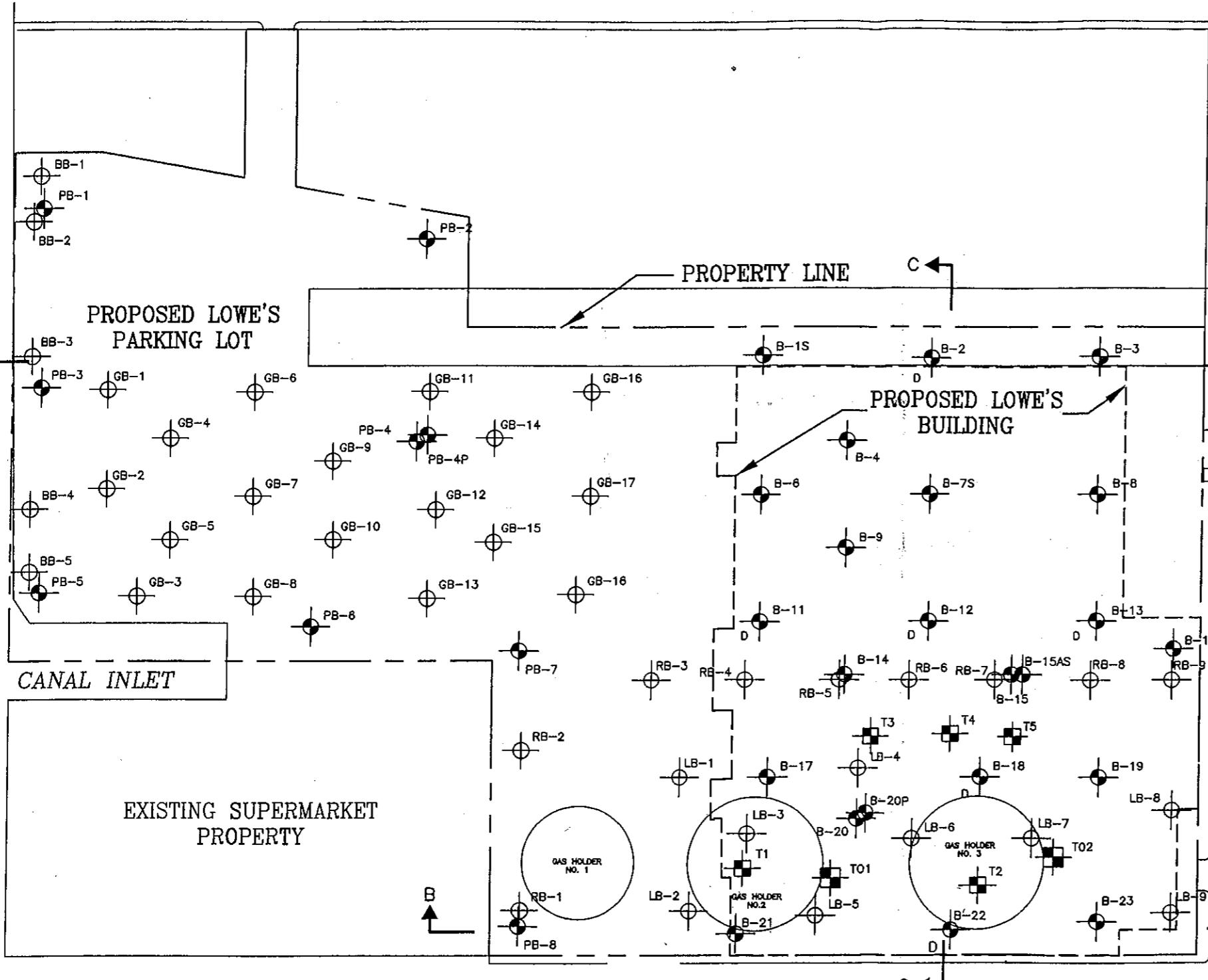


GOWANUS CANAL



NOTES:

1. FOR GENERAL NOTES SEE DRAWING NO. GS-1.
2. FOR GEOLOGIC SECTIONS SEE DRAWINGS NOS. GS-1, GS-2, AND GS-3.

GRAPHIC SCALE

30' 20' 10' 0 30' 60'

HAMILTON PL.

2ND AVENUE

LEGEND:

PROJECT MRCE BORINGS:

● B-1	- BUILDING BORING, 82 FEET DEEP
● B-2	- BUILDING BORING, 102 FEET DEEP
● PB-1	- PARKING LOT BORING, 82 FEET DEEP
● B-1S	- UNDISTURBED SAMPLE TAKEN IN BORING
● B-20P	- 30 FOOT DEEP OBSERVATION WELL INSTALLED IN BORING

2002 SUPPLEMENTAL BORINGS:

✚ T1	- BORING TO INVESTIGATE REMNANTS OF FORMER GAS HOLDERS AND OIL TANKS
------	--

PREVIOUS BORINGS:

● LB-1	- 1998 BORING
● RB-1	- 1998 BORING
● BB-1	- 1998 BORING
● GB-1	- 1998 BORING

1 12-12-02 J.C. ADDED SUPPLEMENTAL BORINGS AND  
REV. DATE BY UNDERGROUND TANK LOCATIONS  
MODIFIED LOCATIONS OF PREVIOUS BORINGS

DESCRIPTION

LOWE'S HOME CENTER

BROOKLYN NEW YORK

AKRF ENGINEERING, P.C.

NEW YORK NEW YORK

MUESER RUTLEDGE CONSULTING ENGINEERS

225 WEST 34th STREET, NEW YORK, NY 10122

SCALE	MADE BY J.C.	DATE 1-14-01	FILE NO.
GRAPHIC	CH'KO BY	DATE	9446

DRAWING NO.  
B-1

BORING  
LOCATION PLAN



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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						
SIZE AND TYPE OF BIT 4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits		NUMBER OF SAMPLES 16	COMPLETION DEPTH 80 ft.						
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH(ft) 18	WATER LEVEL (ft.) FIRST 8	UNDIST. COMPL. 24 HR. 8						
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	



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## 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	
	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



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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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Engineering and Environmental Services

## LOG OF BORING

RB3B

SHEET 1 OF 2

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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## **Engineering and Environmental Services**

## LOG OF BORING

RB3B

SHEET 2 OF 2



Engineering and Environmental Services

## LOG OF BORING

RBA

SHEET 1 OF 2

PROJECT		PROJECT NO.							
Gowanus Development		1503701							
LOCATION		ELEVATION AND DATUM							
Brooklyn, NY		Approx. el. 10.4 [BBHDD]							
DRILLING EQUIPMENT		DATE STARTED	DATE FINISHED						
CME 75 Truck Mounted Rig		10/16/98	10/19/98						
SIZE AND TYPE OF BIT		NUMBER OF SAMPLES	DIST.						
4 7/8" (0'-3') and 3 7/8" Tri-Cone Roller Bits			14						
CASING DIAMETER (in)		WATER LEVEL (ft.)	FIRST						
4 1/2" OD 4" ID		10	COMPL						
SAMPLER		DRILLING FOREMAN							
2" OD 1 3/4" ID Split Spoon (SS)		Tommy Gregorey/Chris Mitchell							
SAMPLER HAMMER	WEIGHT(lbs)	DROP(in)	INSPECTING ENGINEER						
	140	30	Gary L. Gleason						
ELEV. el. 10.4	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		
Surficial ASPHALT						<p>*New York City BC Classification numbers in parenthesis</p> <p>Black drill water w/ petroleum like material odor D = 1.5' - 5'</p>			
Black/brown f.-c. SAND, some silt, trace f. gravel/coal, wood/orgamics, and red brick (11-65)*						<p>PID = 0.2 ppm, petroleum like material odor</p>			
Black and white f. GRAVEL/COAL, trace m.-c. sand (11-65)						<p>WOH: Weight of hammer</p> <p>PID = 3 ppm, petroleum like material odor</p> <p>Over drove spoon to aid in Sample recovery</p>			
Black and white f. GRAVEL/COAL, trace m.-c. sand and glass (11-65)						<p>PID = 4 ppm, petroleum like material odor</p> <p>Added mud D = 15'</p>			
Gray silty CLAY, trace shell and f. gravel (11-65)						<p>PID = 0.4 ppm, petroleum like material odor</p>			
Gray silty CLAY, trace shell (11-65)						<p>PID = 7.2 ppm, petroleum like material odor</p>			
Gray SILT, trace clay, f.-m. sand, f.-m. gravel/coal, and shell (10-65)						<p>PID = 8 ppm, slight petroleum like material odor</p>			
Brown f.-m. SAND (7-65)						<p>PID = 190 ppm, visible petroleum like material w/ odor</p>			
Brown f.-m. SAND, trace silt and coal (7-65)						<p>PID = 2.5 ppm, petroleum like material</p>			

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		



Engineering and Environmental Services

## LOG OF BORING

RB5

SHEET 1 OF 2

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		N-VALUE BLOWS PER FT	
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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## **Engineering and Environmental Services**

## **LOG OF BORING**

RB5

SHEET 2 OF 2

PROJECT Gowanus Development		PROJECT NO. 1503701								
LOCATION Brooklyn, NY		ELEVATION AND DATUM Approx. el. 10.6 [BBHDD]								
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
				S9 S9	SS SS	18 18	PENETR. (in) 13 13 14 15	RESIST. BL/6in 10 12 15 18	N-VALUE BLOWS PER 5ft 27	
	Gray/brown f. SAND, trace silt (8-65)									PID = 3.9 ppm, petroleum like material odor
	Brown f.-m. SAND, trace silt (7-65)									PID = 0.5 ppm, slight petroleum like material odor
	Brown SILT, trace f. sand and clay (10-65)									PID = 0.3 ppm, slight petroleum like material odor
	Brown f.-m. SAND, trace silt (7-65)									PID = 0.4 ppm, petroleum like material odor Spoon refusal D = 59' Major rig chatter D = 60'
	Red brown f.-c. SAND, some f.-m. gravel, trace silt and clay (6-65)									Rig chatter D = 60' - 63' PID = 0.2 ppm, slight petroleum like material odor
	Red brown f.-c. SAND, trace f.-m. gravel, silt, and clay (7-65)									Rig chatter D = 63' - 68'
	Red brown f.-c. SAND, trace silt, f.-m. gravel, and clay (6-65)									Rig chatter D = 68' - 73' PID = 0.4 ppm, slight petroleum like material odor
	Red brown f.-c. SAND, trace silt, f. gravel, and clay (6-65)									PID = 0.1 ppm Major rig chatter D = 76' - 77'
	Boring terminated D = 79.5'									Spoon refusal D = 79.5' PID = 0 ppm, slight petroleum like material odor
										Borehole grouted upon completion



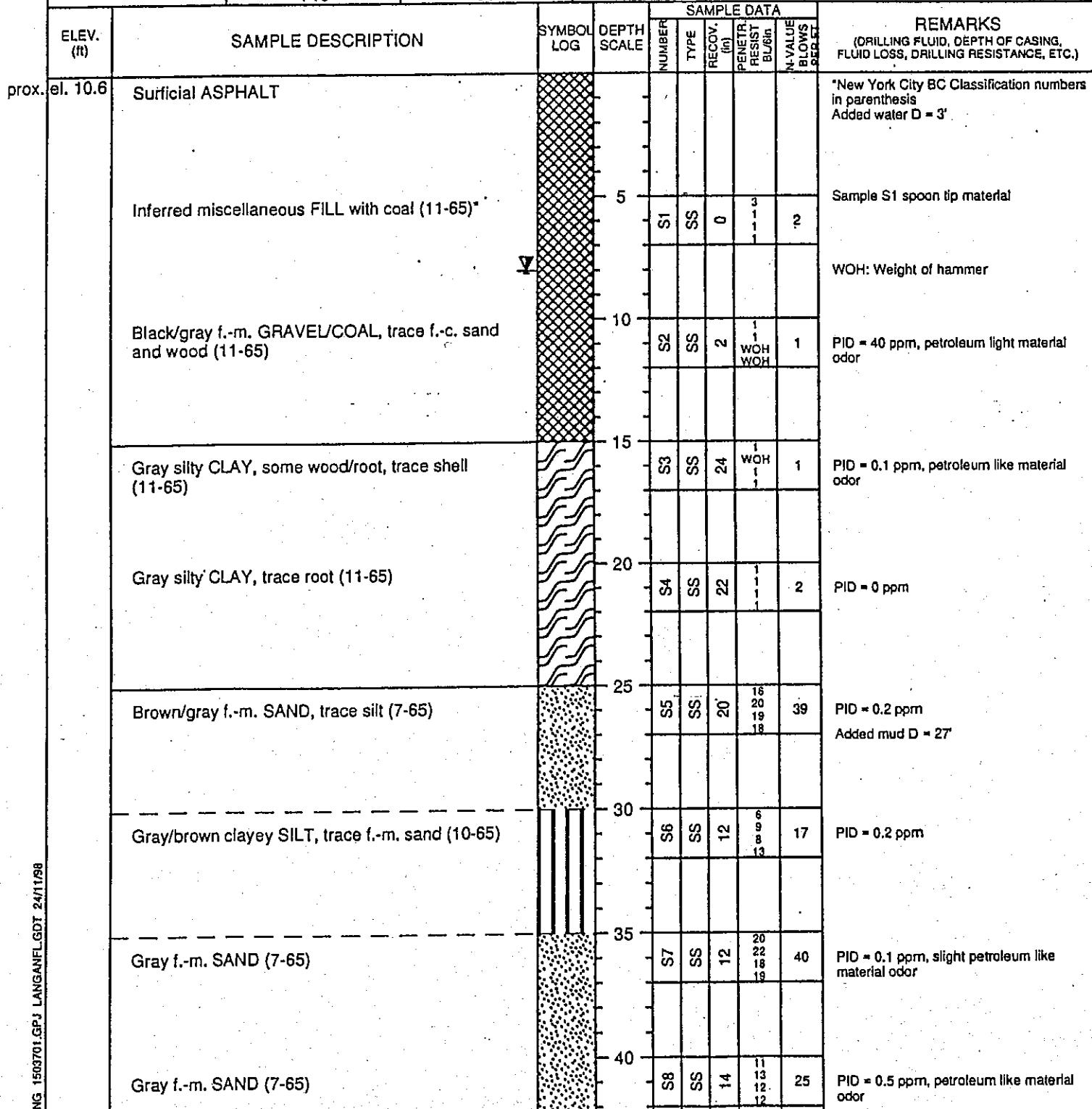
Engineering and Environmental Services

## LOG OF BORING

RB6

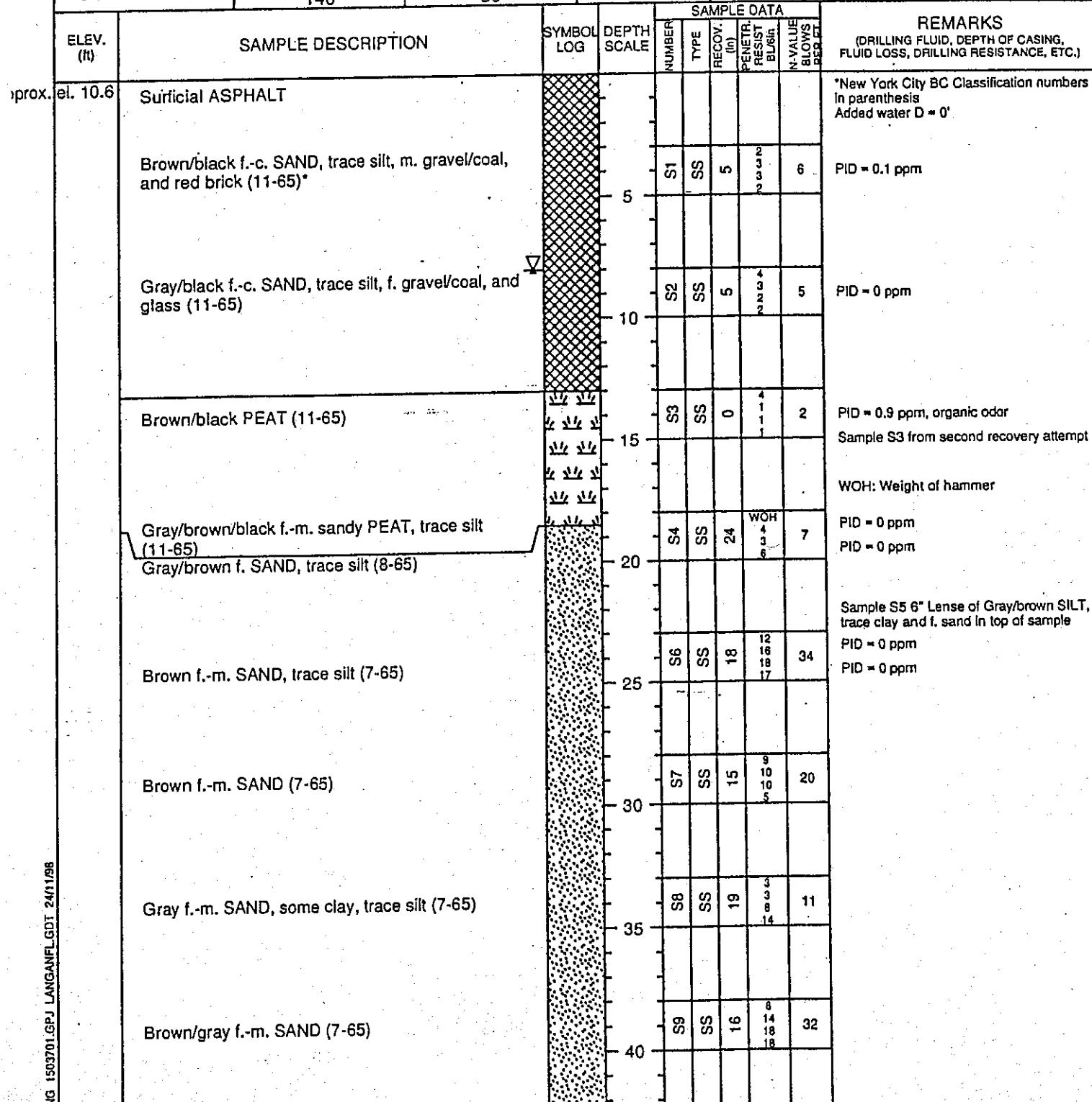
SHEET 1 OF 2

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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## **Engineering and Environmental Services**

## **LOG OF BORING**

RB7

SHEET 2 OF 2

PROJECT Gowanus Development		PROJECT NO. 1503701	
LOCATION Brooklyn, NY		ELEVATION AND DATUM Approx. el. 10.6 [BBHDD1]	
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE
			SAMPLE DATA
			NUMBER SS RECOV. (in) 16 PENETR. RESIST ALGIN N-VALUE BLOWS PER FT
	Gray f.-m. SAND (7-65)		S10 45 50 55 60 65 70 75 80 85 90
	Gray/brown f.-m. SAND, trace silt (7-65)		S11 10 9 7 6 16 48
	Brown/gray f.-m. SAND, trace silt (7-65)		S12 17 21 27 30
	Brown/gray f.-c. SAND, trace f.-m. gravel and silt (6-65)		S13 27 40 31 33 71
	Red brown silty f.-c. SAND, trace f.-m. gravel (6-65)		S14 19 29 38 30 67
	Red brown f.-c. SAND, trace f.-m. gravel, silt, and clay (6-65)		S15 50 95 28 37 123
	Red brown f.-c. SAND, trace silt, clay, and f.-c. gravel (6-65)		S16 37 48 33 40 81
	Red brown f.-c. SAND, trace f.-c. gravel, silt, and clay (6-65)		S17 21 37 62 48 99
	Boring terminated D = 80'		
			Sample S11 12" Lense of Gray/brown silty CLAY, trace f. sand in bottom of sample
			Rig chatter
			Rig chatter
			Borehole grouted upon completion



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## LOG OF BORING

RB8

SHEET 1 OF 2

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	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	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	3.5	5					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						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											
	WOOD, some black/gray f.-c. sand and f. gravel/coal, trace silt and glass (11-65)				5	3	3	3	3											
	Gray/brown f. sandy SILT, trace roots, shell, and clay (11-65)				6	3	3	3	3											
	Brown f.-m. SAND (7-65)				7	3	3	3	3											
	Brown f.-m. SAND (7-65)				8	3	3	3	3											
Gray f.-m. SAND, trace silt and clay (7-65)		9	20	19	17	17	18	36				Sample S9 6" Lense brown clayey SILT, trace f. sand (10-65) in bottom of sample								
Brown/grey f.-m. SAND (7-65)		10	5	7	8	8	11	12				PID = 0.1 ppm								
Gray f.-m. SAND, trace silt and clay (7-65)		11	8	11	13	13	20	24				PID = 0.1 ppm								
Brown/grey f.-m. SAND (7-65)		12	6	8	7	6	16	15				PID = 0.3 ppm								



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LOG OF BORING

RB8

SHEET 2 OF 2

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
	Brown/gray f.-m. SAND, trace silt (7-65)	50	S13 SS 19 3 4 5	PID = 0.3 ppm
	Brown/gray clayey SILT, trace f.-m. sand (10-65)	55	S14 SS 0 40 39 39 35	PID = 0.1 ppm
	Inferred Red brown f.-c. SAND, some f.-m. gravel, trace silt and clay (6-65)	60	S15 SS 4 27 43 37 39	Rig chatter D = 53' Sample S14 spoon tip material
	Red brown f.-c. SAND, some silt, trace f.-m. gravel and clay (6-65)	65	S16 SS 4 26 33 34 41	Rig chatter D = 55' - 60'
	Red brown silty f.-c. SAND, some f.-c. gravel, trace clay (6-65)	70	S17 SS 3 29 65 54 76	PID = 0 ppm
	Red brown f.-m. GRAVEL, some f.-c. sand, trace silt (6-65)	75	S18 SS 2 29 58 52 73	Rig chatter D = 60' - 65'
	Red brown f.-m. GRAVEL, trace f.-c. sand, silt, and clay (6-65)	80	S19 SS 3 31 32 47 36	
	Red brown f.-c. GRAVEL, some f.-c. sand, trace silt and clay (6-65)	85		
	Boring terminated D = 82'	90		Borehole grouted upon completion

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	

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	12 16	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	17 25 26 28	116	Spoon refusal D = 67'			
	Red brown f.-c. SAND, some f.-m. gravel and silt, trace clay (6-65)			70	S17	SS	21 49 67 100/6"	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	5 14	111	Rig chatter			
	Gray f.-c. GRAVEL and red brown f.-c. SAND, trace silt and clay (6-65)			80	S19	SS	40 53 58 39 66 83 100/5"	183/11	Spoon refusal D = 81.5'	Borehole grouted upon completion		
	Boring terminated D = 82'			85								
				90								

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	N. VALUE BLOWS	
	Brown f. sandy SILT, trace clay (10-65)		45	S13	SS	17	17	17	20	32	PID = 570 ppm
	Brown SILT, trace clay and f. sand (10-65)		50	S15 S1	SS	15	14	15	22	37	PID = 540 ppm
	Brown f. SAND, trace silt (8-65)		55	S16	SS	14.5	11	16	17	32	PID = 650 ppm
	Brown f. SAND, trace m. sand (7-65)		60	S17	SS	13.5	15	22	23	42	Trace visible petroleum like material
	Gray f. SAND, trace m.-c. sand (7-65)		65	S18	SS	13	19	23	25	46	PID = 710 ppm
	Brown f. sandy SILT, trace clay (10-65)		70	S19	SS	15.5	22	28	28	57	Brown/gray SILT, trace f. sand and clay in SS tip
	Red brown f. sandy SILT, some f. sand, trace clay (10-65)		75	S20	SS	13	51	55	100/5	68/11	PID = 530 ppm
	Inferred Red brown f.-c. SAND, trace f.-m. gravel (7-65)		80	S21	SS	24	19	41	36	77	Trace visible petroleum like material near bottom of SS tip
	Inferred BOULDER (6-65)		85								Minor on/off rig chatter D=60.5'-63'
	Red brown f. SAND, trace silt, f. gravel, m.-c. sand, and clay (6-65)		90								PID = 1240 ppm
	Inferred BOULDER (6-65)										PID = 950 ppm
	Red brown and brown f.-m. SAND, trace f.-m. gravel, c. sand, silt, and clay										On/off rig chatter D=73'-74.5'
	Boring terminated D=81'										Slow/hard drilling D=74.5'-75.5' w/ rig chatter



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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	22 24 24	52	New York City BC Classification numbers In parenthesis Started drilling w/ water PID = 650 ppm On/off rig chatter D = 0.75'-5'
0.0	Black and brown c. SAND and f. GRAVEL/COAL, trace f.-m. sand and silt (11-65)				5		S2	SS	13	10 9 7	18	PID = 102 ppm
	Gray silty CLAY, some brown peat, trace f. sand (11-65)				10		S4	SS	8	2 1 4 1	5	PID = 9 ppm PID = 10.2 ppm
	Brown/black f. SAND, some silt, trace clay (11-65)				15		S5	SS	18	4	6	PID = 19.6 ppm PID = 400 ppm Added mud D = .15'
	Brown f. sandy SILT, trace clay (11-65)				20		S8	SS	24	1 3 3	8	PP = 0.6 - 1.25 tsf PID = 19.7 ppm
	Gray/brown PEAT, trace f. sand, silt, and clay (11-65)				25		S9	SS	15	4 5 7	8	PID = 40 ppm
	Gray silty CLAY, trace organics/root (11-65)				30		S10	SS	19.5	11 10 8 7	18	PID = 9 ppm
	Gray f. SAND, some clay, trace silt (8-65)				35		S11	SS	18	14 15 22 24	38	PID = 330 ppm Visible petroleum like material
	Brown f.-m. sandy SILT, trace clay (10-65)				40		S12	SS	18	5 12 10	19	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 15 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



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		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	48	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	8	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	5	PID = 155 ppm Slightly visible petroleum like material
	Brown SILT, trace clay, f. sand, and f. gravel (10-65)		S5	SS	2.5	102/4.5	Refusal	Added mud D = 15'
	Brown/gray SILT, trace clay and f. sand (10-65)		S6	SS	7	6 10 8 13	18	PID = 55 ppm Slightly visible petroleum like material
	Brown f. SAND, trace silt and clay (8-65)		S7	SS	11	5 8 7	15	Refusal D = 20' Hard drilling D = 20.25' - 20.75'
	Brown f. sandy SILT, trace clay (10-65)		S8	SS	10	3 4 4 12	8	PID = 340 ppm Visible petroleum like material Added mud D = 20'
			S9	SS	14	7 12 12 14	24	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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## Engineering and Environmental Services

## LOG OF BORING

LB4

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 12/3/98	DATE FINISHED 12/7/98						
SIZE AND TYPE OF BIT HW and NQ Rock Cores and Tri-Cone Roller Bits		NUMBER OF SAMPLES 16	UNDIST. —						
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH (ft) 24	WATER LEVEL (ft) ▼	COMPL. ▼						
SAMPLER Standard Split Spoon (SS) or Shelby Tube (ST)	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. %	PENETR. IN	RESIST. BLK	
approx. el 11 0.0	5.5" CONCRETE w/ wire mesh Inferred miscellaneous FILL (11-65) Black/brown f.-c. SAND, trace silt, red brick, l.-c. gravel/coal (11-65) Very c. CONCRETE			S1	SS	8	17 62 BSI 1.5	57/7.5	*New York City BC Classification numbers in parenthesis Started coring with water Spoon refusal D=2' PID = 400 ppm COBBLE fragment in D=1'-3' SS tip  Lost majority of water D=2'-12'
									Hard/slow drilling D=12'-13.5' Broke through concrete D=13.5'
	Inferred CONCRETE								WOOD in wash D=13.5'-25' w/ slow drilling
	Inferred WOOD (11-65)								One bend/dent in end of tube D=17'-19' PID = 58 ppm Petroleum like material odor
	WOOD FIBERS, trace gray f. sand (11-65)			S2	ST	5	PUSH PUSH PUSH PUSH		Added mud D=20' PID = 7.2 ppm Petroleum like material odor
	WOOD FIBERS (11-65)			S3	SS	3	12 10 10 11	20	Petroleum like material odor D=25'-25.5' PID = 5.4 ppm
	WOOD FIBERS (11-65) Brown I. SAND, trace silt and clay (8-65)			S4	SS	14	18 22 23 24	44	PID = 148 ppm Visible petroleum like material Visible petroleum like material
	Brown f. SAND, trace silt (8-65)			S5	SS	10	13 28 28 15	40	PID = 90 ppm Visible petroleum like material Visible petroleum like material
	Brown I. SAND, trace silt (8-65)			S6	SS	7	8 8 7	16	PID = 9.2 ppm
	Brown f. SAND, trace m. sand, silt, and clay (7-65)			S7	SS	14.5	10 10 12 12	22	

PROJECT		PROJECT NO.								
Loews @ Gowanus		1531601								
LOCATION		ELEVATION AND DATUM		NUMBER	TYPE	RECOV. (%)	PENETR. BLDG	RESIST BLDG	N-VALUE BLDG	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE	RECOV. (%)	PENETR. BLDG	RESIST BLDG	N-VALUE BLDG	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'

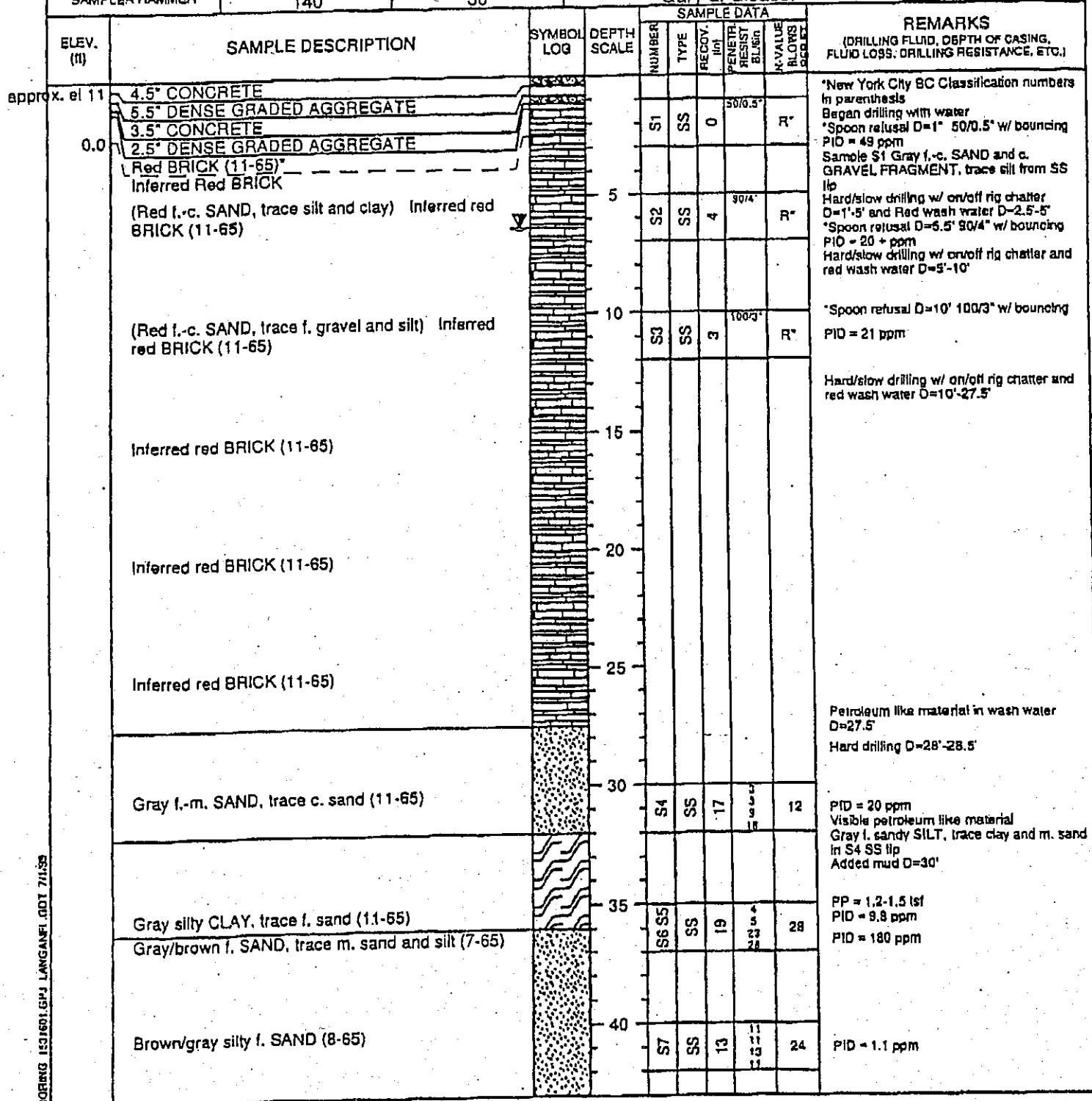


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LOG OF BORING LB5

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	





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Engineering and Environmental Services

## LOG OF BORING

LB5

SHEET 2 OF 2

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. BLK	BLK	N-VALUE BLOCKS BLK		
	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					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					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		PROJECT NO.				
Loews @ Gowanus		1531601				
LOCATION		ELEVATION AND DATUM				
Brooklyn, NY		approx. el 11 [BBHDD]				
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE			
NUMBER	TYPE	RECOV. (lb)	PENETR. (in)	RESIST. BUHN	N-VALUE BLOWS DESCRIPT.	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
45	S11	SS	14	16 19 13 14	32	PID = 1.4 ppm
50	S12	SS	18	20 24 25 22	49	PID = 1.2 ppm
55	S13	SS	0	162/4	R*	Rig chatter D=53.75'-55' "Spoon refusal D=55' Rig chatter D=55'-55.25'
60	S14	SS	11	150 50 51 65	109	Minor rig chatter D=58.75'
65	S15	SS	6	46 39 26 26	65	PID = 400 ppm Slow/hard drilling D=62.25'-62.5' On/off rig chatter D=60'-64'
70	S16	SS	19	82 100 93 52	193	PID = 155 ppm On/off rig chatter D=65'-70'
75	S17	SS	14	100 88 77 56	165	PID = 410 ppm Minor on/off rig chatter D=70'-75'
80						PID = 380 ppm
85						Borehole grouted upon completion
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 [BBHDD]	
DRILLING EQUIPMENT Davey Kent DK50RA Track Rig		DATE STARTED 11/18/98	DATE FINISHED 11/19/98
SIZE AND TYPE OF BIT HW and NQ Rock Cores and Tri-Cone Roller Bits		NUMBER OF SAMPLES 14	COMPLETION DEPTH 55 ft.
CASING DIAMETER (in) 4 1/2" OD 4" ID	CASING DEPTH (in) 19.5	WATER LEVEL (ft.) V	UNDIST.      CORE -----
SAMPLER 2" OD 1 3/4" ID Split Spoon (SS)		FIRST V	COMPL.      24 HR. V
SAMPLER HAMMER	WEIGHT (lbs) 140	30	INSPECTING ENGINEER Gary L. Gleason
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE
approx. 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) Red BRICK, some c. sand, trace f.-m. sand and gravel (11-65) <u>CONCRETE</u> Inferred reinforced CONCRETE Gray c. SAND, trace coal, concrete, red brick, gray f.-m. sand, f.-m. gravel, and glass (11-65)		NUMBER TYPE RECOV. (%) PENETR. BLKIN N-VALUE BLOWS
0.0			S1 SS 45 12 9 10 24 19
0.0			S2 SS 1 25/5 R*
			S3 SS 3 9 7 4 11
			S4 SS 1 5 3 2 4 5
			S5 SS 9 2 3 2 5 5
	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)		S6 SS 6 4 4 6 5 10
	Brown PEAT (11-65)		S7 SS 6 29 31 33 21 64
	Brown f. sandy SILT, trace clay (10-65)		S8 SS 5 WOH 5 8 13
	Brown f.-m. SAND, trace silt (7-65)		S9 SS 17 4 3 3 6 6
	Gray/brown SILT, some f. sand, trace m. sand and clay (10-65)		S10 SS 19 2 4 2 5 6
	Brown/gray SILT, some clay, trace f. sand (10-65)		S11 SS 19 2 4 2 5 6
	Brown/gray silty CLAY, trace f. sand (9-65)		
	Brown/gray silty CLAY, trace f. sand (9-65)		



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## LOG OF BORING

LB8

SHEET 2 OF 2

PROJECT	Loews @ Gowanus	PROJECT NO. 1531601						
LOCATION	Brooklyn, NY	ELEVATION AND DATUM approx. el 11 [BBBHDD]						
ELEV. (ft)	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	NUMBER	TYPE REC'D. SRI	PENETRA- TION RESIST. BLK/M	N-VALUE BLWS DIA/FT	REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
	Brown/gray silty CLAY, trace f. sand (9-65)		45	S12	SS	19 2 WOH 1	1	PP = No reading - 0.2 tsf PID = 810 ppm
	Brown/gray silty CLAY, trace f. sand (9-65)		50	S13	SS	WOH WOH 9 17	9	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	27	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.		CORE ----	
CASING DIAMETER (in) 4 1/2" OD 4" ID		CASING DEPTH(h) 13.5		WATER LEVEL H		FIRST V		COMPL. V	
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	
	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)								PID = 0 ppm PID = 0 ppm
	Brown SILT, trace clay and f. sand (10-65)			S5	SS	10.5	5 7 12 10	19	PID = 38 ppm
	Inferred Brown/gray f.-m. SAND, trace silt (7-65)			S6	SS	0	27 32 27 31 24 26 39	59	PID = 0 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)			S7	SS	17	17	65	PID = 0 ppm
	Brown f.-m. SAND, trace silt and clay			S8	SS	7	11 11 9 10	20	PID = 0 ppm
	Gray/brown silty CLAY, trace f.-m. sand (9-65)			S9	SS	17.5	5 4 6 5	10	PID = 0.2 ppm
	Brown/gray f.-m. SAND, trace silt (7-65)			S10	SS	10.5	16 15 10 10	20	PID = 0 ppm



## LOG OF BORING LB9

SHEET 2 OF 2

PROJECT		PROJECT NO.									
LOCATION		ELEVATION AND DATUM									
ELEV. (ft)	SAMPLE DESCRIPTION	DEPTH LOG	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)	
				NUMBER	TYPE	REC'D. TEST	PENETRAT. TEST	RESIST. TEST	N-VALUE	BLows	REMARKS
	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								

PROJECT		PROJECT NO.	
Loews @ Gowanus		1531601	
LOCATION		ELEVATION AND DATUM	
Brooklyn, NY		approx. el 11 [BBHDD]	
DRILLING EQUIPMENT		DATE STARTED	DATE FINISHED
Davey Kent DK50RA Track Rig		11/19/98	11/24/98
SIZE AND TYPE OF BIT		COMPLETION DEPTH	
HW and NO Rock Cores and Tri-Cone Roller Bit		77 ft.	
CASING DIAMETER (in)		NUMBER OF SAMPLES	OIST.
4 1/2" OD 4" ID		CASING DEPTH (in)	UNDIST.
		7	CORE
WATER LEVEL (ft.)		WATER LEVEL	CCMPL.
		FIRST ▽	24 HR. ▽
SAMPLER		DRILLING FOREMAN	Gus Suri/Mika Chizmar
Standard Split Spoon (SS) or Shelby Tube (ST)		INSPECTING ENGINEER	Gary L. Gleason
SAMPLER HAMMER	WEIGHT (lbs)	DROP (in)	
	140	30	
ELEV. (ft)	SAMPLE DESCRIPTION		REMARKS (DRILLING FLUID, DEPTH OF CASING, FLUID LOSS, DRILLING RESISTANCE, ETC.)
approx. el 11	5" CONCRETE w/ wire mesh		"New York City BC Classification numbers in parenthesis
	5" CONCRETE		Started coring w/ water
	Inferred miscellaneous FILL (11-65)*		Lost some water O = 1.5'
	Gray/black f.-c. SAND, some silt (11-65)		PID = 400 ppm
0.0	Black SILT/PETROLEUM LIKE MATERIAL, some c. sand, and white cement fragments, trace f.-m., sand and clay (11-65)		Petroleum like material odor
0.0	Piece of STEEL		On/Off rig chatter O = 1.5' - 4.5'
0.0	Inferred miscellaneous FILL (11-65)		Petroleum like material in wash O = 4.75'
0.0	0.5" STEEL		
0.0	CONCRETE		
	Petroleum like material treated WOOD (11-65)		
	Inferred WOOD (11-65)		
	Inferred Brown PEAT, some silt (11-65)		
0.0	Inferred Brown PEAT, some silt (11-65)		
0.0	Brown PEAT, some silt (11-65)		
	Brown/gray f. SAND, some silt (8-65)		
	Brown f. SAND, some silt (8-65)		
0.0	Brown f. SAND, trace silt and clay (8-65)		
0.0	Brown f.-m. SAND, trace silt (7-65)		
	Brown SILT, trace clay and f. sand (10-65)		
	Gray CLAY, some silt (9-65)		
	Gray/brown CLAY, some silt, trace f. sand (9-65)		
0.0	S1 SS 7 24 101		
0.0	S2 SS 2 2 1 3		
0.0	S3 SS 0 WOR WOR WOR WOR		
0.0	S4 SS 0 WOH WOH WOH WOH		
0.0	S5 T1 ST 19 24 PUSH PUSH PUSH PUSH		
0.0	S6 SS 19 1 3 3 3 4 8		
0.0	S8 SS 11 34 42 33 40 75		
0.0	S8 S7 SS 7 18 18 19 11 12 30		
0.0	S10 SS 18 4 3 2 5		
0.0	S11 SS 17 2 2 4 4		
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**Langan**  
Engineering and Environmental Services

LOG OF BORING **LB7**

SHEET **2** OF **2**

PROJECT LOCATION	SAMPLE DESCRIPTION	SYMBOL LOG	DEPTH SCALE	SAMPLE DATA						REMARKS (DRILLING FLUID, DEPTH OF CASING, PLUG LOSS, DRILLING RESISTANCE, ETC.)
				NUMBER	TYPE	REC'D. (ft)	PENETR. (ft)	RESIST. ALSO	N-BLOWS 60' C.	
Loews @ Gowanus	Brown CLAY, some silt, trace f. sand (9-65)			45	S12	SS	13	4 4 4 4	8	PP = 0.6 - 0.65 lbf PIO = 170 rpm
Brooklyn, NY	Brown f. SAND, trace silt (8-65)			50	S13	SS	14	12 12 12 12	56	PIO = 580 ppm Rig chatter D = 52.25' - 53'
	Brown f.-c. SAND, trace silt and f.-m. gravel (6-65)			55	S14	SS	10.5	22 28 24 24	44	PIO = 710 ppm
	Red brown f.-c. SAND, trace silt and f.-m. gravel (6-65)			60	S15	SS	6	10 38 31 22	67	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 17	64	PIO = 40 ppm On/off rig chatter D = 60' - 65'
	Red brown f.-c. SAND, same f.-m. gravel, trace silt (6-65)			70	S17	SS	7.5	45 26 22 21	46	PIO = 640 ppm On/off rig chatter D = 65' - 70'
	Red brown f.-c. SAND, some f.-m. gravel, trace silt (6-65)			75	S18	SS	8.5	38 28 22 25	50	PIO = 20 ppm On/off rig chatter D = 70' - 75'
	Boring terminated D = 77'			80						PIO = 540 ppm Borehole grouted upon completion
				85						
				90						