREEN:				
SCH 40 PVC / 4-inch	TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot
ELEVATION OF:	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK
(FT.)			/		#2
6-inch Locking Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)
Depth, feet	CEMENT				REMARKS
5			Brown fine to coarse SAND, trace Gravel, trace Silt, trace Brick; moist (fill)		
10	Cement/Bentonite Grout		Brown fine to coarse SAND, little Silt, trace Gravel; moist (fill)	35.4	Odor
	4-inch PVC Well Casing		Brown fine to coarse SAND, little Silt, trace Gravel; moist (fill)	867	Odor
15	Bentonite Chips		Brown fine SAND, little Silt, trace coarse Sand; wet (fill)	>2000	Odor
			Brown fine SAND, little Silt, trace coarse Sand; wet (fill)	6.9	15
			Green-gray CLAY and PEAT; moist		
20			Gray-brown fine to coarse SAND, little Silt, trace Gravel; wet	96.6	Thickness of peat interval Interpreted from previous Site Investigation
25			Gray-brown fine to coarse SAND, little Silt, trace Gravel; wet	381	Odor
30	20-Slot PVC Well Screen		Gray-brown fine to coarse SAND, little Silt, trace Gravel; wet	874	Odor
35	#2 Sand		Gray-brown fine to medium SAND, little Silt; wet	1341	Odor
40			Brown fine SAND, some Silt; wet	1033	Odor, trace free product
45			Gray-brown fine to medium SAND, little Silt; wet	1271	Odor, trace free product
50	5-foot PVC Sump	Push on PVC Well Cap			Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING	
RW-39			
PROJECT NO./NAME	LOCATION		
92401Y03 / FC Gowanus former MGP Site	124-136 2nd Avenue		
APPROVED BY	LOGGED BY		
G. Tyers	R. Kovacks	Brooklyn, New York	
DRILLING CONTRACTOR/DRILLER	GEOGRAPHIC AREA		
Aquifer Drilling & Testing, Inc. / L. Adams	On Site Along 12th Street		
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD	
6.25-in. / Auger	10-inches	CME-75 / HSA	
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD	
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon	
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0	
(FT.)	TOP OF WELL CASING	DIA. 4-inch	
	TOP & BOTTOM SCREEN	SLOT SIZE 20-Slot	
	GW SURFACE	GRAVEL PACK	
		#2	
Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
Brown coarse to fine SAND, trace Gravel, trace Silt, trace Brick, trace Cobbles; moist (fill)			
Brown medium to fine SAND, trace Silt, trace Gravel; moist (fill)	19.9	Slight odor	5
Brown to reddish brown fine SAND, some Silt; moist (III)	762	Slight odor	10
Brown to reddish brown fine SAND, some Silt; wet (fill)	659	Odor	15
Brown to reddish brown fine SAND, some Silt, trace coarse SAND; wet (fill) Peat		Odor	
Gray to brown medium SAND, some Silt; wet		Thickness of peat interval interpreted from previous Site investigation Odor	20
Gray-brown fine SAND, some Silt; wet	129	Odor	25
Gray-brown fine SAND, some Silt; wet	421	Odor	30
Gray-brown fine SAND, some Silt; wet	>2000	Odor	35
Gray-brown fine SAND, some Silt; wet	1200	Odor, trace free product	40
Gray-brown fine SAND, trace Silt, trace Gravel; wet	1421	Trace free product	45
		Bottom of well 50 feet below land surface	50

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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING				
RW-40						
PROJECT NO./NAME		LOCATION				
92401Y03 / FC Gowanus former MGP Site		124-136 2nd Avenue				
APPROVED BY	LOGGED BY	Brooklyn, New York				
G. Tyers	D. Moss					
DRILLING CONTRACTOR/DRILLER		GEOGRAPHIC AREA				
Aquifer Drilling & Testing, Inc. / L. Adams		On Site Along 12th Street				
DRILL BIT DIAMETER/TYPE	BOREHOLE DIAMETER	DRILLING EQUIPMENT/METHOD				
6.25-in. / Auger	10-Inches	CME-75 / HSA				
CASING MAT./DIA.	SCREEN:	SAMPLING METHOD				
SCH 40 PVC / 4-inch	TYPE Slotted	2" Split Spoon				
ELEVATION OF:	GROUND SURFACE	TOTAL LENGTH 25.0				
(FT.)		DIA. 4-inch				
		GW SURFACE				
		#2				
		SLOT SIZE 20-Slot				
Depth, feet	CEMENT	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5	6-inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Brown to black stained fine to medium SAND, little Silt, trace coarse SAND, trace Gravel; wet (fill)	17.1		
10	Cement/Bentonite Grout		Gray-brown fine SAND, some Silt; wet (fill)	10.1	Odor	5
15	4-inch PVC Well Casing		Brown fine to medium SAND, little Silt; wet (fill)	22.8	Odor	10
	Bentonite Chips		Brown fine to coarse SAND, little Silt; wet (fill)	21.3	Odor	15
20			Green-gray CLAY and PEAT; moist	29.2	Thickness of peat interval interpreted from previous Site Investigation Odor	20
25			Gray-brown fine to medium SAND, little Silt; wet	35.1		25
30	20-Slot PVC Well Screen		Gray-brown fine SAND, some Silt; wet	65.2	Odor	30
35	#2 Sand		Grey-brown fine SAND, some Silt; wet	149	Odor	35
40			Grey-brown fine SAND, some Silt; wet	78.1	Odor, trace free product	40
45			Brown fine SAND, little Silt; wet	522	Odor, trace free product	45
50	5-foot PVC Sump					50
	Push on PVC Well Cap					Bottom of well 50 feet below land surface

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WELL CONSTRUCTION LOG

WELL NO. RW-41	NORTHING	EASTING					
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue					
APPROVED BY G. Tyers	LOGGED BY D. Moss	Brooklyn, New York					
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams		GEOGRAPHIC AREA Off Site 12th Street Sidewalk					
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 5/16/02-5/16/02			
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: Type Slotted	MAT. SCH 40 PVC TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot			
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE			
			/	GRAVEL PACK #2			
Depth feet	6-Inch Locking Steel Protective Stand Pipe	4-Inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
5			CEMENT	Brown to black stained fine to medium SAND, little Silt, trace coarse SAND, trace Gravel; wet (fill)			
10			Cement/ Bentonite Grout				
15			4-inch PVC Well Casing	Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill) Brown fine to coarse SAND, trace Silt, trace Gravel; wet (fill) Brown fine to coarse SAND, trace Silt; wet (fill)	166 1526 713	Odor Odor Odor	10 15
20			Bentonite Chips	Green-gray CLAY and PEAT; moist			
25				Brown fine SAND, little Silt, trace coarse Sand; wet	23.5	Odor	20
30			20-Slot PVC Well Screen	Brown to black fine SAND, little Silt, trace coarse Sand; wet	1029	Odor	25
35			#2 Sand	Brown fine SAND, little Silt, trace coarse Sand; wet	1785	Odor, trace free product	30
40				Brown fine SAND, little Silt, trace coarse Sand; wet	>2000	Odor, trace free product	35
45				Brown fine to medium SAND, little Silt; wet	1527	Odor, trace free product	40
50			5-foot PVC Sump	Brown fine to medium SAND, little Silt; wet	>2000	Odor, trace free product	45
			Push on PVC Well Cap				50
Bottom of well 50 feet below land surface							

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WELL CONSTRUCTION LOG

WELL NO. RW-42	NORTHING	EASTING			
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue			
APPROVED BY G. Tyers	LOGGED BY D. Moss	Brooklyn, New York			
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	BOREHOLE DIAMETER 6.25-in. / Auger	GEOGRAPHIC AREA Off Site 12th Street Sidewalk			
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 5/17/02-5/17/02	
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	DIA. 4-inch GW SURFACE	SLOT SIZE 20-Slot GRAVEL PACK #2
6-inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)
Depth, feet	CEMENT				REMARKS
5	Cement/ Bentonite Grout		Brown to black stained fine to medium SAND; little Silt, trace coarse SAND, trace Gravel; wet (fill)		
10	4-inch PVC Well Casing		Brown to black fine to medium SAND, trace Gravel, trace Silt, trace Coarse Sand; wet (fill)	>2000	Odor
15	Bentonite Chips		PEAT; moist		Thickness of peat interval interpreted from previous Site 15 investigation
20			Brown fine to coarse SAND, trace Silt, trace Gravel; wet	>2000	
25			Gray-brown fine to medium SAND, little Silt, trace coarse Sand; wet	>2000	Odor
30	20-Slot PVC Well Screen		Gray-brown fine to medium SAND, little Silt, trace coarse Sand; wet	520	Odor
35			Gray-brown fine to medium SAND, little Silt, trace coarse Sand; wet	54.9	Odor, free product
40	#2 Sand		Gray-brown fine SAND, little Silt, trace coarse Sand; wet	280	Odor, free product
45			Gray-brown fine to coarse SAND, little Silt; wet	>2000	Odor, free product
50	5-foot PVC Sump		Gray-brown fine to coarse SAND, little Silt; wet	>2000	Odor, free product
	Push on PVC Well Cap				Bottom of well 50 feet below land surface

BORING WELL RECOVE-1 GPJ ROUX GDT 6/11/02

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WELL CONSTRUCTION LOG

WELL NO. RW-43	NORTHING	EASTING																																																																																																			
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue																																																																																																			
APPROVED BY G. Tyers	LOGGED BY M. Kroll	Brooklyn, New York																																																																																																			
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DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 5/20/02-5/20/02																																																																																																	
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot																																																																																																
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WELL CONSTRUCTION LOG

WELL NO. RW-44	NORTHING	EASTING			
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York			
APPROVED BY G. Tyers	DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	GEOGRAPHIC AREA Off Site 12th Street Sidewalk			
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 5/21/02-5/21/02	
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 25.0	DIA. 4-inch	SLOT SIZE 20-Slot
EL E V A T I O N O F : (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK #2
6-inch Locking Steel Protective Stand Pipe	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Blow Counts per 6"	PID Values (ppm)
Depth, feet	CEMENT				REMARKS
5	Cement/ Bentonite Grout		Brown fine to coarse SAND, trace Silt and Gravel; wet (fill)		32.7
10	4-inch PVC Well Casing		Brown gray fine to medium SAND, little Silt; wet	0.0	10
15	Bentonite Chips		Brown PEAT and green-gray Clay	3.7	15
20			Brown fine SAND, some Silt, trace coarse Sand and Gravel; wet	41.7	20
25			Brown fine SAND, some Silt, trace coarse Sand and Gravel; wet	45.3	25
30	20-Slot PVC Well Screen		Brown fine SAND, some Silt; wet	77.2	30
35	#2 Sand		Brown fine SAND, little silt, trace coarse Sand; wet	137	35
40			Brown fine SAND, some Silt; wet	87.6	40
45			Brown fine SAND, some Silt; wet		45
50	5-foot PVC Sump				Bottom of well 50 feet below land surface
Push on PVC Well Cap					

BORING WELL RECOVE-1.GPJ ROUX.GDT 6/1/02

ROUX

ROUX ASSOCIATES, INC.
Environmental Consulting
& Management

1377 Motor Parkway
Islandia, NY 11749
Telephone: 631-232-2600
Fax: 631-232-9898

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WELL CONSTRUCTION LOG

WELL NO. RW-1S	NORTHING	EASTING					
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site	LOGGED BY G. Tyers	LOCATION 124-136 2nd Avenue Brooklyn, New York					
APPROVED BY D. Moss	DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams	GEOGRAPHIC AREA Off Site 12th Street Sidewalk					
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 4/22/02-4/22/02			
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 10.0	DIA. 4-inch	SLOT SIZE 20-Slot		
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE	GRAVEL PACK #2		
Depth, feet	Flush Mount Manhole Cover	4-inch Locking Test Well Plug	Graphic Log	Visual Description	Bflow Counts per 6"	PID Values (ppm)	REMARKS
5				Concrete Brown fine to coarse SAND, little Silt, trace Gravel, trace Concrete; dry to wet at 3 feet (fill)			
10				Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill)		12.1	Odor
15				Brown fine to coarse SAND, little Silt, trace Gravel; wet (fill)		23.8	Odor
				PEAT and green-grey CLAY; moist			
							Bottom of well at 16 feet below land surface

BORING WELL RECOVE-1.GPJ ROUXGDT 6/1/02



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WELL CONSTRUCTION LOG

WELL NO.	NORTHING	EASTING		
RW-2S				
PROJECT NO./NAME 92401Y03 / FC Gowanus former MGP Site		LOCATION 124-136 2nd Avenue		
APPROVED BY G. Tyers	LOGGED BY D. Moss	Brooklyn, New York		
DRILLING CONTRACTOR/DRILLER Aquifer Drilling & Testing, Inc. / L. Adams		GEOGRAPHIC AREA Off Site 12th Street Sidewalk		
DRILL BIT DIAMETER/TYPE 6.25-in. / Auger	BOREHOLE DIAMETER 10-inches	DRILLING EQUIPMENT/METHOD CME-75 / HSA	SAMPLING METHOD 2" Split Spoon	START-FINISH DATE 4/22/02-4/22/02
CASING MAT./DIA. SCH 40 PVC / 4-inch	SCREEN: TYPE Slotted	MAT. SCH 40 PVC	TOTAL LENGTH 10.0	DIA. 4-inch SLOT SIZE 20-Slot
ELEVATION OF: (FT.)	GROUND SURFACE	TOP OF WELL CASING	TOP & BOTTOM SCREEN	GW SURFACE GRAVEL PACK #2
Depth, feet	Visual Description	Blow Counts per 6"	PID Values (ppm)	REMARKS
0	Concrete			
5	Brown fine to coarse SAND, little Silt, little Gravel, trace Concrete; dry to wet at 3 feet (fill)			
5	4-Inch PVC Well Casing			
10	Brown fine to coarse SAND, little Silt, little Gravel; wet (fill)		28.6	
10	20-Slot PVC Well Screen			
10	#2 Sand			
15	Brown fine to coarse SAND, little Silt, little Gravel; wet (fill)			
15	1-foot PVC Sump Push on PVC Well Cap		27.2	Odor and sheen
16	PEAT and green-grey CLAY; moist			
16				Bottom of well at 16 feet below land surface