

APPENDIX N
Injection Well and Post-Remediation Monitoring Well
Construction, Injection, Sampling and
Decommissioning Logs

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-28-19

Start Time _____

Langan Crew VG

Injection Area

End Time

Well / Point TP-01

Total Volume _____
(gallons) _____

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

Start Date 10-30-19

Start Time

Langan Crew 

Injection Area

End Time

Well / Point IP-02

Total Volume _____
(gallons)[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-24-19

Start Time _____

Langan Crew 

Injection Area

End Time

Well / Point IP-03

Total Volume _____
(gallons)

Date	Time	Batch	Flow Rate (1 min Interval)	Totalizer Reading (1)	Totalizer Reading (2)	Totalizer Reading (3)	Totalizer Reading (4)	Cumulative Volume	Pressure	Interval	Note
mm/dd	hh:mm	#	gpm	gallon	gallon	gallon	gallon	gallons	psi	ft bgs	
10-24-19	1142~	8	4.10					98.6	58		
	1240	11	2.68					232.46	100+		
	1340	14	3.26					428.06	100+		
	1440	16	3.16					617.66	100+		
	1520	17	3.46					747.30	100+		
10-25-19	1030	6	2.58					152.43	75		
	1230	9	3.54					363.84	70		
	1330	12	3.70					586.83	20		
	1330	13	3.70					684.43	30		684 (532)
	1410										
10-28-19	0840	1	3.34					-			
	0940	3	3.64					132			
	1040	5	2.66					393.39	100		
	1140	8	2.87								
	1215	8	2.86								
	1240	10	2.20					654.47	80		
	1440	13	1.18					777.45	90		
								821.38			
10-29-19	0915	2	1.55					153.80	100+		
	1025	6	1.64					282.85	100+		
	1200	10	1.58					398.10	100+		end

Note
psi - pounds per square inch
ft bgs - feet below groundsurface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-28-19

Start Time _____

Langan Crew _____

Injection Area

End Time

Well / Point TP-04

Total Volume _____
(gallons)

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

[illegible]

Page 1 of 1

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-30-19

Start Time _____

Langan Crew IG

Injection Area _____

End Time _____

Well / Point IP-07

Total Volume _____
(gallons) _____

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below groundsurface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-30-19

Start Time _____

Langan Crew 

Injection Area

End Time

Well / Point IP-08

Total Volume _____
(gallons)

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below groundsurface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-24-19

Start Time _____

Langan Crew

Injection Area

End Time _____

Well / Point IP-09

Total Volume
(gallons)

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

Table 2
805-825 Atlantic Ave
Brooklyn, NY
Langan Project No. 170384501

Start Date 10-23-19

Start Time _____

Langan Crew TG

Injection Area _____

End Time _____

Well / Point IP-11

Total Volume _____
(gallons)

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below groundsurface

Start Date 10-25-19

Start Time 11:20 am

Langan Crew TG

Injection Area _____

End Time 11:59:59 AM

Well / Point IP-10

Total Volume _____
(gallons)

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

10-29-19

Start Date	10-29-19
Injection Area	IP-12
Well / Point	IP-12

Start Time _____

End Time _____

Total Volume
(gallons) _____

Langan Crew _____

[illegible]

Note
psi - pounds per square inch
ft bgs - feet below ground surface

Start Date 10-23-19

Start Time _____

Langan Crew TG

Injection Area _____

End Time

Well / Point IP-13

Total Volume
(gallons)

Date	Time	Batch	Flow Rate (1 min Interval)	Totalizer Reading (1)	Totalizer Reading (2)	Totalizer Reading (3)	Totalizer Reading (4)	Cumulative Volume	Pressure	Interval	Note
mm/dd	hh:mm	#	gpm	gallon	gallon	gallon	gallon	gallons	psi	ft bgs	
10-23-19	0930	4	3.57	—	—	—	—	88.98	100 +		
	1036		3.62					266	100 +		2125 gal
	1125										
10-24-19											(1,178 gal)
	0840								71		
	0940	3	2.28						75		
	1040	6	4.84						100 +		595 total
	1140	8	2.68						80		452.40
	1240	11	2.79						100 +		613.20
	1340	14	3.05						100 +		780.60
	1520	17	3.46						100 +		964.20
											(1068)
10-25-19	0830	1	5.13								
	0930	3	3.27						100 +		196.20
	1030	6	3.82						100 +		425.40
	1132	9	3.54						100 +		637.80
	1230	11	3.49						100 +		847.20
	1330	13	3.30						90		1045.20
	1410	15	2.43						50		(1123.00) 1123
10-28-19	0840	1	3.03								
	0940	3	2.82					165.03	40		
	1040	5	3.02					327.50	100 +		
	1140	6	1.78					628.92	80		
	1215	8	2.57					6			
	1327	10	2.03					657.03	80		(689.03) end

Note
psi - pounds per square inch
ft bgs - feet below ground surface

11/19/2019

REGENESIS Proposal No. giosu63042

Triton Construction Company
30 East 33rd Street - 11th Floor | New York, NY 10016

SUBJECT: Application Summary Report for Remedial Services at the 550 Clinton Avenue Site

Triton Construction Company,

REGENESIS Remediation Services (RRS) has recently completed an *in-situ* injection application of PlumeStop Liquid Activated Carbon[®] (PlumeStop) at the 550 Clinton Avenue site located in Brooklyn, NY. The goal of the remedial application was to remediate petroleum based volatile organic compounds (VOCs). RRS employed *in-situ* sorption and enhanced biodegradation technologies to meet remediation goals.

RRS mobilized a support pickup truck, injection trailer, and personnel to the site to begin work over 12 days on 10/22/2019. RRS staffed this project with an experienced Project Supervisor who ensured a safe, successful injection application. After the remedial agent was applied, RRS flushed each well to ensure no particulate buildup occurs within the monitoring well.

Please review the attached application summary page, injection log, photo log, and site map for more details on the application.

RRS appreciates the opportunity to work at this site with Triton Construction Company. RRS will be available to interpret the field data as it is collected or answer any questions. If you need additional information regarding the application process or attached field notes, please contact Will Clogan at 724.766.1811 or Joshua Grasser at 267.473.0360.

Sincerely,



Joshua Grasser
Project Supervisor
REGENESIS Remediation Services



Will Clogan
East Region Project Manager
REGENESIS Remediation Services

cc: Glenn Iosue:glosue@regenesiS.com; Dave Peterson:dpeterson@regenesiS.com;

Application Summary Page



OVERVIEW

Client: Triton Construction Company
Client PM: Josh Brooks
RRS Project Manager: William Clogon
RRS Project Supervisor: Joshua Grasser

Site Address: 550 Clinton Avenue, Brooklyn, NY 11238
Project Name: 550 Clinton Avenue
Project Dates: 10/22/2019 to 11/07/2019

TREATMENT TECHNOLOGY

RRS employed PlumeStop to remediate the on-site area by using injection wells IP-1 through IP-13. PlumeStop liquid activated carbon coats aquifer soil particles with a very thin layer of carbon. PlumeStop begins working quickly by allowing sorption of contaminants from the dissolved phase to the thin layer of carbon resulting in rapid reductions of contaminant concentrations from groundwater. The design of this reactive zone is to provide adsorption of VOC for a long-term period (≥ 5 years) via sorption alone. Nutrisulfate-LT[®] Granular (Nutrisulfate) was also applied to the area to enhance the biodegradation rates in the treatment zone.

RRS employed remediation design specifications as outlined in designs dated 9/17/2019.

APPLICATION

RRS applied the REGENESIS product PlumeStop by mixing the reagent in the RRS injection trailer and injecting through injection wells installed prior to RRS mobilization. Mixing water was provided from nearby fire hydrants on Atlantic Avenue and Vanderbilt Avenue which were adjacent to the work site. RRS used a dual batch mixing system with 325-gallon tanks to mix the products into an injection solution. This solution was then pumped into the subsurface using a positive displacement electrically powered pump. Injections were completed by pumping on up to four injection points at a time using the RRS injection trailer manifold system. Injection flow rates were maintained generally around 3 gallons per minute (GPM), while injection pressures were observed in the range of 2 to 100+ pounds per square inch (PSI).

Prior to RRS mobilization it was agreed upon between Langan Engineering & Environmental Services, Triton Construction Company, and REGENESIS that the PlumeStop injection concentration would increase to reduce the total PlumeStop solution volume by 3,900 gallons. A total of 300 gallons of a Nutrisulfate solution was applied to each of the injection wells to bring the total injection volume to the originally designed amount. PlumeStop was injected prior to Nutrisulfate in each of the wells to allow for PlumeStop full distribution of the product. Upon commencement of product injections, RRS flushed wells IP-13, MW

202, MW 118, and MW112 to avoid particulate buildup in each of the wells.
For more information on flushing refer to Table 3.

PLUMESTOP TREATMENT– IPs 1 to 13

A total of 34,459 gallons of PlumeStop was mixed and applied as a 9,184 mg/L solution, with a total of 66,000 pounds applied in the area.

Application Method: Injection Wells

Injection Depth: 65 to 80 feet below ground surface

Number of Injection Points: 13

Deviations for proposal:

Per Langan's request 1,375 gallons of PlumeStop were taken from both IP-10 and IP-11 to be pumped into IP-9 and IP-13. This deviation was justified from higher PID readings for contaminants obtained for IP-9 and IP-13.

Please see attached Table 1 for details on injection flow rates and pressures observed.

NUTRISULFATE TREATMENT-IPs 1 to 13

A total of 3,900 gallons of NutriSulfate was mixed and applied, with a total of 1,650 pounds applied in the area.

Application Method: Injection Wells

Injection Depth: 65 to 80 feet below ground surface

Number of Injection Points: 13

Please see attached Table 2 for details on injection flow rates and pressures observed.

Table 1

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of PlumeStop Injected			Total Gallons Per Location	Pounds of PlumeStop Injected Per Location	Comments
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval			
1	10/28/2019	14:40	80-65	10	3.46	0.00	212.30	212.30	2651	5078	
	10/28/2019	15:15	80-65	10	3.56	212.30	346.04	133.74			
	10/29/2019	9:15	80-65	5	3.26	0.00	379.09	379.09			
	10/29/2019	10:25	80-65	5	3.32	379.09	645.95	266.86			
	10/29/2019	12:15	80-65	10	4.82	645.95	1066.35	420.40			
	10/29/2019	14:25	80-65	10	5.08	1066.35	1407.95	341.60			
	10/29/2019	14:50	80-65	10	5.01	1407.95	1495.30	87.35			
	10/30/2019	8:00	80-65	5	4.44	0.00	65.10	65.10			
	10/30/2019	9:15	80-65	5	4.54	65.10	412.29	347.19			
	10/30/2019	10:00	80-65	2	3.30	412.29	585.27	172.98			
	10/30/2019	11:00	80-65	2	3.30	585.27	775.58	190.31			
	10/30/2019	11:19	80-65	2	3.43	775.58	810.00	34.42			
2	10/30/2019	13:00	80-65	5	4.06	0.00	233.61	233.61	2651	5077	
	10/30/2019	14:00	80-65	5	3.32	233.61	438.83	205.22			
	10/30/2019	15:20	80-65	10	3.10	438.83	629.16	190.33			
	10/31/2019	8:30	80-65	25	3.30	0.00	89.86	89.86			
	10/31/2019	9:30	80-65	30	3.35	89.86	310.40	220.54			
	10/31/2019	10:30	80-65	45	2.80	310.40	467.59	157.19			
	10/31/2019	11:30	80-65	50	2.37	467.59	628.61	161.02			
	10/31/2019	13:30	80-65	80	2.68	628.61	841.44	212.83			-60ppm recorded in groundwater from MW-118
	10/31/2019	14:30	80-65	60	3.08	841.44	1006.71	165.27			
	10/31/2019	15:30	80-65	60	3.08	1006.71	1182.62	175.91			
	11/1/2019	8:30	80-65	5	5.12	0.00	177.42	177.42			
	11/1/2019	9:40	80-65	5	5.06	177.42	590.64	413.22			
	11/1/2019	10:30	80-65	5	5.27	590.64	839.00	248.36			
	10/24/2019	12:41	80-65	80	2.68	0.00	232.46	232.46			
	10/24/2019	13:45	80-65	100	3.26	232.46	428.06	195.60			
3	10/24/2019	14:40	80-65	100	3.16	428.06	617.66	189.60	2651	5078	
	10/24/2019	15:20	80-65	100+	3.46	617.66	747.30	129.64			
	10/25/2019	11:30	80-65	75	2.58	0.00	152.43	152.43			
	10/25/2019	12:30	80-65	70	3.54	152.43	364.83	212.40			
	10/25/2019	13:30	80-65	20	3.70	364.83	586.83	222.00			
	10/25/2019	14:20	80-65	30	2.76	586.83	684.43	97.60			
	10/28/2019	8:40	80-65	30	3.34	0.00	132.00	132.00			
	10/28/2019	9:40	80-65	80	3.64	132.00	282.40	150.40			
	10/28/2019	10:40	80-65	100	2.66	282.40	393.39	110.99			
	10/28/2019	11:40	80-65	100	2.87	393.39	393.39	0.00			
	10/28/2019	12:40	80-65	80	2.20	393.39	654.47	261.08			
	10/28/2019	14:40	80-65	90	1.18	654.47	777.45	122.98			
	10/28/2019	14:40	80-65	90	1.37	777.45	821.38	43.93			
	10/29/2019	9:15	80-65	100+	1.55	0.00	153.80	153.80			
	10/29/2019	10:25	80-65	100+	1.64	153.80	282.85	129.05			
	10/29/2019	12:00	80-65	100+	1.58	282.85	398.10	115.25			
	10/28/2019	11:40	80-65	80	3.80	0.00	126.54	126.54	2651	5078	
4	10/28/2019	14:40	80-65	90	3.88	126.54	401.85	275.31			
	10/28/2019	15:15	80-65	90	3.80	401.85	539.20	137.35			
	10/29/2019	9:15	80-65	90	3.79	0.00	238.47	238.47			
	10/29/2019	10:25	80-65	100+	3.78	238.47	524.78	286.31			
	10/29/2019	12:20	80-65	50	1.95	524.78	749.96	225.18			
	10/29/2019	14:25	80-65	60	3.40	749.96	1001.44	251.48			
	10/29/2019	14:50	80-65	60	3.40	1001.44	1064.83	63.39			
	10/30/2019	8:00	80-65	60	5.32	0.00	67.80	67.80			
	10/30/2019	9:15	80-65	80	3.97	67.80	397.78	329.98			
	10/30/2019	10:00	80-65	100+	4.60	397.78	620.77	222.99			
	10/30/2019	11:00	80-65	100+	4.80	620.77	903.13	282.36			
	10/30/2019	11:42	80-65	100+	4.13	903.13	1047.09	143.96			
5	10/23/2019	12:30	80-65	100+	3.22	0.00	112.90	112.90	2651	5078	
	10/23/2019	13:15	80-65	100+	2.36	112.90	246.10	133.20			
	10/23/2019	14:04	80-65	100+	2.22	246.10	346.00	99.90			
	10/23/2019	14:50	80-65	100+	2.19	346.00	444.55	98.55			
	10/23/2019	15:40	80-65	100	2.48	444.55	573.61	129.06			
	10/24/2019	9:40	80-65	30	2.69	0.00	189.40	189.40			Surfacing from well stem. Improper construction/tightening. Tightened to stop surfacing
	10/24/2019	10:45	80-65	40	4.26	189.40	445.00	255.60			
	10/24/2019	11:42	80-65	25	3.46	445.00	652.60	207.60			
	10/24/2019	12:40	80-65	40	2.43	652.60	798.40	145.80			
	10/24/2019	13:45	80-65	20	4.10	798.40	1044.40	246.00			
	10/24/2019	14:39	80-65	40	3.76	1044.40	1270.00	225.60			
	10/24/2019	15:20	80-65	50	3.58	1270.00	1377.40	107.40			
	10/25/2019	9:30	80-65	40	4.76	0.00	285.60	285.60			
	10/25/2019	10:30	80-65	30	4.26	285.60	541.20	255.60			
	10/25/2019	11:12	80-65	40	3.76	541.20	700.12	158.92			

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of PlumeStop Injected			Total Gallons Per Location	Pounds of PlumeStop Injected Per Location	Comments
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval			
6	10/23/2019	10:08	80-65	100	2.48	0.00	106.48	106.48	2651	5077	
	10/23/2019	10:46	80-65	100	3.43	106.48	310.00	203.52			
	10/23/2019	11:30	80-65	100	3.12	310.00	450.40	140.40			
	10/23/2019	12:13	80-65	100	3.46	450.40	606.10	155.70			
	10/23/2019	13:02	80-65	100	3.33	606.10	755.95	149.85			
	10/23/2019	13:50	80-65	100	3.46	755.95	911.65	155.70			
	10/23/2019	14:30	80-65	100	3.27	911.65	1058.80	147.15			
	10/23/2019	15:36	80-65	100	3.62	1058.80	1221.70	162.90			
	10/24/2019	9:40	80-65	76	2.39	0.00	219.40	219.40			
	10/24/2019	10:45	80-65	100	4.46	219.40	487.00	267.60			
	10/24/2019	11:45	80-65	76	2.68	487.00	647.80	160.80			
	10/24/2019	12:41	80-65	80	2.36	647.80	789.40	141.60			
	10/24/2019	13:44	80-65	100	3.26	789.40	985.00	195.60			
	10/24/2019	14:39	80-65	100	3.32	985.00	1184.20	199.20			
	10/24/2019	15:20	80-65	100	3.25	1184.20	1281.70	97.50			
	10/25/2019	9:28	80-65	95	3.50	0.00	147.46	147.46			
7	10/30/2019	13:00	80-65	20	4.36	0.00	99.10	99.10	2651	5077	
	10/30/2019	14:00	80-65	100+	2.07	99.10	256.36	157.26			
	10/30/2019	15:20	80-65	100+	2.27	256.36	422.00	165.64			
	10/31/2019	8:30	80-65	100+	4.41	0.00	131.90	131.90			
	10/31/2019	9:30	80-65	100+	4.38	131.90	418.43	286.53			
	10/31/2019	10:30	80-65	100+	5.04	418.43	587.78	169.35			
	10/31/2019	11:30	80-65	100+	5.06	587.78	859.30	271.52			
	10/31/2019	13:30	80-65	100+	5.01	859.30	1263.34	404.04			
	10/31/2019	14:30	80-65	100+	5.23	1263.34	1557.01	293.67			
	10/31/2019	15:30	80-65	100+	5.23	1557.01	1854.02	297.01			
	11/1/2019	8:30	80-65	100+	1.42	0.00	57.11	57.11			
	11/1/2019	9:40	80-65	100+	1.73	57.11	176.76	119.65			
	11/1/2019	10:30	80-65	100+	2.68	176.76	276.58	99.82			
	11/1/2019	11:20	80-65	100+	0.80	276.58	374.51	97.93			
	10/29/2019	14:25	80-65	100	1.08	0.00	78.06	78.06	2651	5078	
8	10/29/2019	14:50	80-65	100	1.11	78.06	94.18	16.12			
	10/30/2019	8:00	80-65	100	1.22	0.00	26.82	26.82			
	10/30/2019	9:15	80-65	100	1.75	26.82	88.12	61.30			
	10/30/2019	10:00	80-65	100+	1.01	88.12	137.74	49.62			
	10/30/2019	11:00	80-65	100+	1.25	137.74	216.86	79.12			
	10/30/2019	13:00	80-65	100+	2.96	216.86	345.93	129.07			
	10/30/2019	14:00	80-65	100+	3.10	345.93	526.84	180.91			
	10/30/2019	15:20	80-65	100+	4.00	526.84	817.44	290.60			
	10/31/2019	8:30	80-65	100+	2.52	0.00	77.04	77.04			
	10/31/2019	9:30	80-65	100+	3.03	77.04	250.95	173.91			
	10/31/2019	10:30	80-65	100+	1.80	250.95	367.62	116.67			
	10/31/2019	11:30	80-65	100+	2.03	367.62	480.76	113.14			
	10/31/2019	13:30	80-65	100+	1.79	480.76	638.06	157.30			
	10/31/2019	14:30	80-65	100+	1.63	638.06	743.93	105.87			
	10/31/2019	15:30	80-65	100+	1.63	743.93	854.59	110.66			
	11/1/2019	8:30	80-65	30	3.58	0.00	189.51	189.51			
	11/1/2019	9:40	80-65	90	3.42	189.51	433.59	244.08			Surfacing around the outside of the standpipe
	11/1/2019	10:30	80-65	100+	2.85	433.59	571.79	138.20			
	11/1/2019	13:30	80-65	100+	1.78	571.79	790.20	218.41			
	11/1/2019	14:10	80-65	100+	1.75	790.20	885.00	94.80			
9	10/24/2019	9:41	80-65	75	2.49	0.00	149.40	149.40	4026	7711	Additional volume from IP-10 and IP-11 (+1375 gallons)
	10/24/2019	10:43	80-65	100	4.73	149.40	318.80	169.40			
	10/24/2019	11:19	80-65	100	3.68	318.80	625.60	306.80			Fitting came off well. Moved to another location
	10/25/2019	9:30	80-65	100	3.29	0.00	197.40	197.40			
	10/25/2019	10:30	80-65	100+	3.86	197.40	429.00	231.60			
	10/25/2019	11:30	80-65	100+	2.98	429.00	607.80	178.80			
	10/25/2019	12:30	80-65	85	3.41	607.80	812.40	204.60			
	10/25/2019	13:30	80-65	40	3.76	812.40	1038.00	225.60			
	10/25/2019	14:20	80-65	60	2.86	1038.00	1139.60	101.60			
	10/28/2019	9:40	80-65	80	3.46	0.00	192.56	192.56			
	10/28/2019	10:40	80-65	80	3.50	192.56	448.32	255.76			
	10/28/2019	11:40	80-65	80	4.08	448.32	820.00	371.68			
	10/28/2019	14:40	80-65	80	3.78	820.00	1114.92	294.92			
	10/28/2019	15:15	80-65	80	3.75	1114.92	1243.71	128.79			
	10/29/2019	9:15	80-65	80	3.97	0.00	276.08	276.08			
	10/29/2019	10:25	80-65	85	4.23	276.08	569.50	293.42			
	10/29/2019	12:20	80-65	50	2.88	569.50	956.00	386.50			
	10/29/2019	1:41	80-65	70	2.85	956.00	1017.00	61.00			
10	10/25/2019	11:30	80-65	15	4.16	0.00	154.26	154.26	1325	2537	
	10/25/2019	12:30	80-65	80	4.38	154.26	417.06	262.80			
	10/25/2019	13:30	80-65	62	3.38	417.06	619.86	202.80			
	10/25/2019	14:20	80-65	50	2.58	619.86	706.66	86.80			
	10/28/2019	9:40	80-65	100+	2.18	0.00	186.82	186.82			
	10/28/2019	10:40	80-65	100+	3.86	186.82	392.50	205.68			
	10/28/2019	11:53	80-65	100+	3.42	392.50	618.05	225.55			Remaining volume to 9 and 13

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of PlumeStop Injected			Total Gallons Per Location	Pounds of PlumeStop Injected Per Location	Comments
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval			
11	10/23/2019	10:06	80-65	100	4.50	0.00	267.39	267.39	1226	2349	
	10/23/2019	10:48	80-65	100	3.55	267.39	370.83	103.44			
	10/23/2019	11:30	80-65	100	3.26	370.83	517.53	146.70			
	10/23/2019	12:13	80-65	100	3.86	517.53	691.23	173.70			
	10/23/2019	13:01	80-65	100	3.79	691.23	861.78	170.55			
	10/23/2019	13:47	80-65	100+	3.52	861.78	1020.18	158.40			
	10/23/2019	14:33	80-65	100+	2.15	1020.18	1116.93	96.75			
	10/23/2019	15:30	80-65	100+	2.43	1116.93	1226.28	109.35			
	10/29/2019	12:15	80-65	10	4.17	0.00	32.62	32.62			Remaining volume to 9 and 13
12	10/29/2019	12:30	80-65	10	4.17	32.62	95.17	62.55	2648	5072	Flow meter kept running (dry) during lunch.
	10/29/2019	14:26	80-65	100	1.71	0.00	63.64	63.64			Estimate based on previous flow rate reading
	10/29/2019	14:50	80-65	100	1.54	63.64	85.50	21.86			Flow meter internals changed, flow meter zeroed
	10/30/2019	8:00	80-65	100	1.40	0.00	26.49	26.49			
	10/30/2019	9:15	80-65	100	1.60	26.49	105.85	79.36			
	10/30/2019	10:00	80-65	100+	1.03	105.85	166.63	60.78			
	10/30/2019	11:00	80-65	100+	1.04	166.63	225.22	58.59			
	10/30/2019	13:00	80-65	100+	0.81	225.22	285.90	60.68			
	10/30/2019	14:00	80-65	100+	1.37	285.90	354.53	68.63			
	10/30/2019	15:20	80-65	100+	1.62	354.53	474.72	120.19			
	10/31/2019	8:30	80-65	100+	1.45	0.00	80.48	80.48			
	10/31/2019	9:30	80-65	100+	2.53	80.48	255.14	174.66			
	10/31/2019	10:30	80-65	100+	1.53	255.14	359.67	104.53			
	10/31/2019	11:30	80-65	100+	1.65	359.67	451.41	91.74			
	10/31/2019	13:30	80-65	100+	1.46	451.41	584.22	132.81			
	10/31/2019	14:30	80-65	100+	1.28	584.22	664.64	80.42			
	10/31/2019	15:30	80-65	100+	1.28	664.64	756.44	91.80			
	11/1/2019	8:30	80-65	100+	0.79	0.00	45.46	45.46			
	11/1/2019	9:40	80-65	100+	1.55	45.46	143.86	98.40			
	11/1/2019	10:30	80-65	100+	1.88	143.86	227.49	83.63			
	11/1/2019	13:30	80-65	100+	2.28	227.49	477.40	249.91			
	11/1/2019	14:30	80-65	100+	2.46	477.40	658.68	181.28			
	11/5/2019	8:58	80-65	100+	1.56	0.00	110.43	110.43			
	11/5/2019	10:03	80-65	100+	1.69	110.43	203.46	93.03			
	11/5/2019	11:10	80-65	100+	1.53	203.46	311.26	107.80			
	11/5/2019	13:02	80-65	100+	1.66	311.26	419.36	108.10			
	11/5/2019	14:00	80-65	100+	1.82	419.36	495.71	76.35			
	11/5/2019	14:41	80-65	100+	1.49	495.71	577.45	81.74			500 pm in mw-202
13	10/23/2019	10:06	80-65	100	4.22	0.00	174.46	174.46	4026	7712	Additional volume from IP-10 and IP-11 (+1375 gallons)
	10/23/2019	10:45	80-65	100	2.46	174.46	285.16	110.70			
	10/23/2019	11:30	80-65	100	3.41	285.16	438.61	153.45			
	10/23/2019	12:13	80-65	100	3.79	438.61	609.16	170.55			
	10/23/2019	13:01	80-65	100	3.03	609.16	745.51	136.35			
	10/23/2019	13:47	80-65	100	3.23	745.51	890.86	145.35			
	10/23/2019	14:36	80-65	100	3.23	890.86	1036.21	145.35			
	10/23/2019	15:37	80-65	100	3.16	1036.21	1178.41	142.20			
	10/24/2019	9:40	80-65	75	2.28	0.00	199.80	199.80			
	10/24/2019	10:46	80-65	100	4.21	199.80	452.40	252.60			
	10/24/2019	11:44	80-65	80	2.68	452.40	613.20	160.80			
	10/24/2019	12:40	80-65	100	2.79	613.20	780.60	167.40			
	10/24/2019	13:44	80-65	100	3.06	780.60	964.20	183.60			
	10/24/2019	15:20	80-65	100	3.46	964.20	1068.00	103.80			
	10/25/2019	9:30	80-65	100	3.27	0.00	196.20	196.20			
	10/25/2019	10:33	80-65	100+	3.82	196.20	425.40	229.20			
	10/25/2019	11:32	80-65	100+	3.54	425.40	637.80	212.40			
	10/25/2019	12:30	80-65	90	3.49	637.80	847.20	209.40			
	10/25/2019	13:30	80-65	50	3.30	847.20	1045.20	198.00			
	10/25/2019	14:20	80-65	40	2.43	1045.20	1123.00	77.80			
	10/28/2019	9:40	80-65	40	2.12	0.00	165.03	165.03			
	10/28/2019	10:40	80-65	100+	3.02	165.03	327.50	162.47			
	10/28/2019	11:40	80-65	80	1.78	327.50	628.92	301.42			
	10/28/2019	13:27	80-65	80	2.03	628.92	657.03	28.11			
									Total Gallons	Total Pounds of PlumeStop	
									34459	66000	

PlumeStop Injection Summary Log

Dissolved Plume

Table 2

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of PlumeStop Injected			Total Gallons Per Location	Pounds of NutriSulfate Injected Per Location	Comments
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval			
1	11/5/2019	13:43	80-65	12	10.04	0.00	151.43	151.43	300	127	
	11/5/2019	14:36	80-65	11	10.10	151.43	300.18	148.75			
2	11/5/2019	12:40	80-65	10	10.57	0.00	148.93	148.93	300	127	
	11/5/2019	13:15	80-65	10	10.73	148.93	300.04	151.11			
3	11/5/2019	10:40	80-65	30	5.38	0.00	152.76	152.76	300	127	
	11/5/2019	11:28	80-65	32	5.49	152.76	299.93	147.17			
4	11/1/2019	13:05	80-65	15	9.75	0.00	100.20	100.20	300	127	
	11/1/2019	13:48	80-65	15	10.38	100.20	201.27	101.07			
	11/1/2019	14:27	80-65	10	10.94	201.27	300.03	98.76			
5	11/5/2019	8:45	80-65	10	9.56	0.00	100.26	100.26	300	127	
	11/5/2019	9:22	80-65	10	9.66	100.26	199.73	99.47			
	11/5/2019	9:48	80-65	10	10.13	199.73	300.04	100.31			
6	11/5/2019	15:15	80-65	35	5.25	0.00	149.68	149.68	300	127	
	11/5/2019	16:15	80-65	42	5.56	149.68	300.11	150.43			
7	11/6/2019	8:34	80-65	35	6.21	0.00	150.24	150.24	300	127	
	11/6/2019	9:20	80-65	40	4.76	150.24	300.05	149.81			
8	11/6/2019	9:43	80-65	25	7.51	0.00	149.76	149.76	300	127	
	11/6/2019	10:17	80-65	20	7.93	149.76	300.03	150.27			
9	11/6/2019	11:05	80-65	50	3.45	0.00	150.13	150.13	300	127	
	11/6/2019	11:44	80-65	42	4.54	150.13	300.18	150.05			
10	11/6/2019	12:02	80-65	0	10.40	0.00	151.37	151.37	300	127	
	11/6/2019	12:48	80-65	0	10.38	151.37	299.68	148.31			
11	11/6/2019	13:13	80-65	60	3.26	0.00	150.76	150.76	300	127	
	11/6/2019	14:02	80-65	45	4.12	150.76	300.08	149.32			
12	11/6/2019	2:57	80-65	55	3.30	0.00	148.93	148.93	300	127	
	11/6/2019	13:53	80-65	50	3.84	148.93	299.76	150.83			
13	11/7/2019	8:06	80-65	6	8.74	0.00	150.26	150.26	300	127	
	11/7/2019	8:43	80-65	10	4.63	150.26	300.06	149.80			
									Total Gallons	Total Pounds of NutriSulfate	
									3900	1650	

Triton Construction Company-550 Clinton Ave.
Flush Injection Summary Log
Injection Area Description



Table 3

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Comments
IP 13	11/7/2019	8:31	80-65	12	3.84	0.00	80.34	
MW 202	11/7/2019	8:57	80-65	9	5.36	0.00	80.51	
MW 118	11/7/2019	9:19	80-65	10	4.82	0.00	81.07	
MW 112	11/7/2019	10:05	80-65	2	6.46	0.00	44.49	Remainder of tank was pumped into this well



Not to Scale

LEGEND Injection Well Monitoring Well	Prepared By: WMC Figure 1 Injection Locations 550 Clinton Brooklyn, NY Date Prepared: November 2019	REGENESI^S REMEDIAL SERVICES Technology-Based Solutions for the Environment
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Photo Log



Photo 1: Overview of worksite, and IP-1 being pumped on. Orange circular cones were used to mark Injection Wells.



Photo 2: Another overview of the worksite, but this time from inside the injection trailer. Also, flow meters (under orange valves) were used inside the trailer to monitor progress on points.



Photo 3: Typical setup of an Injection Well being pumped on with safety valves and pressure gauge.



Photo 4: Closeup on a typical Injection Well. White PVC attachments were used to hook up injection hoses to the wells.



Photo 5: Product storage of Plumestop and NutriSulfate on site.



Photo 6: Water source (hydrant) on Atlantic Avenue being fed to injection trailer.

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW-202

PROJECT		PROJECT NO.	
805-825 Atlantic Avenue		170384501	
LOCATION		ELEVATION AND DATUM	
Brooklyn, NY		NA	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
AARCO Environmental Services, Corp.		10/1/2019	10/2/2019
DRILLING EQUIPMENT		DRILLER	
Geoprobe® 7822 DT		Tom Seickel	
SIZE AND TYPE OF BIT		INSPECTOR	
4-inch Direct Push		Tyler Goodnough	
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)	
6"		Overburden	
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL	
PVC	2"	Grout w/ 5% Bentonite	
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite
METHOD OF INSTALLATION			
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.			
WELL DEVELOPMENT DATA			
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	40 gallons
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid		
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a riser pipe extending to the surface, a seal at 1 foot depth, a bentonite layer, a screen from 64 to 80 feet depth, and No. 1 Sand filling the annulus from 65 feet to the surface. Labels include 'Riser', 'Seal', 'Bentonite', 'Screen', and 'No. 1 Sand'.
TOP OF SEAL	ELEVATION	DEPTH (ft)	
TOP OF FILTER	ELEVATION	DEPTH (ft)	
TOP OF SCREEN	ELEVATION	DEPTH (ft)	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)	
SCREEN LENGTH			
SLOT SIZE			
GROUNDWATER ELEVATIONS			
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
			SUMMARY SOIL CLASSIFICATION
			DEPTH (FT)
			0
			See boring log
			63
			64.00
			65.0
			80.00
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York			

IP-01

PROJECT		PROJECT NO.				
805-825 Atlantic Avenue		170384501				
LOCATION		ELEVATION AND DATUM				
Brooklyn, NY		NA				
DRILLING AGENCY		DATE STARTED	DATE FINISHED			
AARCO Environmental Services, Corp.		10/4/2019	10/7/2019			
DRILLING EQUIPMENT		DRILLER				
Sonic Rig		Tom Seickel				
SIZE AND TYPE OF BIT		INSPECTOR				
4-inch Direct Push		Tyler Goodnough				
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)				
6"		Overburden				
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL				
PVC	2"	Grout w/ 5% Bentonite				
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL			
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite			
METHOD OF INSTALLATION						
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.						
WELL DEVELOPMENT DATA						
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible	DEVELOPMENT CONFIRMATION		
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A	Well pumped until purge water no longer appeared turbid		
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons			
TOP OF CASING	ELEVATION	DEPTH (ft)	WELL DETAILS		SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
	NA	0			See boring log	0
TOP OF SEAL	ELEVATION	DEPTH (ft)				
	NA	1				
TOP OF FILTER	ELEVATION	DEPTH (ft)				
	NA	64				
TOP OF SCREEN	ELEVATION	DEPTH (ft)				
	NA	65.0				
BOTTOM OF BORING	ELEVATION	DEPTH (ft)				
	NA	80				
SCREEN LENGTH	15'					
SLOT SIZE	No. 20 Slot; 0.020 Inches					
GROUNDWATER ELEVATIONS						
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York						

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-02

PROJECT		PROJECT NO.		
805-825 Atlantic Avenue		170384501		
LOCATION		ELEVATION AND DATUM		
Brooklyn, NY		NA		
DRILLING AGENCY		DATE STARTED	DATE FINISHED	
AARCO Environmental Services, Corp.		10/8/2019	10/9/2019	
DRILLING EQUIPMENT		DRILLER		
Sonic Rig		Tom Seickel		
SIZE AND TYPE OF BIT		INSPECTOR		
4-inch Direct Push		Tyler Goodnough		
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"		Overburden		
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC	2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL	
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite	
METHOD OF INSTALLATION				
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.				
WELL DEVELOPMENT DATA				
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible	
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A	
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons	
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid			
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a casing at the surface (0 ft), a riser extending down to 64 feet, a seal at 64 feet, bentonite at 65.0 feet, a screen from 65.0 to 80.0 feet, and No. 2 Sand below the screen. Labels include: Riser, Grout/Bentonite, Seal, Bentonite, Seal, PVC Screen, and No. 2 Sand.	
TOP OF SEAL	ELEVATION	DEPTH (ft)		
TOP OF FILTER	ELEVATION	DEPTH (ft)		
TOP OF SCREEN	ELEVATION	DEPTH (ft)		
BOTTOM OF BORING	ELEVATION	DEPTH (ft)		
SCREEN LENGTH				
SLOT SIZE				
GROUNDWATER ELEVATIONS				
ELEVATION	DATE	DEPTH TO WATER		
ELEVATION	DATE	DEPTH TO WATER		
ELEVATION	DATE	DEPTH TO WATER		
ELEVATION	DATE	DEPTH TO WATER		
ELEVATION	DATE	DEPTH TO WATER		
ELEVATION	DATE	DEPTH TO WATER		
WELL DETAILS			SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
			See boring log	0
				63
				64.00
				65.0
				80.00
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York				

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-03

PROJECT		PROJECT NO.	
805-825 Atlantic Avenue		170384501	
LOCATION		ELEVATION AND DATUM	
Brooklyn, NY		NA	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
AARCO Environmental Services, Corp.		10/11/2019	10/14/2019
DRILLING EQUIPMENT		DRILLER	
Sonic Rig		Tom Seickel	
SIZE AND TYPE OF BIT		INSPECTOR	
4-inch Direct Push		Tyler Goodnough	
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)	
6"		Overburden	
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL	
PVC	2"	Grout w/ 5% Bentonite	
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite
METHOD OF INSTALLATION			
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.			
WELL DEVELOPMENT DATA			
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid		
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a casing at the surface (0 ft), a riser extending to 1 foot (1 ft), a seal at 1 foot, grout/bentonite between 1 and 64 feet, another seal at 64 feet, bentonite between 64 and 65 feet, a screen between 65 and 80 feet, and No. 2 sand below 80 feet. Labels include: Riser, Grout/Bentonite, Seal, Bentonite, Seal, PVC Screen, and No. 2 Sand.
TOP OF SEAL	ELEVATION	DEPTH (ft)	
TOP OF FILTER	ELEVATION	DEPTH (ft)	
TOP OF SCREEN	ELEVATION	DEPTH (ft)	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)	
SCREEN LENGTH			
SLOT SIZE			
GROUNDWATER ELEVATIONS			
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
SUMMARY SOIL CLASSIFICATION			See boring log
DEPTH (FT)			
			0
			63
			64.00
			65.0
			80.00
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York			

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-04

PROJECT		PROJECT NO.	
805-825 Atlantic Avenue		170384501	
LOCATION		ELEVATION AND DATUM	
Brooklyn, NY		NA	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
AARCO Environmental Services, Corp.		10/15/2019	10/16/2019
DRILLING EQUIPMENT		DRILLER	
Sonic Rig		Tom Seickel	
SIZE AND TYPE OF BIT		INSPECTOR	
4-inch Direct Push		Tyler Goodnough	
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)	
6"		Overburden	
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL	
PVC	2"	Grout w/ 5% Bentonite	
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite
METHOD OF INSTALLATION			
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.			
WELL DEVELOPMENT DATA			
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid		
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a riser pipe extending to the surface, a seal at 1 foot depth, a bentonite layer, a screen at 65.0 feet depth, and No. 2 Sand filling the annulus below the screen. The PVC casing is shown extending to the bottom of the bore.
TOP OF SEAL	ELEVATION	DEPTH (ft)	
TOP OF FILTER	ELEVATION	DEPTH (ft)	
TOP OF SCREEN	ELEVATION	DEPTH (ft)	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)	
SCREEN LENGTH			
SLOT SIZE			
GROUNDWATER ELEVATIONS			
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
			SUMMARY SOIL CLASSIFICATION
			DEPTH (FT)
			0
			See boring log
			63
			64.00
			65.0
			80.00
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WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-05

PROJECT		PROJECT NO.										
805-825 Atlantic Avenue		170384501										
LOCATION		ELEVATION AND DATUM										
Brooklyn, NY		NA										
DRILLING AGENCY		DATE STARTED	DATE FINISHED									
AARCO Environmental Services, Corp.		10/16/2019	10/17/2019									
DRILLING EQUIPMENT		DRILLER										
Sonic Rig		Tom Seickel										
SIZE AND TYPE OF BIT		INSPECTOR										
4-inch Direct Push		Tyler Goodnough										
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)										
6"		Overburden										
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL										
PVC	2"	Grout w/ 5% Bentonite										
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL									
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite									
METHOD OF INSTALLATION												
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.												
WELL DEVELOPMENT DATA												
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible									
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A									
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons									
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid											
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a solid PVC riser (0-64 ft), a grout/bentonite seal (64-65 ft), a bentonite seal (65-66 ft), a PVC screen (66-80 ft) surrounded by No. 2 sand, and a final seal at the bottom. Labels include: Riser, Grout/Bentonite Seal, Bentonite Seal, PVC Screen, and No. 2 Sand.									
TOP OF SEAL	ELEVATION	DEPTH (ft)										
TOP OF FILTER	ELEVATION	DEPTH (ft)										
TOP OF SCREEN	ELEVATION	DEPTH (ft)										
BOTTOM OF BORING	ELEVATION	DEPTH (ft)										
SCREEN LENGTH												
SLOT SIZE												
GROUNDWATER ELEVATIONS												
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
			<table border="1"> <tr> <th>SUMMARY SOIL CLASSIFICATION</th> <th>DEPTH (FT)</th> </tr> <tr> <td rowspan="4">See boring log</td> <td>0</td> </tr> <tr> <td>63</td> </tr> <tr> <td>64.00</td> </tr> <tr> <td>65.0</td> </tr> <tr> <td></td> <td>80.00</td> </tr> </table>	SUMMARY SOIL CLASSIFICATION	DEPTH (FT)	See boring log	0	63	64.00	65.0		80.00
SUMMARY SOIL CLASSIFICATION	DEPTH (FT)											
See boring log	0											
	63											
	64.00											
	65.0											
	80.00											
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York												

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

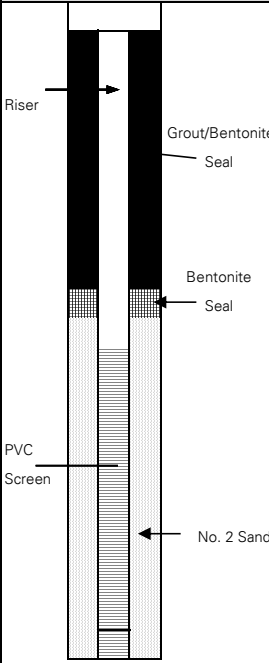
IP-06

PROJECT		PROJECT NO.	
805-825 Atlantic Avenue		170384501	
LOCATION		ELEVATION AND DATUM	
Brooklyn, NY		. NA .	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
AARCO Environmental Services, Corp.		10/3/2019	10/4/2019
DRILLING EQUIPMENT		DRILLER	
Sonic Rig		Tom Seickel	
SIZE AND TYPE OF BIT		INSPECTOR	
4-inch Direct Push		Tyler Goodnough	
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)	
6"		Overburden	
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL	
PVC	2"	Grout w/ 5% Bentonite	
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite
METHOD OF INSTALLATION			
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.			
WELL DEVELOPMENT DATA			
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid		
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a riser pipe extending to the surface, a seal at 1 foot depth, a bentonite layer at 64 feet, a screen at 65.0 feet, and No. 2 Sand filling the annulus from 65.0 feet to the bottom of the bore at 80.00 feet. Labels include 'Riser', 'Seal', 'Grout/Bentonite', 'Bentonite', 'PVC Screen', and 'No. 2 Sand'.
TOP OF SEAL	ELEVATION	DEPTH (ft)	
TOP OF FILTER	ELEVATION	DEPTH (ft)	
TOP OF SCREEN	ELEVATION	DEPTH (ft)	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)	
SCREEN LENGTH			
SLOT SIZE			
GROUNDWATER ELEVATIONS			
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
			0
See boring log			63
			64.00
			65.0
			80.00

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21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

IP-07

PROJECT 805-825 Atlantic Avenue			PROJECT NO. 170384501				
LOCATION Brooklyn, NY			ELEVATION AND DATUM NA				
DRILLING AGENCY AARCO Environmental Services, Corp.			DATE STARTED 10/9/2019		DATE FINISHED 10/10/2019		
DRILLING EQUIPMENT Sonic Rig			DRILLER Tom Seickel				
SIZE AND TYPE OF BIT 4-inch Direct Push			INSPECTOR Tyler Goodnough				
BOREHOLE DIAMETER 6"			TYPE OF WELL (OVERBURDEN / BEDROCK) Overburden				
RISER MATERIAL PVC		DIAMETER 2"	TYPE OF BACKFILL MATERIAL Grout w/ 5% Bentonite				
TYPE OF SCREEN PVC No. 20 Slot		DIAMETER 2"	TYPE OF WELL PACK No. 1 Sand		TYPE OF SEAL MATERIAL Grout w/ 5% Bentonite		
METHOD OF INSTALLATION Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.							
WELL DEVELOPMENT DATA							
SURGE BLOCK DIAMETER		N/A	TYPE PUMP Submersible		DEVELOPMENT CONFIRMATION		
DRILLER OR LANGAN		Driller	MAX PUMP RATE N/A		Well pumped until purge water no longer appeared turbid		
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME 15 gallons				
TOP OF CASING ELEVATION NA DEPTH (ft) 0					WELL DETAILS	SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
TOP OF SEAL ELEVATION NA DEPTH (ft) 1						See boring log	0
TOP OF FILTER ELEVATION NA DEPTH (ft) 64							
TOP OF SCREEN ELEVATION NA DEPTH (ft) 65.0							
BOTTOM OF BORING ELEVATION NA DEPTH (ft) 80							
SCREEN LENGTH 15'							
SLOT SIZE No. 20 Slot; 0.020 Inches							63
GROUNDWATER ELEVATIONS							64.00
ELEVATION DATE DEPTH TO WATER NA							65.0
ELEVATION DATE DEPTH TO WATER							
ELEVATION DATE DEPTH TO WATER							
ELEVATION DATE DEPTH TO WATER							
ELEVATION DATE DEPTH TO WATER					80.00		
ELEVATION DATE DEPTH TO WATER							
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WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-08

PROJECT		PROJECT NO.										
805-825 Atlantic Avenue		170384501										
LOCATION		ELEVATION AND DATUM										
Brooklyn, NY		NA										
DRILLING AGENCY		DATE STARTED	DATE FINISHED									
AARCO Environmental Services, Corp.		10/14/2019	10/15/2019									
DRILLING EQUIPMENT		DRILLER										
Sonic Rig		Tom Seickel										
SIZE AND TYPE OF BIT		INSPECTOR										
4-inch Direct Push		Tyler Goodnough										
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)										
6"		Overburden										
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL										
PVC	2"	Grout w/ 5% Bentonite										
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL									
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite									
METHOD OF INSTALLATION												
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.												
WELL DEVELOPMENT DATA												
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible									
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A									
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons									
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid											
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a casing at the surface (0 ft), a riser extending down to 64 feet, a seal at 64 feet, bentonite at 65.0 feet, a screen from 65.0 to 80.0 feet, and No. 2 Sand below the screen. Labels include: Riser, Grout/Bentonite Seal, Bentonite Seal, PVC Screen, and No. 2 Sand.									
TOP OF SEAL	ELEVATION	DEPTH (ft)										
TOP OF FILTER	ELEVATION	DEPTH (ft)										
TOP OF SCREEN	ELEVATION	DEPTH (ft)										
BOTTOM OF BORING	ELEVATION	DEPTH (ft)										
SCREEN LENGTH												
SLOT SIZE												
GROUNDWATER ELEVATIONS												
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
ELEVATION	DATE	DEPTH TO WATER										
			<table border="1"> <tr> <th>SUMMARY SOIL CLASSIFICATION</th> <th>DEPTH (FT)</th> </tr> <tr> <td rowspan="4">See boring log</td> <td>0</td> </tr> <tr> <td>63</td> </tr> <tr> <td>64.00</td> </tr> <tr> <td>65.0</td> </tr> <tr> <td></td> <td>80.00</td> </tr> </table>	SUMMARY SOIL CLASSIFICATION	DEPTH (FT)	See boring log	0	63	64.00	65.0		80.00
SUMMARY SOIL CLASSIFICATION	DEPTH (FT)											
See boring log	0											
	63											
	64.00											
	65.0											
	80.00											

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21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

IP-09

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			NA		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			10/17/2019		10/18/2019
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Tom Seickel		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tyler Goodnough		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
Well pumped until purge water no longer appeared turbid					
TOP OF CASING			ELEVATION		DEPTH (ft)
			NA		0
TOP OF SEAL			ELEVATION		DEPTH (ft)
			NA		1
TOP OF FILTER			ELEVATION		DEPTH (ft)
			NA		64
TOP OF SCREEN			ELEVATION		DEPTH (ft)
			NA		65.0
BOTTOM OF BORING			ELEVATION		DEPTH (ft)
			NA		80
SCREEN LENGTH			15'		
SLOT SIZE			No. 20 Slot; 0.020 Inches		
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
		NA			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			

The diagram illustrates the well construction from the surface down to 80 feet. It shows a solid PVC riser (0-1 ft), a bentonite/grout seal (1-64 ft), a PVC screen (64-80 ft) with No. 20 slots, and an annulus filled with No. 1 filter sand. Labels indicate the Riser, Grout/Bentonite, Seal, Bentonite, and No. 2 Sand.

WELL DETAILS		SUMMARY SOIL CLASSIFICATION	DEPTH (FT)
		See boring log	0
			63
			64.00
			65.0
			80.00

LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C.
 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

IP-10

PROJECT		PROJECT NO.									
805-825 Atlantic Avenue		170384501									
LOCATION		ELEVATION AND DATUM									
Brooklyn, NY		NA									
DRILLING AGENCY		DATE STARTED	DATE FINISHED								
AARCO Environmental Services, Corp.		10/18/2019	10/21/2019								
DRILLING EQUIPMENT		DRILLER									
Sonic Rig		Tom Seickel									
SIZE AND TYPE OF BIT		INSPECTOR									
4-inch Direct Push		Tyler Goodnough									
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)									
6"		Overburden									
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL									
PVC	2"	Grout w/ 5% Bentonite									
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL								
PVC No. 20 Slot	2"	No. 1 Sand	Grout w/ 5% Bentonite								
METHOD OF INSTALLATION											
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.											
WELL DEVELOPMENT DATA											
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible								
DRILLER OR LANGAN	Driller	MAX PUMP RATE	N/A								
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	15 gallons								
DEVELOPMENT CONFIRMATION	Well pumped until purge water no longer appeared turbid										
TOP OF CASING	ELEVATION	DEPTH (ft)	The diagram illustrates the well construction from the surface down to 80 feet. It shows a riser pipe, a seal, a bentonite layer, a screen, and a No. 2 Sand layer. The depth of each layer is indicated on the right side of the diagram.								
TOP OF SEAL	ELEVATION	DEPTH (ft)									
TOP OF FILTER	ELEVATION	DEPTH (ft)									
TOP OF SCREEN	ELEVATION	DEPTH (ft)									
BOTTOM OF BORING	ELEVATION	DEPTH (ft)									
SCREEN LENGTH											
SLOT SIZE											
GROUNDWATER ELEVATIONS											
ELEVATION	DATE	DEPTH TO WATER									
ELEVATION	DATE	DEPTH TO WATER									
ELEVATION	DATE	DEPTH TO WATER									
ELEVATION	DATE	DEPTH TO WATER									
ELEVATION	DATE	DEPTH TO WATER									
ELEVATION	DATE	DEPTH TO WATER									
			<table border="1"> <tr> <td>SUMMARY SOIL CLASSIFICATION</td> <td>DEPTH (FT)</td> </tr> <tr> <td rowspan="5">See boring log</td> <td>0</td> </tr> <tr> <td>63</td> </tr> <tr> <td>64.00</td> </tr> <tr> <td>65.0</td> </tr> <tr> <td>80.00</td> </tr> </table>	SUMMARY SOIL CLASSIFICATION	DEPTH (FT)	See boring log	0	63	64.00	65.0	80.00
SUMMARY SOIL CLASSIFICATION	DEPTH (FT)										
See boring log	0										
	63										
	64.00										
	65.0										
	80.00										
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Well No.

IP-11

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			NA		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			10/2/2019		10/3/2019
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Tom Seickel		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tyler Goodnough		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 83 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
TOP OF CASING		ELEVATION	DEPTH (ft)		WELL DETAILS

IP-12

21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

Well No.

IP-13

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			NA		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			10/21/2019		10/22/2019
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Tom Seickel		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tyler Goodnough		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 80 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 65 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
TOP OF CASING		ELEVATION	DEPTH (ft)		WELL DETAILS
NA			0		
TOP OF SEAL		ELEVATION	DEPTH (ft)		
NA			1		
TOP OF FILTER		ELEVATION	DEPTH (ft)		
NA			64		
TOP OF SCREEN		ELEVATION	DEPTH (ft)		
NA			65.0		
BOTTOM OF BORING		ELEVATION	DEPTH (ft)		SUMMARY SOIL CLASSIFICATION See boring log
NA			80		
SCREEN LENGTH		15'			
SLOT SIZE		No. 20 Slot; 0.020 Inches			
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
		NA			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C. 21 Penn Plaza. 360 West 31st Street. 8th Floor. New York					

Project Information		Well Information		Equipment Information		Sampling Conditions		Sampling Information	
Project Name:	805-825 Atlantic Avenue	Well No:	IP-05	Water Quality Device Model:	Horiba U-52	Weather:	Cloudy 40-30	Sample(s):	IP-05_010620
Project Number:	170384501	Well Depth:	80-feet	Pine Number:	23067	Background PID (ppm):	0.0		
Site Location:	Brooklyn, New York	Well Diameter:	2-inch	Pump Make and Model:	Monsoon Pump	PID Beneath Inner Cap (ppm):	0.0		
Sampling Personnel:	Tomas Monti	Well Screen Interval:	60-80 feet	Pine Number:	043874	Pump Intake Depth:	70.00	Sample Date:	1/6/2020
				Tubing Diameter:	HDPE 3/8"x1/2"	Depth to Water Before Purge:	65.01	Sample Time:	9:00

[illegible]

Notes:

1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
10. NTU = Nephelometric Turbidity Unit

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[illegible]

1. Well depths and groundwater depths were measured in feet below the top of well casing.
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3. PID = Photoionization Detector
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5. pH = Hydrogen ion concentration
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8. DTW = Depth to water
9. mS/cm = milli-Siemens per centimeter
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[illegible]

Notes:

1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
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10. NTU = Nephelometric Turbidity Unit

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Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 07/14/2020		Date Finished 07/15/2020	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 72 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 15		Disturbed 0	
Casing Diameter (in) 4"		Casing Depth (ft) 5'		Water Level (ft.) First ∇ 58		Undisturbed 0	
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Core 0	
Sampler 5' steel tube and bags				Drilling Foreman Daybi Pacheco			
Sampler Hammer N/A				Field Engineer Tomas Monti, Andrew Nesci			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					PID (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	BLU6in		
	+66.0	R1 (0-36) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	0	1	BAG	36/60			1.1	
			1						0.6	
			2						0.5	
	+63.0		3	2	BAG	56/60			0.2	
			4						0.2	
			5						0.0	
	+56.0	R2 (0-56) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	6	3	BAG	12/60			0.0	
			7						0.0	
			8						0.0	
	+51.0	R3 (0-12) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	9	4	BAG	60/60			0.0	
			10						0.0	
			11						0.0	
	+46.0	R4 (0-60) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	12						0.0	
			13						0.0	
			14						0.0	
			15						0.9	
			16						0.9	
			17						1.5	
			18						0.0	
			19						0.0	
			20						0.0	

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Log of Boring MW-203 Sheet 2 of 4

Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID (ppm)	
	+46.0	R5 (0-24) Gray boulder	20	5	BAG	24/60		0.0	Hard drilling, boulder encountered at 25'. Drilled to 72'.
			21						
			22						
			23						
			24						
	+41.0	R6 No Recovery	25	6	BAG	0/60		0.0	
			26						
			27						
			28						
			29						
+36.0	R7 No Recovery	30	7	BAG	0/60				
		31							
		32							
		33							
		34							
+31.0	R8 No Recovery	35	8	BAG	0/60				
		36							
		37							
		38							
		39							
+26.0	R9 No Recovery	40	9	BAG	0/60				
		41							
		42							
		43							
		44							
+21.0			45						

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Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID (ppm)	
	+21.0	R10 No Recovery	45						
			46						
			47						
			48	10	BAG	0/60			
			49						
	+16.0	R11 No Recovery	50						
			51						
			52						
			53	11	BAG	0/60			
			54						
	+11.0	R12 No Recovery	55						
			56						
			57						
			58	12	BAG	0/60			
			59						
	+6.0	R13 No Recovery	60						
			61						
			62						
			63	13	BAG	0/60			
			64						
+1.0	R14 No Recovery	65							
		66							
		67							
		68	14	BAG	0/60				
		69							
		70							



Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID (ppm)	
	-4.0	R15 No Recovery	70						
			71	15	BAG	0/24			
	-6.0		72						
			73						
			74						
			75						
			76						
			77						
			78						
			79						
			80						
			81						
			82						
			83						
			84						
			85						
			86						
			87						
			88						
			89						
			90						
			91						
			92						
			93						
			94						
			95						

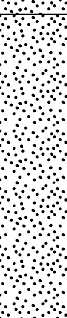
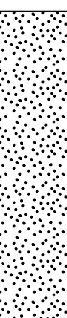
End of boring at 72'.
Completed as monitoring well
MW-203, screened from
57-72'.

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Log of Boring **MW-204** Sheet 1 of 4

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 07/13/2020		Date Finished 07/14/2020	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 72 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 15		Disturbed 0	
Casing Diameter (in) 4"				Casing Depth (ft) 5'		Core 0	
Casing Hammer N/A				Weight (lbs) N/A		Drop (in) N/A	
Sampler 5' steel tube and bags				Water Level (ft.) First ∇ 58			
Sampler Hammer N/A				Completion ∇			
Weight (lbs) N/A				24 HR. ∇			
Drop (in) N/A				Drilling Foreman Daybi Pacheco			
				Field Engineer Tomas Monti, Andrew Nesci			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BLU6in	PID (ppm)	
	+66.0	R1 (0-36) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	0	1	BAG	36/60		0.0	
	1								
	2								
	3								
	4								
	+63.0	R2 (0-36) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	5	2	BAG	36/60		0.0	
	6								
	7								
	8								
	9								
	+56.0	R3 (0-52) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	10	3	BAG	52/60		0.0	
	11								
	12								
	13								
	14								
	+51.0	R4 (0-36) Gray boulder	15	4	BAG	36/60		0.0	
	16								
	17								
	18								
	19								
	+46.0		20						

Project		Project No.							
805-825 Atlantic Avenue		170384501							
Location		Elevation and Datum							
Brooklyn, NY		NA 66							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/ft	PID (ppm)	
	+46.0	R5 (0-18) Brown fine SAND, some coarse gravel, trace fine gravel (moist)	20	5	BAG	18/60		0.0	
			21						
			22						
			23						
			24						
	+41.0	R6 (0-60) Reddish brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	25	6	BAG	60/60		0.0	
			26						
			27						
			28						
			29						
			30						
			31						
			32						
			33						
			34						
	+36.0	R7 (0-30) Gray boulder	35	7	BAG	30/60		0.0	
			36						
			37						
			38						
			39						
	+31.0	R8 (0-36) Grayish brown fine SAND, some coarse gravel, trace fine gravel (moist)	40	8	BAG	36/60		0.0	
			41						
			42						
			43						
			44						
	+26.0	R9 No Recovery	45	9	BAG	0/60		0.0	Hard drilling, boulder encountered at 40'. Drilled to 72'.
			46						
			47						
			48						
			49						
	+21.0		50						



Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID (ppm)	
	+21.0	R10 No Recovery	45	10	BAG	0/60			
			46						
			47						
			48						
			49						
	+16.0	R11 No Recovery	50	11	BAG	0/60			
			51						
			52						
			53						
			54						
	+11.0	R12 No Recovery	55	12	BAG	0/60			
			56						
			57						
			58						
			59						
	+6.0	R13 No Recovery	60	13	BAG	0/60			
			61						
			62						
			63						
			64						
+1.0	R14 No Recovery	65	14	BAG	0/60				
		66							
		67							
		68							
		69							
		70							

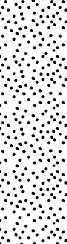
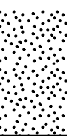
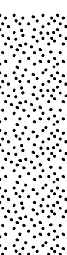


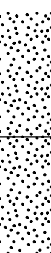
Project 805-825 Atlantic Avenue			Project No. 170384501						
Location Brooklyn, NY			Elevation and Datum NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID (ppm)	
	-4.0	R15 No Recovery	70	15	BAG	0/24			End of boring at 72'. Completed as monitoring well MW-204, screened from 57-72'.
	-6.0		71						
			72						
			73						
			74						
			75						
			76						
			77						
			78						
			79						
			80						
			81						
			82						
			83						
			84						
			85						
			86						
			87						
			88						
			89						
			90						
			91						
			92						
			93						
			94						
		95							

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Log of Boring MW-205 Sheet 1 of 4

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 07/24/2020		Date Finished 07/27/2020	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 72 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 15		Undisturbed 0	
Casing Diameter (in) 4"		Casing Depth (ft) 5'		Water Level (ft.) First ∇ 55		Completion ∇ 24 HR. ∇	
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman Daybi Pacheco	
Sampler 5' steel tube and bags				Field Engineer Tomas Monti, Andrew Nesci			
Sampler Hammer N/A		Weight (lbs) N/A		Drop (in) N/A			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist	BLU6in		
	+66.0	R1 (0-48) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	0	1	BAG	48/60			1.1 36.2 1176.0 1238.7 759.3 511.2 323.4 983.8	Petroleum-like odor from 1-4'
			1							
			2							
			3							
			4							
	+62.0	R2 (0-24) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	5	2	BAG	24/60			95.9 108.9 47.6 41.7 40.9	Petroleum-like odor from 8-10'
			6							
			7							
			8							
			9							
	+56.0	R3 No recovery	10	3	BAG	0/60				
			11							
			12							
			13							
			14							
	+51.0	R4 (0-48) Reddish brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	15	4	BAG	48/60			2515.1 4668.5 4258.3 4811.0 4582.4 3764.1 1596.0 1778.0	Petroleum-like odor from 16-20'
			16							
			17							
			18							
			19							
			20							

Project			805-825 Atlantic Avenue			Project No.			170384501		
Location			Brooklyn, NY			Elevation and Datum			NA 66		
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
				Number	Type	Recov. (in)	Penetr. resist. BL/ft	PID (ppm)			
	+46.0	R5 (0-12) Gray boulder	20	5	BAG	12/60		16.0 19.4 18.8	Hard drilling, boulder encountered at 24'. Petroleum-like odor from 24-25'		
	21										
	22										
	23										
	24										
	+41.0	R6a (0-24) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist) R6b (24-48) Brown coarse SAND, trace fine gravel, trace cobble	25	6	BAG	48/60		300.5 394.8 562.6 817.6 827.4 63.8 28.0 27.6 27.4	Petroleum-like odor from 26-30'		
	26										
	27										
	28										
	29										
	30										
	31										
	32										
	33										
	34										
	+38.0	R7a (0-24) Grayish brown fine GRAVEL, trace cobble R7b (24-48) Brown coarse SAND, some fine gravel, trace cobble	35	7	BAG	48/60		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0			
	36										
	37										
	38										
	39										
	40										
	41										
	42										
	43										
	44										
	+33.0	R8 (0-12) Reddish gray fine GRAVEL, trace cobble	45	8	BAG	12/60		0.0 0.0 0.0			
	46										
	47										
	48										
	49										
	+31.0	R9 No recovery	50	9	BAG	0/60					
	51										
	52										
	53										
	54										
	+26.0		55								
	+21.0		56								



Project			Project No.							
805-825 Atlantic Avenue			170384501							
Location			Elevation and Datum							
Brooklyn, NY			NA 66							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID (ppm)		
	+21.0	R10 No recovery	45	10	BAG	0/60				
			46							
			47							
			48							
			49							
	+16.0	R11 No recovery	50	11	BAG	0/60				
			51							
			52							
			53							
			54							
	+11.0	R12 No recovery	55	12	BAG	0/60				
			56							
			57							
			58							
			59							
	+6.0	R13 No recovery	60	13	BAG	0/60				
			61							
			62							
			63							
			64							
	+1.0	R14 No recovery	65	14	BAG	0/60				
			66							
			67							
			68							
			69							
	-4.0			70						



Project		Project No.							
805-825 Atlantic Avenue		170384501							
Location		Elevation and Datum							
Brooklyn, NY		NA 66							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist. BL/6in		PID (ppm)
	-4.0	R15 No recovery	70						End of boring at 72'. Completed as monitoring well MW-205, screened from 57-72'.
			71	15	BAG	0/24			
	-6.0		72						
			73						
			74						
			75						
			76						
			77						
			78						
			79						
			80						
			81						
			82						
			83						
			84						
			85						
			86						
			87						
			88						
			89						
			90						
			91						
			92						
			93						
			94						
			95						

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW-203

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			+ 66 NAD 83		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			7/14/2020		7/15/2020
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Daybi Pacheco		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tomas Monti, Andrew Nesci		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 72 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 57 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
			Well pumped until purge water no longer appeared turbid		
TOP OF CASING			ELEVATION		DEPTH (ft)
			66		0
TOP OF SEAL			ELEVATION		DEPTH (ft)
			65		1
TOP OF FILTER			ELEVATION		DEPTH (ft)
			10.0		56.0
TOP OF SCREEN			ELEVATION		DEPTH (ft)
			9.0		57.0
BOTTOM OF BORING			ELEVATION		DEPTH (ft)
			-6.0		72.0
SCREEN LENGTH			15'		
SLOT SIZE			No. 20 Slot; 0.020 Inches		
GROUNDWATER ELEVATIONS					
ELEVATION		DATE	DEPTH TO WATER		
		7/16/2020	57.75		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
			72.0		
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C.					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW-204

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			+ 66 NAD 83		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			7/13/2020		7/14/2020
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Daybi Pacheco		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tomas Monti, Andrew Nesci		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 72 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 57 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
DEVELOPMENT CONFIRMATION		Well pumped until purge water no longer appeared turbid			
TOP OF CASING			ELEVATION		DEPTH (ft)
			66		0
TOP OF SEAL			ELEVATION		DEPTH (ft)
			65		1
TOP OF FILTER			ELEVATION		DEPTH (ft)
			10.0		56.0
TOP OF SCREEN			ELEVATION		DEPTH (ft)
			9.0		57.0
BOTTOM OF BORING			ELEVATION		DEPTH (ft)
			-6.0		72.0
SCREEN LENGTH			15'		
SLOT SIZE			No. 20 Slot; 0.020 Inches		
GROUNDWATER ELEVATIONS					
ELEVATION		DATE	DEPTH TO WATER		
		7/16/2020	57.7		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
WELL DETAILS					
SUMMARY SOIL CLASSIFICATION					
DEPTH (FT)					
0					
See boring log					
55.0					
56.0					
57.0					
72.0					
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C.					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

MW-205

PROJECT			PROJECT NO.		
805-825 Atlantic Avenue			170384501		
LOCATION			ELEVATION AND DATUM		
Brooklyn, NY			+ 66 NAD 83		
DRILLING AGENCY			DATE STARTED		DATE FINISHED
AARCO Environmental Services, Corp.			7/24/2020		7/27/2020
DRILLING EQUIPMENT			DRILLER		
Sonic Rig			Daybi Pacheco		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Tomas Monti, Andrew Nesci		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
6"			Overburden		
RISER MATERIAL		DIAMETER	TYPE OF BACKFILL MATERIAL		
PVC		2"	Grout w/ 5% Bentonite		
TYPE OF SCREEN		DIAMETER	TYPE OF WELL PACK		TYPE OF SEAL MATERIAL
PVC No. 20 Slot		2"	No. 1 Sand		Grout w/ 5% Bentonite
METHOD OF INSTALLATION					
Advance 6-inch casing to 72 feet bgs, insert 15 feet of 0.02-inch slotted PVC screen and 57 feet of solid PVC riser, annulus filled with No. 1 filter sand to approximately 1 foot above the top of screen, bentonite for 1 foot, and then a bentonite/grout mixture to the surface.					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP		Submersible
DRILLER OR LANGAN		Driller	MAX PUMP RATE		N/A
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME		15 gallons
DEVELOPMENT CONFIRMATION					
Well pumped until purge water no longer appeared turbid					
TOP OF CASING			ELEVATION		DEPTH (ft)
			66		0
TOP OF SEAL			ELEVATION		DEPTH (ft)
			65		1
TOP OF FILTER			ELEVATION		DEPTH (ft)
			10.0		56.0
TOP OF SCREEN			ELEVATION		DEPTH (ft)
			9.0		57.0
BOTTOM OF BORING			ELEVATION		DEPTH (ft)
			-6.0		72.0
SCREEN LENGTH			15'		
SLOT SIZE			No. 20 Slot; 0.020 Inches		
GROUNDWATER ELEVATIONS					
ELEVATION		DATE	DEPTH TO WATER		
		7/27/2020	55		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
ELEVATION		DATE	DEPTH TO WATER		
WELL DETAILS			SUMMARY SOIL CLASSIFICATION		
			See boring log		
			0		
			55.0		
			56.0		
			57.0		
			72.0		
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology D.P.C.					
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York					

GROUND WATER SAMPLE FIELD INFORMATION FORM

[illegible]

GROUND WATER SAMPLE FIELD INFORMATION FORM

[illegible]

GROUND WATER SAMPLE FIELD INFORMATION FORM

[illegible]

GROUNDWATER SAMPLE FIELD INFORMATION FORM

[illegible]

GROUNDWATER SAMPLE FIELD INFORMATION FORM

[illegible]

GROUNDWATER SAMPLE FIELD INFORMATION FORM

[illegible]

Notes:

1. Well depths and groundwater depths were measured in feet below the top of well casing.
2. Well and tubing diameters are measured in inches.
3. PID = Photoionization Detector
4. PPM = Parts per million
5. pH = Hydrogen ion concentration
6. ORP = Oxidation-reduction potential, measured in millivolts (mV)
7. DO = Dissolved Oxygen, measured in milligrams per liter (mg/L)
8. DTW = Depth to water
9. mS/cm = milli-Siemans per centimeter
10. NTU = Nephelometric Turbidity Unit

LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor, New York

PDB Sampling Documentation Form
805-825 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No. C224228
Langan Project No. 170384501

WELL ID	SCREENED INTERVAL (FEET BGS)	TOTAL DEPTH (FEET)	TOP OF CASING ELEVATION (NAVD88)	OCTOBER 13, 2021			OCTOBER 29, 2021				
				PID READING (PPM)	DEPTH TO GROUNDWATER (FEET BGS)	DEPLOYMENT DEPTH (FEET BGS)	PID READING (PPM)	DEPTH TO GROUNDWATER (FEET BGS)	PDB SIZE	SAMPLE(S)	GROUNDWATER NOTES (i.e., ODOR, COLOR, ETC.)
MW-203	52 to 67	67	61.35	0.3	52.27	56	0.0	52.28	500 mL PDB deployed	MW-203_10292021, DUP02_10292021	Clear
MW-204		67.43	61.35	0.0	52.5	56	0.0	52.47	500 mL PDB deployed	MW-204_10292021	Clear, petroleum-like odor
MW-205		67.43	61.43	0.1	52.58	56	0.0	52.61	750 mL PDB deployed	MW-205_10292021 DUP01_10292021, MS/MSD	Clear, petroleum-like odor

Notes:

1. NAVD88 - North American Vertical Datum of 1988
2. BGS = Below grade surface
3. Top of casing elevations are approximate based on the "550 Clinton Floor Plan- Cellar" drawing prepared by Morris Adjmi Architects, dated May 29, 2020
4. PPM = Parts per million
5. PDB = Passive diffusion bag
6. PID = Photoionization detector
7. mL = millileter

PDB Sampling Documentation Form
805-825 Atlantic Avenue
Brooklyn, New York
NYSDEC BCP Site No. C224228
Langan Project No. 170384501

WELL ID	SCREENED INTERVAL (FEET BGS)	TOTAL DEPTH (FEET)	TOP OF CASING ELEVATION (NAVD88)	DECEMBER 29, 2021			JANUARY 13, 2022				
				PID READING (PPM)	DEPTH TO GROUNDWATER (FEET BGS)	DEPLOYMENT DEPTH (FEET BGS)	PID READING (PPM)	DEPTH TO GROUNDWATER (FEET BGS)	PDB SIZE	SAMPLE(S)	GROUNDWATER NOTES (i.e., ODOR, COLOR, ETC.)
MW-203	52 to 67	67	61.35	0.0	52.4	56	0.0	52.4	500 mL PDB deployed	MW-203_011322	Clear
MW-204		67.43	61.35	0.0	52.62	56	0.0	52.61	500 mL PDB deployed	MW-204_011322 DUP02_011322	Clear, petroleum-like odor
MW-205		67.43	61.43	0.0	52.69	55	0.0	52.68	750 mL PDB deployed	MW-205_011322 DUP01_011322, MS/MSD	Clear, petroleum-like odor

Notes:

1. NAVD88 - North American Vertical Datum of 1988
2. BGS = Below grade surface
3. Top of casing elevations are approximate based on the "550 Clinton Floor Plan- Cellar" drawing prepared by Morris Adjmi Architects, dated May 29, 2020
4. PPM = Parts per million
5. PDB = Passive diffusion bag
6. PID = Photoionization detector
7. mL = milliliter
8. MS/MSD = matrix spike/matrix spike duplicate

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental Services Corp.				Date Started 1/10/18		Date Finished 1/10/18	
Drilling Equipment Geoprobe 6610DT				Completion Depth 16.5 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 4		Undisturbed NA	
Casing Diameter (in) NA		Casing Depth (ft) NA		Water Level (ft.) First ∇ NA		Completion ∇ NA	
Casing Hammer NA		Weight (lbs) NA		Drop (in) NA		Drilling Foreman Tom Seickel	
Sampler 4-foot acetate liner				Field Engineer T. Morgan			
Sampler Hammer NA		Weight (lbs) NA		Drop (in) NA			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recon. (in)	Penetr. resist	PID Reading (ppm)	
X		R1A (0-12") Medium dense, grey over light brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick, concrete (dry) [FILL] R1B (12-26") Medium dense, light brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete (dry) [FILL]	0					0.0	09:30 Collect sample SB101_0-2
	1					0.0			
	2	1	MC	26/48		0.0			
	3								
	4								
	5								
	6	2	MC	20/48					
	7					0.0	09:50 Collect sample SB101_11-12		
	8					0.0			
	9					0.0			
	10	3	MC	19/48					
	11					0.0			
	12					0.0			
	13								
	14	4	MC	24/48		0.0	End of boring at 16 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.		
	15					0.0			
16					0.0				
17									
		R2 (0-20") Medium dense, reddish brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick, concrete, mica (dry) [FILL]	18						
		R3 (0-19") Medium dense, reddish brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick, concrete, asphalt (dry) [FILL]	19						
		R4A (0-12") Medium dense, reddish brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick, concrete, (dry) [FILL] R4A (12-24") Medium dense, reddish brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick, concrete, (moist) [FILL]	20						

Project 805-825 Atlantic Avenue			Project No. 170384501		
Location Brooklyn, NY			Elevation and Datum NA		
Drilling Company AARCO Environmental Services Corp.			Date Started 1/12/18		Date Finished 1/12/18
Drilling Equipment Geoprobe 7822DT			Completion Depth 24 ft		Rock Depth NA
Size and Type of Bit 2-inch direct push			Number of Samples	Disturbed 3	Undisturbed NA
Casing Diameter (in) NA			Casing Depth (ft) NA	Water Level (ft.) First NA	Completion NA
Casing Hammer NA			Weight (lbs) NA	Drop (in) NA	24 HR. NA
Sampler 4-foot acetate liner			Drilling Foreman Tom Seickel		
Sampler Hammer NA			Field Engineer T. Morgan		

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/in	PID Reading (ppm)	
		R1 (0-25") Medium dense, grey over light brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete (dry)[FILL]	0					0.5	
			1					1.0	
			2	1	MC	25/48		0.6	
			3					0.0	
			4						
			5						
		R2 (0-24") Medium dense, grey over brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete (dry)[FILL]	6	2	MC	24/48		0.0	
			7					1.4	
			8					0.0	
			9					0.0	
		R3 (0-21") Medium dense, light brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete (dry)[FILL]	10	3	MC	21/48			
			11					0.0	
			12					0.0	
			13					0.3	
			14	4	MC	23/48		0.9	
		R4 (0-23") Medium dense, light brown, coarse SAND, some medium sand, trace fine sand, trace fine gravel, concrete (dry)[FILL]	15					1.0	
			16					0.4	
			17						
		R5 (0-30") Medium dense, brown, medium SAND, some coarse sand, trace fine sand, trace fine gravel, concrete, brick (dry)[FILL]	18	5	MC	30/48		0.0	
			19					0.0	
			20					0.0	

Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
		R6A (0-20") Medium dense, brown, medium SAND, some fine sand, trace coarse sand, trace fine gravel, concrete, brick (dry)[FILL]	20						08:30 Collect sample SB101A_22-23
			21						
		R6B (20-24") Light grey fragmented rock [GP]	22	6	MC	24/48		0.0	Refusal at 24 feet bgs. Boring converted to monitoring well MW-101.
			23					0.0	
			24					0.0	
			25						
			26	7	MC	0/48			
			27						
		R7 No Recovery	28						
			29						
			30						
			31						
			32						
			33						
			34						
			35						
			36						
			37						
			38						
			39						
			40						
			41						
			42						
			43						
			44						
			45						

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental				Date Started 1/23/18		Date Finished 1/23/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 13 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 4		Disturbed NA	
Casing Diameter (in) NA				Casing Depth (ft) NA		Undisturbed NA	
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA	
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer T. Morgan			
Weight (lbs) NA				Drop (in) NA			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recovery (in)	Penetr. resist. BLU/in	PID Reading (ppm)	
	0	Concrete	0						
	1	R1 2-3' void under slab, no recovery.	1	1	MC	0			
	2		2						
	3		3						
	4		4	2	MC	10/36			10:50 Collect sample SB103_3-4
	5	R2 [0-10"] Medium dense, tan over brown medium SAND, some fine sand, trace fine gravel, trace silt, brick (dry) [FILL]	5					0.0	
	6		6					0.0	
	7		7					0.0	
	8		8	3	MC	15/48			
	9	R3 [0-15"] Medium dense, mottled gray over brown medium SAND, some fine sand, trace fine gravel, brick, concrete, plastic (moist) [FILL]	9					0.0	11:00 Collect sample SB103_8-10
	10		10					0.0	
	11		11					0.0	
	12		12	4	MC	14/36			
	13	R4 [0-14"] Medium dense, tan over reddish brown medium SAND, trace fine gravel, trace fine SAND (moist) [SP]	13					0.0	11:55 Collect sample SB103_12-13
	14		14					0.0	End of boring at 13 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.
	15		15					0.0	
	16		16						
	17		17						
	18		18						
	19		19						
	20		20						

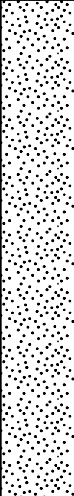
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Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental Services Corp.				Date Started 1/23/18		Date Finished 1/23/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 16 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 5		Disturbed NA	
Casing Diameter (in) NA				Casing Depth (ft) NA		Undisturbed NA	
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA	
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer T. Morgan			
Weight (lbs) NA				Drop (in) NA			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	BLU6in		
		Concrete	0							
		R1 Air space	1	1	MC	0/36				
			2							
		R2 (0-11") Medium dense, light brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, brick (dry)[FILL]	3						0.0	
			4	2	MC	11/36			0.0	
			5							
			6							
		R3A (0-6") Medium dense, light brown over brown, medium SAND, trace fine sand, trace fine gravel, brick, concrete (dry)[FILL]	8	3	MC	13/48			0.0	
			9						0.0	
		R3B (6-13") Medium dense, light brown over brown, medium SAND, trace fine sand, trace fine gravel (moist)[SP]	10							
			11							
			12	4	MC	10/48				
		R4 (0-10") Medium dense, dark grey over brown, medium SAND, trace fine gravel, trace fine sand (dry)[SP]	13						0.0	
			14						0.0	
		R5 (0-5") Medium dense, rust over brown, medium SAND, trace fine gravel (moist)[SP]	15	5	MC	5/24			0.0	
			16							12:00 Collect sample SB103A_15-16
			17							End of boring at 16 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.
			18							
			19							
			20							

Project 805-825 Atlantic Avenue			Project No. 170384501		
Location Brooklyn, NY			Elevation and Datum NA		
Drilling Company AARCO Environmental Services Corp.			Date Started 1/10/18		Date Finished 1/10/18
Drilling Equipment Geoprobe 6610DT			Completion Depth 32 ft		Rock Depth NA
Size and Type of Bit 2-inch direct push			Number of Samples	Disturbed 8	Undisturbed NA
Casing Diameter (in) NA			Casing Depth (ft) NA	Water Level (ft.) First NA	Completion NA
Casing Hammer NA	Weight (lbs) NA	Drop (in) NA	Drilling Foreman Tom Seickel		
Sampler 4-foot acetate liner			Field Engineer T. Morgan		
Sampler Hammer NA	Weight (lbs) NA	Drop (in) NA			

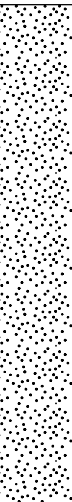
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recon. (in)	Penetr. resist	PID Reading (ppm)	
		Concrete	0					0.0	
		R1 (0-14") Medium dense, light brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete, brick, asphalt (dry) [FILL]	1					0.0	
			2	1	MC	14/48			
			3						
			4						
			5						
			6	2	MC	12/48			
			7					0.0	
		R2 (0-26") Medium dense, light brown over reddish brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete, brick, mica (dry) [FILL]	8					0.0	
			9						
			10	3	MC	20/48			
		R3A (0-14") Medium dense, grey over brown, medium SAND, some fine sand, trace fine gravel, concrete, brick (moist) [FILL]	11					2.5	
		R3B (14-20") Medium dense, tan over light brown, medium SAND, some fine sand, trace fine gravel, concrete (dry) [FILL]	12					1.0	
			13					0.0	Pertoluem -like odor from 11 to 12 feet below grade surface (bgs)
		R4A (0-20") Medium dense, light brown over brown, medium SAND, some fine sand, trace silt, trace fine gravel, concrete, brick (wet) [FILL]	14	4	MC	32/48		0.5	
			15					1.0	Fuel-like odor and sheen from 13 to 16 feet bgs
			16					0.9	
			17					0.5	11:45 Collect sample SB106B_14-15
			18	5	MC	28/48		0.0	
			19					2.5	
		R4B (20-32") Medium dense, reddish brown, sine silty SAND, some medium sand, trace fine gravel (dry) [FILL]	20					1.0	
								0.2	Fuel-like odor and sheen from 18 to 20 feet bgs (confrim depth)
								0.0	

Project			Project No.										
805-825 Atlantic Avenue			170384501										
Location			Elevation and Datum										
Brooklyn, NY			NA										
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)				
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)					
		R5A (0-20") Medium dense, grey over brown, medium SAND, some fine sand,trace silt, trace fine gravel, brick, asphlat (wet) [FILL]	20										
			21					0.0					
			22	6	MC	40/48		0.0	12:40 Collect sample SB106B_21-23				
			23					0.0					
			24					0.0					
			25					0.0					
					R5B (20-40") Medium dense, light brown over reddish brown, medium SAND, some fine sand,trace silt, trace fine gravel, concrete, brick, mica (dry) [FILL]	26	7	MC	42/48		0.0	13:15 Collect sample SB106B_23-25, EBMS01_011018, & EBMSD01_011018	
						27					0.0		
						28					0.0		
						29					0.0		
30	8	MC				34/48		0.0					
31								0.0					
32								0.0					
		R6 (0-42") Medium dense, tan over brown, medium SAND, some fine sand, trace fine gravel (wet) [SP]				33							End of boring at 32 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.
						34							
						35							
			36										
			37										
			38										
			39										
			40										
			41										
			42										
			43										
			44										
			45										

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental				Date Started 2/13/18		Date Finished 2/14/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 30 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 7		Undisturbed NA	
Casing Diameter (in) NA		Casing Depth (ft) NA		Water Level (ft.) First ∇ NA		Completion ∇ NA	
Casing Hammer NA		Weight (lbs) NA		Drop (in) NA		24 HR. ∇ NA	
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer T. Morgan			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recon. (in)	Penetr. resist	PID Reading (ppm)	
		Concrete	0					0.0	
		R1A [0-6"] Dense, light gray concrete fragments	1					0.0	
			2	1	MC	10/48			09:05 Collect sample SB107_1-2
			3						
		R1B [6-10"] Medium dense, light gray over brown medium SAND, some fine sand, trace fine gravel, with concrete wood (dry) [FILL]	4						
			5						
			6	2	MC	14/48			
		R2 [0-14"] Loose, grayish brown medium SAND, some fine gravel, trace fine sand, with wood (dry) [FILL]	7					0.0	
			8					0.0	09:25 Collect sample SB107_7-8
			9						
			10	3	MC	20/48			
		R3 [0-20"] Medium dense light brown over brown medium SAND, some fine sand, trace fine gravel, with concrete, brick, asphalt (moist) [FILL]	11					0.0	
			12					0.0	09:30 Collect sample SB107_11-12
			13						
		R4A [0-12"] Medium dense, grayish brown medium SAND, some fine sand, trace fine gravel, with brick, asphalt (dry) [FILL]	14	4	MC	32/48		0.0	
			15					0.0	09:45 Collect sample SB107_14-15
		R4B [12-32"] Medium dense, brown fine SAND, some medium sand, trace fine gravel (moist) [SP]	16					0.0	
			17					0.0	09:50 Collect sample SB107_15-16
			18	5	MC	44/48		0.0	
		R5 [0-45"] Dense, light brown over reddish brown medium SAND, some fine sand, trace fine gravel, trace silt (dry) [SP]	19					0.0	
			20					0.0	

\\LANGAN.COM\DATA\NYC\DATA5170384501\ENGINEERING DATA\ENVIRONMENTAL\RIWP\INVESTIGATION\GINTIRI SOIL BORINGS_2018.02.05.GPJ ... 5/23/2018 7:54:02 PM ... Report Log - LANGAN

Project			805-825 Atlantic Avenue			Project No.			170384501		
Location			Brooklyn, NY			Elevation and Datum			NA		
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)			
		R6A [0-6"] Dense, light brown over reddish brown medium SAND, some fine sand, trace fine gravel, trace silt, with white powdery pieces (dry) [SP] R6B [6-35"] Dense, light brown over reddish brown medium SAND, some fine sand, trace fine gravel, trace silt (dry) [SP] <									

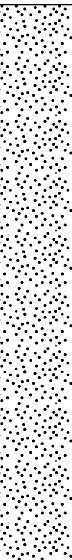
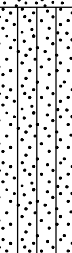
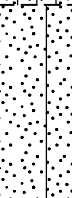
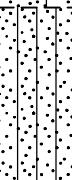
Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental Services Corp.				Date Started 1/15/18		Date Finished 1/15/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 16 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 4		Disturbed NA	
Casing Diameter (in) NA				Casing Depth (ft) NA		Undisturbed NA	
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA	
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer T. Morgan			
Weight (lbs) NA				Drop (in) NA			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/in	PID Reading (ppm)	
		Concrete	0						
		R1 (0-31") Loose, reddish brown, fine silty SAND, trace medium sand, trace fine gravel, concrete, brick (dry)[FILL]	1	1	MC	31/48		0.0	10:40 Collect sample SB108_0-2
			2					0.0	
			3					0.0	10:45 Collect sample SB108_2-3
			4					0.0	
		R2 (0-23") Loose, brown over reddish brown, fine silty SAND, trace medium sand, trace fine gravel, concrete, brick (dry)[FILL]	6	2	MC	23/48		0.0	
			7					0.0	10:55 Collect sample SB108_6-8
			8					0.0	
		R3 (0-35") Medium dense, brown over reddish brown, fine silty SAND, trace medium sand, trace fine gravel, brick (dry)[FILL]	9					0.0	
			10	3	MC	35/48		0.0	
			11					0.0	
			12					0.0	11:00 Collect sample SB108_11-12
			13					0.0	
			14	4	MC	10/48		0.0	
		R4 (0-10") Medium dense, light brown over reddish brown, fine silty SAND, trace medium sand, trace fine gravel, brick (dry)[FILL]	15					0.1	11:05 Collect sample SB108_15-16
			16						End of boring at 16 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.
			17						
			18						
			19						
			20						

Project 805-825 Atlantic Avenue			Project No. 170384501		
Location Brooklyn, NY			Elevation and Datum NA		
Drilling Company AARCO Environmental Services Corp.			Date Started 1/24/18		Date Finished 1/24/18
Drilling Equipment Geoprobe 7822DT			Completion Depth 39 ft		Rock Depth NA
Size and Type of Bit 2-inch direct push			Number of Samples	Disturbed 10	Undisturbed NA
Casing Diameter (in) NA			Casing Depth (ft) NA	Water Level (ft.) First NA	Completion NA
Casing Hammer NA			Weight (lbs) NA	Drop (in) NA	24 HR. NA
Sampler 4-foot acetate liner			Drilling Foreman Tom Seickel		
Sampler Hammer NA			Weight (lbs) NA	Drop (in) NA	Field Engineer T. Morgan

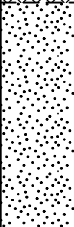
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BLU6in	PID Reading (ppm)	
		Concrete	0						
		R1A (0-11") Medium dense, dark grey over brown, medium SAND, some fine sand, trace fine gravel, concrete (dry)[FILL]	1					0.2	08:10 Collect sample SB109_0-1
		R1B (11-19") Medium dense, light brown, medium SAND, some fine sand, trace fine gravel (dry)[FILL]	2	1	MC	10/48		0.2	
			3					0.2	
			4					0.1	
			5						
		R2 (0-22") Medium dense, light brown, medium SAND, some fine sand, trace fine gravel (dry)[SP]	6	2	MC	22/48			
			7					0.1	
			8					0.1	10:45 Collect sample SB109_7-8
			9					0.1	
		R3 (0-24") Medium dense, light brown, medium SAND, some fine sand, trace fine gravel (dry)[SP]	10	3	MC	24/48		0.1	
			11					0.2	
			12					0.2	09:40 Collect sample SB109_11-12
			13					0.2	
			14	4	MC	25/48		0.1	
		R4 (0-22") Medium dense, reddish brown over brown, fine SAND, trace fine gravel, trace medium sand, trace silt (dry)[SP]	15					0.2	
			16					0.1	
			17					0.1	
			18	5	MC	20/48			
		R5A (0-6") Grey fine GRAVEL (dry)[GP]	19					0.0	09:50 Collect sample SB109_19-20
		R5B (6-20") Medium dense, reddish brown, medium SAND, trace fine gravel, trace fine sand, trace silt (dry)[SP]	20					0.0	

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Project 805-825 Atlantic Avenue			Project No. 170384501						
Location Brooklyn, NY			Elevation and Datum NA						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	
		R6 (0-22") Medium dense, brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel (dry)[SP]	20						09:55 Collect sample SB109_22-24, EBMS02_012418, & EBMSD02_012418
			21						
			22	6	MC	33/48		0.0	
			23					0.0	
			24					0.0	
			25					0.0	
			26	7	MC	22/48		0.0	
			27					0.0	
			28					0.0	
			29					0.0	
		R7A (0-10") Medium dense, brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel (dry)[SM] R7B (10-22") Medium dense, grey over light brown, medium SAND, come fine sand, trace fine gravel, trace silt (dry)[SM]	30	8	MC	45/48		0.0	11:05 Collect sample SB109_28-30
			31					0.0	
			32					0.0	
			33					0.0	
		R8 (0-45") Medium dense, grey over light brown, silty fine SAND, some medium sand, trace fine gravel (dry)[SM]	34	9	MC	35/48		0.0	
			35					0.0	
			36					0.0	
			37					0.0	
		R9 (0-35") Medium dense, reddish brown over brown, fine SAND, some silt, trace medium sand, trace fine gravel (dry)[SM]	38	10	MC	35/36		0.0	
			39					0.0	
			40					0.0	
			41					0.0	
		R10 (0-35") Medium dense, light brown over brown, silty fine SAND, trace medium sand, trace fine gravel (dry)[SM]	42					0.0	End of boring at 39 feet below grade surface. Boring backfilled with clean drill cuttings and patched with cement.
			43					0.0	
			44					0.0	
			45					0.0	
			46					0.0	

Project 805-825 Atlantic Avenue				Project No. 170384501																																																																																																																																																																																																																													
Location Brooklyn, NY				Elevation and Datum NA																																																																																																																																																																																																																													
Drilling Company AARCO Environmental Services Corp.				Date Started 1/15/18		Date Finished 1/15/18																																																																																																																																																																																																																											
Drilling Equipment Geoprobe 7822DT				Completion Depth 75 ft		Rock Depth NA																																																																																																																																																																																																																											
Size and Type of Bit 2-inch direct push				Number of Samples		Disturbed 8																																																																																																																																																																																																																											
Casing Diameter (in) NA				Casing Depth (ft) NA		Undisturbed NA																																																																																																																																																																																																																											
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA																																																																																																																																																																																																																											
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel																																																																																																																																																																																																																													
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<table border="1"> <thead> <tr> <th rowspan="2">MATERIAL SYMBOL</th> <th rowspan="2">Elev. (ft)</th> <th rowspan="2">Sample Description</th> <th rowspan="2">Depth Scale</th> <th colspan="4">Sample Data</th> <th rowspan="2">Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)</th> </tr> <tr> <th>Number</th> <th>Type</th> <th>Recov. (in)</th> <th>Penetr. resist BL/6in</th> <th>PID Reading (ppm)</th> </tr> </thead> <tbody> <tr> <td rowspan="20"></td> <td>0</td> <td>Concrete</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> <td rowspan="5">11:15 Collect sample SB110_0-2</td> </tr> <tr> <td>1</td> <td>R1 (0-19") Loose, reddish brown, silty fine SAND, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.4</td> </tr> <tr> <td>2</td> <td></td> <td>1</td> <td>MC</td> <td>19/48</td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>5</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>6</td> <td>R2 (0-23") Medium dense, light brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> <td rowspan="5">11:25 Collect sample SB110_10-12</td> </tr> <tr> <td>7</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>11</td> <td>R3 (0-29") Medium dense, light brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.1</td> <td rowspan="5">11:40 Collect sample SB110_17-18</td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>14</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>15</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>16</td> <td>R4 (0-35") Medium dense, grey over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.5</td> <td rowspan="5"></td> </tr> <tr> <td>17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> </tr> <tr> <td>18</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.4</td> </tr> <tr> <td>19</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1.4</td> </tr> <tr> <td>20</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.6</td> </tr> <tr> <td></td> <td></td> <td>R5A (0-13") Loose, black over reddish brown, fine SAND, trace silt, trace medium sand, concrete (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3.0</td> <td></td> </tr> <tr> <td></td> <td></td> <td>R5B (13-36") Medium dense, brown over reddish brown, fine SAND, trace silt, trace medium sand, trace fine gravel, concrete, brick (dry)[FILL]</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.2</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.0</td> <td></td> </tr> </tbody> </table>								MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)		0	Concrete						0.0	11:15 Collect sample SB110_0-2	1	R1 (0-19") Loose, reddish brown, silty fine SAND, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.4	2		1	MC	19/48			0.0	3								4								5									6	R2 (0-23") Medium dense, light brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.0	11:25 Collect sample SB110_10-12	7							0.0	8							0.0	9							0.0	10							0.0	11	R3 (0-29") Medium dense, light brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.1	11:40 Collect sample SB110_17-18	12							0.0	13							0.0	14							0.0	15							0.0	16	R4 (0-35") Medium dense, grey over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.5		17							0.0	18							0.4	19							1.4	20							3.6			R5A (0-13") Loose, black over reddish brown, fine SAND, trace silt, trace medium sand, concrete (dry)[FILL]						3.0				R5B (13-36") Medium dense, brown over reddish brown, fine SAND, trace silt, trace medium sand, trace fine gravel, concrete, brick (dry)[FILL]						0.2										0.0	
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data								Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)																																																																																																																																																																																																																					
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	11	R3 (0-29") Medium dense, light brown over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.1	11:40 Collect sample SB110_17-18																																																																																																																																																																																																																								
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	16	R4 (0-35") Medium dense, grey over reddish brown, fine SAND, some silt, trace medium sand, trace fine gravel, concrete, brick, asphalt (dry)[FILL]						0.5																																																																																																																																																																																																																									
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		R5A (0-13") Loose, black over reddish brown, fine SAND, trace silt, trace medium sand, concrete (dry)[FILL]						3.0																																																																																																																																																																																																																									
		R5B (13-36") Medium dense, brown over reddish brown, fine SAND, trace silt, trace medium sand, trace fine gravel, concrete, brick (dry)[FILL]						0.2																																																																																																																																																																																																																									
								0.0																																																																																																																																																																																																																									

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Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	
		R6 (0-48") Medium dense, light grey over reddish brown, fine SAND, trace medium sand, trace silt, trace fine gravel, concrete, asphlat (dry)[FILL]	20	6	MC	48/48		0.0	12:15 Collect sample SB110_22-24
			21					0.0	
			22					0.0	
			23					0.0	
		R7 (0-20") Medium dense, reddish brown over brown, fine SAND, trace medium sand, trace fine gravel (dry)[SP]	24	7	MC	20/48		0.0	11:55 Collect sample SB110_26-28
			25					0.0	
			26					0.1	
			27					0.0	
		R8 (0-14") Medium dense, light brown over brown, fine SAND, some medium sand, trace fine gravel (dry)[SP]	28	8	MC	14/24			12:10 Collect sample SB110_29-30
			29						
			30						
			31						
			32						End of boring at 30 feet below grade surface. Boring converted into monitoring well MW110.
			33						
			34						
			35						
			36						
			37						
			38						
			39						
			40						
			41						
			42						
			43						
			44						
			45						

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental Services Corp.				Date Started 2/17/18		Date Finished 2/18/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 38 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 7		Undisturbed NA	
Casing Diameter (in) NA		Casing Depth (ft) NA		Water Level (ft.) First ∇ NA		Completion ∇ NA	
Casing Hammer NA		Weight (lbs) NA		Drop (in) NA		24 HR. ∇ NA	
Sampler 4-foot acetate liner				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer L. McCartney			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/in	PID Reading (ppm)	
		4-inch concrete slab	0						
		R1 (0-32") Dense, brown fine SAND, some silt, trace clay, trace coarse sand, trace fine gravel (dry to moist) [FILL]	1	1	MACROCORE	32		0.0	08:10 Collect samples SB111_0-2 and DUP06_021718
			2					0.0	
			3					0.0	
			4					0.0	
		R2 (0-37") Dense, brown fine SAND, some silt, trace coarse sand, trace fine gravel (dry to moist) [FILL]	5	2	MACROCORE	37		0.0	08:15 Collect sample SB111_6-8 (hold)
			6					0.0	
			7					0.0	
			8					0.0	
		R3 (0-40") Medium-dense, brown fine SAND, some silt, trace clay, trace medium sand, trace fine gravel (dry to moist) [FILL]	9	3	MACROCORE	40		0.0	Refusal with macrocore at 11.5 feet bgs. Auger to 9 feet bgs, refusal, switch to air rotary to drill through obstruction, advance macrocore 12-15 feet bgs, refusal at 15 feet bgs. 09:35 Collect sample SB111_13-15
			10					0.0	
			11					0.0	
			12					0.0	
		R4 (0-20') Dense, brown fine SAND, some silt, trace clay, trace fine gravel (dry to moist) [FILL]	13	4	MACROCORE	20		0.0	Collect PID readings of cuttings
			14					0.0	
			15					0.0	
			16					0.0	
			17					0.0	
			18					0.0	
			19					0.0	
			20					0.0	

Project			Project No.							
805-825 Atlantic Avenue			170384501							
Location			Elevation and Datum							
Brooklyn, NY			NA							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)		
		R5A (0-2") Dense, brown fine SAND, some silt, trace clay, trace fine gravel, angular clasts (moist) [FILL] R5B (2-17") Dense, reddish-brown fine SAND, some clay, trace silt, trace medium sand, trace coarse sand, trace fine gravel, rounded to angular clasts (moist) [TILL]	20						0.0	Macrocore 24-26 feet bgs until refusal 14:20 Collect sample SB111_24-26 Collect PID readings of cuttings

R5A (0-2") Dense, brown fine SAND, some silt, trace clay, trace fine gravel, angular clasts (moist) [FILL]
 R5B (2-17") Dense, reddish-brown fine SAND, some clay, trace silt, trace medum sand, trace coarse sand, trace fine gravel, rounded to angular clasts (moist) [TILL]

Macrocore 24-26 feet bgs until refusal
 14:20 Collect sample SB111_24-26

Collect PID readings of cuttings

02/18/2018 08:15 collect sample SB111_36-38

Project 805-825 Atlantic Avenue				Project No. 170384501																																																																																											
Location Brooklyn, NY				Elevation and Datum NA																																																																																											
Drilling Company AARCO Environmental				Date Started 1/30/18		Date Finished 1/31/18																																																																																									
Drilling Equipment Geoprobe 7822DTq				Completion Depth 44 ft		Rock Depth NA																																																																																									
Size and Type of Bit 2-inch direct push				Number of Samples 13		Disturbed NA																																																																																									
Casing Diameter (in) NA				Casing Depth (ft) NA		Core NA																																																																																									
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA																																																																																									
Sampler 4-foot acetate liner				Drilling Foreman Daybi Pacheco & Tom Seickel																																																																																											
Sampler Hammer NA				Field Engineer T. Morgan																																																																																											
<table border="1"> <thead> <tr> <th rowspan="2">MATERIAL SYMBOL</th> <th rowspan="2">Elev. (ft)</th> <th rowspan="2">Sample Description</th> <th rowspan="2">Depth Scale</th> <th colspan="4">Sample Data</th> <th rowspan="2">Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)</th> </tr> <tr> <th>Number</th> <th>Type</th> <th>Recon. (in)</th> <th>Penetr. resist BL/6in</th> <th>PID Reading (ppm)</th> </tr> </thead> <tbody> <tr> <td rowspan="4"></td> <td></td> <td>Concrete</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>R1 [0-20"] Medium dense, orangeish brown medium SAND, some fine sand, trace silt, trace fine gravel (moist) [FILL]</td> <td>1</td> <td>1</td> <td>MC</td> <td>20/48</td> <td></td> <td></td> <td>08:35 Collect sample SB115_0-2</td> </tr> <tr> <td></td> <td>R2 [0-31"] Medium dense, orangeish brown medium SAND, some fine sand, trace silt, trace fine gravel (dry) [FILL]</td> <td>6</td> <td>2</td> <td>MC</td> <td>31/48</td> <td></td> <td></td> <td>08:45 Collect sample SB115_7-8</td> </tr> <tr> <td></td> <td>R3 [0-32"] Medium dense, gray over orangeish brown medium SAND, some fine sand, trace fine gravel, trace silt (dry) [FILL]</td> <td>10</td> <td>3</td> <td>MC</td> <td>32/48</td> <td></td> <td></td> <td></td> </tr> <tr> <td rowspan="4"></td> <td></td> <td>R4 [0-34"] Medium dense, gray over reddish brown medium SAND, trace fine gravel, trace fine sand, trace silt (dry) [SP]</td> <td>14</td> <td>4</td> <td>MC</td> <td>34/48</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>R5 [0-12"] Medium dense, gray over brown medium SAND, trace fine gravel, trace fine sand, trace silt</td> <td>16</td> <td>5</td> <td>MC</td> <td>12/12</td> <td></td> <td></td> <td>08:55 Collect sample SB115_15-16</td> </tr> <tr> <td></td> <td></td> <td>17</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Refusal at 17 feet.</td> </tr> <tr> <td></td> <td></td> <td>18</td> <td>6</td> <td>AUGER</td> <td></td> <td></td> <td></td> <td>Auger to 19 feet.</td> </tr> </tbody> </table>								MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	Number	Type	Recon. (in)	Penetr. resist BL/6in	PID Reading (ppm)			Concrete	0								R1 [0-20"] Medium dense, orangeish brown medium SAND, some fine sand, trace silt, trace fine gravel (moist) [FILL]	1	1	MC	20/48			08:35 Collect sample SB115_0-2		R2 [0-31"] Medium dense, orangeish brown medium SAND, some fine sand, trace silt, trace fine gravel (dry) [FILL]	6	2	MC	31/48			08:45 Collect sample SB115_7-8		R3 [0-32"] Medium dense, gray over orangeish brown medium SAND, some fine sand, trace fine gravel, trace silt (dry) [FILL]	10	3	MC	32/48						R4 [0-34"] Medium dense, gray over reddish brown medium SAND, trace fine gravel, trace fine sand, trace silt (dry) [SP]	14	4	MC	34/48					R5 [0-12"] Medium dense, gray over brown medium SAND, trace fine gravel, trace fine sand, trace silt	16	5	MC	12/12			08:55 Collect sample SB115_15-16			17						Refusal at 17 feet.			18	6	AUGER				Auger to 19 feet.
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data								Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)																																																																																			
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Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
		R7A [0-6"] Dark gray over gray rock fragments R7B [6-25"] Medium dense, dark gray over brown medium SAND, trace fine sand, trace fine gravel (dry) [SP] R8 [0-33"] Dense, gray over reddish brown fine SAND, some medium sand, trace fine gravel (dry) [SP] R9 [0-14"] Medium dense, dark gray over dark brown fine SAND, some medium sand, trace fine gravel, trace silt (dry) [SP] R10 [0-26"] Medium dense, dark gray over brown fine SAND, some medium SAND, trace fine gravel, trace silt (dry) [SP]	20						Clear to 20 feet. 11:00 Collect sample SB115_22-24 Sweet, petroleum-like odor. <



Project		805-825 Atlantic Avenue		Project No.		170384501			
Location		Brooklyn, NY		Elevation and Datum		NA			
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
			45						cuttings and patched with cement.
			46						
			47						
			48						
			49						
			50						
			51						
			52						
			53						
			54						
			55						
			56						
			57						
			58						
			59						
			60						
			61						
			62						
			63						
			64						
			65						
			66						
			67						
			68						
			69						
			70						

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental				Date Started 1/31/18		Date Finished 2/1/18	
Drilling Equipment Geoprobe 7822DT				Completion Depth 43 ft		Rock Depth NA	
Size and Type of Bit 2-inch direct push				Number of Samples 12		Undisturbed NA	
Casing Diameter (in) NA				Casing Depth (ft) NA		Core NA	
Casing Hammer NA		Weight (lbs) NA		Drop (in) NA		Water Level (ft.) First ∇ NA	
Sampler 4-foot acetate liner				Completion ∇ NA			
Sampler Hammer NA		Weight (lbs) NA		Drop (in) NA		24 HR. ∇ NA	
Drilling Foreman Tom Seickel & Daybi Pacheco				Field Engineer T. Morgan			

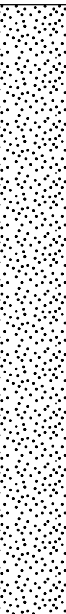
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recon. (in)	Penetr. resist BL/6in		
Concrete		R1 [0-11"] Medium dense, dark brown over orangeish brown medium SAND, some fine sand, trace clay, trace fine gravel (moist) [FILL]	0					0.0	10:30 Collect sample SB116_0-2
			1					0.0	
			2	1	MC	11/48			
			3						
			4						
			5						
			6	2	MC	21/48		0.0	
			7					0.0	
			8					0.0	
			9					0.0	
			10	3	MC	36/48		0.0	
			11					0.0	
		R2 [0-21"] Medium dense, dark gray over orangeish brown fine SAND, some medium sand, trace fine gravel, trace silt (dry) [FILL]	12	4	MC	5/12		0.0	10:40 Collect sample SB116_9-10
			13					0.0	
			14	5	AH			0.0	
			15					0.0	
			16	6	MC	16/36		75	
			17					240	
			18					385	
		R3A [0-30"] Dense, dark brown over orangeish brown fine SAND, trace fine gravel, trace medium sand (moist) [FILL]	19	7	AH			220	Refusal at 13 feet. Auger to 14 feet. MC 14-17 feet. 12:30 Collect sample SB116_15-17 Refusal at 17 feet. AH to 19 feet.
			20						
		R3B [30-36"] Medium dense, dark gray over gray medium SAND, some fine gravel, trace fine sand (moist) [SP]							02/01/18: AH 19-25 feet. Rock flecks coming out of
		R4 [0-5"] Medium dense, orangeish brown fine SAND, some medium sand, trace fine gravel, trace silt (moist) [SP]							
		R6 [0-16"] Medium dense, orangeish brown fine SAND, some medium sand, trace fine gravel, trace silt (moist) [SP]							

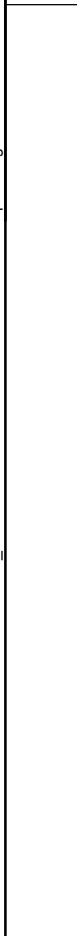
Project			805-825 Atlantic Avenue			Project No.			170384501		
Location			Brooklyn, NY			Elevation and Datum			NA		
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)			
			20							hole.	
			21								
			22								
			23								
			24	7	AH						
			25							Refusal at 25 feet.	
			26								
			27							AH to 28 feet.	
			28							Petroleum-like odor.	
		R8A [0-10"] Medium dense, brown fine silty SAND, trace medium sand, trace fine gravel (moist) [SM]	29								
		R8B [10-14"] Medium dense, dark gray over tan medium SAND, trace fine sand, trace fine gravel (moist) [SP]	30	8	MC	26/48			1450		
		R8C [14-26"] Medium dense, brown fine silty SAND, trace medium sand, trace fine gravel (moist) [SM]	31						1400	11:15 Collect sample SB116_30-31	
			32						1200		
			33						865		
			34								
		R9A [0-20"] Medium dense, reddish brown fine silty SAND, trace medium sand, trace fine gravel (moist) [SM]	35	9	MC	36/48			1750	Sweet odor and slight sheen on exterior of soil in MC.	
			36						6050	11:15 Collect sample SB116_33-34	
			37						6500		
			38						6200		
		R9B [20-36"] Medium dnese, reddish brown over brown medium SAND, some fine sand, trace fine gravel (moist) [SP]	39						3050		
			40						3245		
			41						2500		
			42	10	MC	11/24			2650	11:35 Collect sample SB116_37-38	
		R10 [0-11"] Medium dense, reddish brown over brown medium SAND, trace fine gravel, trace fine sand (moist) [SP]	43						2600	Refusal at 38 feet.	
		R11 No recovery	44	11	AH					AH 38-40 feet.	
			45								
				12	MC	14/36					
		R12A [0-6"] Loose, gray over brown medium SAND, some fine gravel, trace fine SAND [SP]								MC 40-43 feet and reach clean material above refusal.	
		R12B [6-14"] Loose, blue over gray fine gravel (dry) [GP]								14:20 Collect sample SB116_42-43	

Project 805-825 Atlantic Avenue			Project No. 170384501		
Location Brooklyn, NY			Elevation and Datum NA		
Drilling Company AARCO Environmental			Date Started 1/29/18		Date Finished 2/8/18
Drilling Equipment Geoprobe 8140 LC			Completion Depth 80 ft		Rock Depth NA
Size and Type of Bit 5-inch direct push			Number of Samples	Disturbed 12	Undisturbed NA
Casing Diameter (in) NA			Casing Depth (ft) NA	Water Level (ft.) First ∇ 68	Completion ∇ NA
Casing Hammer NA			Weight (lbs) NA	Drop (in) NA	Drilling Foreman Tom Seickel
Sampler 5-foot polyethylene bag			Field Engineer T. Morgan		
Sampler Hammer NA			Weight (lbs) NA	Drop (in) NA	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recon. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
		Concrete	0						09:00 Begin cutting concrete and hand clearing.
		R1 Loose orangeish brown medium SAND, some fine sand, trace fine gravel, with cobbles and boulders (dry) [FILL]	1	1	HA			0.0	09:55 Begin drilling, collect SB117_0-2.
			2					0.0	
			3					0.0	
			4					0.0	
			5					0.0	
		R2A [0-12"] Semi-consolidated light gray boulder, trace brown clay, trace silt, trace fine sand (moist) [FILL]	6						
			7	2	S	44/60			
		R2B [12-44"] Semi-consolidated orangeish brown fine SAND, some silt, trace fine gravel (dry) [FILL]	8						
			9						
		R3A [0-34"] Unconsolidated, tan over reddish brown medium silty SAND, trace fine sand, trace fine gravel, trace silt, trace coarse gravel, with cobbles (dry) [SP]	10						Collect SB117_9-10.
			11					3.4	
			12					5	
			13	3	S	44/60		8	
			14					14	
			15					22	
		R3B [34-44"] Unconsolidated gray over reddish brown medium silty SAND, trace fine gravel, trace coarse gravel, trace fine sand, with cobbles (dry) [SP]	16					55	No petroleum-like odor, some black staining. Collect SB117_13-15.
		R4A [0-12"] Semi-consolidated, gray over brown fine silty SAND, some medium sand, trace clay (moist) [SM]	17					200	
		R4B [12-27"] Semi-consolidated, light gray boulder fragments (dry)	18	4	S	55/60		50	Collect SB117_15-16, DUP03_012918
			19					640	
		R4C [27-55"] Unconsolidated dark brown fine SAND, some silt, trace medium sand, trace fine gravel, trace coarse gravel (dry) [SM]	20					250	Petroleum-like odor, gray petroleum-like staining
								220	
								2200	Collect SB117_18-20

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Project			805-825 Atlantic Avenue			Project No.			170384501		
Location			Brooklyn, NY			Elevation and Datum			NA		
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
		R5A [0-20"] Semi-consolidated, dark gray over orangeish brown medium SAND, some fine sand, trace fine gravel, trace coarse gravel, trace silt (dry) [SP]	20	5	S	57/60			250	Sweet-smelling odor	
			21						310		
			22						305		
			23						180		
			24						600		
			25						645		
			26						680		
			27						>15000		
			28						180		
			29								
		R5B [20-32"] Semi-consolidated, gray boulder fragments (dry)	30	6	S	55/60			250	02/08/18 Resume with sonic rig at SB117 08:30 Start drilling	
			31						860		
			32						860		
			33						970		
			34						1215		
			35						2400		
			36						3050		
			37						2800		
			38						800		
			39						800		
		R5C [32-57"] Unconsolidated, reddish gray over light brown fine SAND, some medium sand, trace silt, trace fine gravel, trace coarse gravel (dry) [SP]	40	7	S	55/60			1045	Sweet-like odor	
41	1200										
42	230										
43	185										
44	160										
R6 [0-55"] Semi-consolidated, brown fine SAND, trace silt, trace medium sand, trace fine gravel, trace coarse gravel with cobbles [SP]	45	8	S	50/60			29.5	Collect SB117-39-40 MC to 40 feet.			
	46						23.0				
	47						18				
	48						14				
	49						5.4				
	50						3.2				
R7A [0-25"] Unconsolidated, brown fine SAND, some silt, trace medium sand, trace fine gravel (wet) [SM]	51	9	AH, S				1.4				
	52						0.8				
	53						0.0				
	54										
	55										
R7B [25-50"] Semi-consolidated, dark gray over brown medium SAND, trace fine sand, trace fine gravel, trace coarse gravel (dry) [SP]	56										
	57										
	58										
	59										
	60										
R8 [0-50"] Unconsolidated brown medium SAND, some fine gravel, trace fine sand, trace coarse sand, trace coarse gravel, with cobbles (dry) [SW]	61										
	62										
	63										
	64										
	65										
R9 No recovery	66										
	67										
	68										
	69										
	70										

Project			805-825 Atlantic Avenue			Project No.			170384501		
Location			Brooklyn, NY			Elevation and Datum			NA		
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)		
				Number	Type	Recov. (in)	Penetr. resist BLU/ft	PID Reading (ppm)			
			45	9	AH, S				AH 40-60 feet.		
			46								
			47								
			48								
			49								
			50								
			51								
			52								
			53								
			54								
			55								
			56								
			57								
			58								
			59								
			60	10	S	54/60					
			61								
			62								
			63								
			64								
65	11	S	54/60								
66											
67											
68											
69											
70											

Project 805-825 Atlantic Avenue		Project No. 170384501							
Location Brooklyn, NY		Elevation and Datum NA							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
		No recovery	70	12	s				Push down to 80 feet to set MW117
			71						
			72						
			73						
			74						
			75						
			76						
			77						
			78						
			79						
			80						
			81						
			82						
			83						
			84						
			85						
			86						
			87						
			88						
			89						
			90						
			91						
			92						
			93						
			94						
			95						
									End of boring at 80 feet below grade surface. Boring converted into monitoring well MW117.

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA			
Drilling Company AARCO Environmental				Date Started 2/9/18		Date Finished 2/9/18	
Drilling Equipment Geoprobe 8140 LC				Completion Depth 80 ft		Rock Depth NA	
Size and Type of Bit 5-inch direct push				Number of Samples 10		Disturbed NA	
Casing Diameter (in) NA				Casing Depth (ft) NA		Core NA	
Casing Hammer NA				Weight (lbs) NA		Drop (in) NA	
Sampler 5-foot polyethylene bag				Drilling Foreman Tom Seickel			
Sampler Hammer NA				Field Engineer M. Liu			
Weight (lbs) NA				Drop (in) NA			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/ft	PID Reading (ppm)	
		R1A [0-12"] Concrete	0						
		R1B [12-60"] Brown fine SAND, trace silt, trace fine gravel with brick, concrete (dry) [FILL]	1	1	Sonic	60/60		0.8-4.4	07:45 Collect sample SB-188_0-2
			2						
			3						
			4						
		R2A [0-28"] Brown fine SAND, trace silt, trace fine gravel, with brick, concrete (dry) [FILL]	5					180	
			6					230	
			7					350	
			8					380	
		R2B [28-60"] Brown silty fine SAND with concrete (dry) [FILL]	9	2	Sonic	60/60		500	Petro-like odors from 6-7. 08:00 Collect sample SB-118_6-7
			10					300	
			11					200	
			12					80	
			13					70	
			14					80	
		R3 [0-60"] Brown fine SAND, trace coarse sand, trace fine gravel, trace silt with brick, concrete (dry) [FILL]	15	3	Sonic	60/60		15000	08:15 Collect sample SB-118_10-12
			16					15000	
			17					15000	
		R4 Brown fine SAND, some silt, trace fine gravel, with brick, concrete (dry) [FILL]	18	4	Sonic			15000	Heavy petro-like odors from 10-15 feet.
			19					15000	
		20					15000		
							3000-6500	09:00 Collect SB-118_15-17 and EBMS04_020918 and EBMSD04_020918. Sample too hot to be collected in plastic liner; collected into bucket. Heavy petro-like odors.	

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Project	805-825 Atlantic Avenue	Project No.	170384501
Location	Brooklyn, NY	Elevation and Datum	NA

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
		R5A [0-16"] Rock	20	5	Sonic	36/60			
			21						
			22						
			23						
		R5B [16-36"] Brown fine SAND, trace fine gravel, trace silt, with brick (wet) [FILL]	24	6	Sonic	60/60		15000	Heavy petro-like odors from 22-25 feet. 10:10 Collect SB-118_23-25. Slight sheen in GW.
			25					15000	
			26					15000	
			27					15000	
		R6A [0-24"] Gray fine sand, some silt, trace fine gravel, trace coarse gravel (wet) [SP]	28					15000	Heavy petro-like odors from 25-30 feet. 10:30 Collect SB-118_28-30
			29					15000	
			30					15000	
			31					15000	
		R6B [24-60"] Brown fine SAND, some silt, trace fine gravel, trace coarse gravel with brick (wet) [SP]	32	7	Sonic	60/60		15000	Heavy petro-like odors from 30-35 feet.
			33					15000	
			34					15000	
			35					15000	
		R7 [0-60"] Light brown fine SAND, some fine gravel, trace coarse gravel, trace silt (wet) [SP]	36	8	Sonic	60/60		15000	Heavy petro-like odors from 35-37 feet. Light petro-like odors from 37-40 feet.
			37					15000	
			38					900	
			39					300	
		R8 [0-60"] Brown to gray fine SAND, some fine gravel, trace coarse gravel, trace silt (dry) [SP]	40	9	Sonic	60/60		200	No petro-like odors.
			41					190	
			42					100	
			43					100	
		R9 [0-60"] Brown to gray fine SAND, some fine gravel, trace coarse gravel, trace silt (dry) [SP]	44					100	11:20 Collect SB-118_43-45
			45					100	

Project 805-825 Atlantic Avenue		Project No. 170384501	
Location Brooklyn, NY		Elevation and Datum NA	

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
			45						Drill straight to 65 feet to locate water table.
			46						
			47						
			48						
			49						
			50						
			51						
			52						
			53						
			54						
			55						
			56						
			57						
			58						
			59						
			60						
			61						
			62						
			63						
			R10A [0-36"] Brown fine SAND, some fine gravel, trace silt, trace coarse sand (dry) [SP]	65					
			66					10	
			67					10	
			68					10	
			69					10	
			70					10	

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Project 805-825 Atlantic Avenue		Project No. 170384501							
Location Brooklyn, NY		Elevation and Datum NA							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	
			70						Drill to 80 feet.
			71						
			72						
			73						
			74						
			75						
			76						
			77						
			78						
			79						
			80						End of boring at 80 feet below grade surface. Boring converted into monitoring well MW118.
			81						
			82						
			83						
			84						
			85						
			86						
			87						
			88						
			89						
			90						
			91						
			92						
			93						
			94						
			95						

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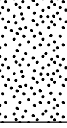


Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
	+46.0	R5 (0-48) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	20	5	BAG	48/60	-	2664.7 2553.0 2841.0 2928.8 2698.0 2358.7 2295.0 2287.5 2201.1	Petroleum-like odor from 21-25'
	21								
	22								
	23								
	24								
	+41.0	R6 (0-36) Gray boulder	25	6	BAG	36/60	-	0.0 0.0 0.0 0.0 0.0 0.0 0.0	
	26								
	27								
	28								
	29								
	+36.0	R7 (0-12) Brown coarse SAND, trace fine gravel, trace cobble	30	7	BAG	12/60	-	7.1 7.0 6.8	
	31								
	32								
	33								
	34								
	+31.0	R8 No recovery	35	8	BAG	0/60	-		
	36								
	37								
	38								
	39								
	+26.0	R9 No recovery	40	9	BAG	0/24	-		End of boring at 42'. Completed as soil vapor extraction well SVE-1, screened from 22-42'.
	41								
	42								
	43								
	44								
	+24.0		45						

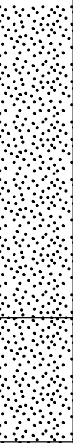
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Log of Boring SVE-2 Sheet 1 of 2

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 7/20/20		Date Finished 7/21/20	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 42 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 9		Undisturbed 0	
Casing Diameter (in) 4"		Casing Depth (ft) 5'		Water Level (ft.) First ∇ N/A		Completion ∇ 24 HR. ∇	
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman Daybi Pacheco	
Sampler 5' steel tube and bags				Field Engineer Tomas Monti, Andrew Nesci			
Sampler Hammer N/A		Weight (lbs) N/A		Drop (in) N/A			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BLU/in	PID Reading (ppm)	
	+66.0	R1 (0-24) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	0					0.0	Hard drilling, boulder encountered at 5'.
			1					0.0	
			2					0.0	
			3	1	BAG	24/60	.	0.0	
		4							
		5							
		6							
		7							
		8	2	BAG	0/60	.			
		9							
		10							
		11							
		12							
		13	3	BAG	0/60	.			
		14							
		15							
		16							
		17	4	BAG	0/60	.			
		18							
		19							
		20							



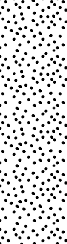
Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
	+46.0	R5 No recovery	20	5	BAG	0/60	-		
			21						
			22						
			23						
			24						
	+41.0	R6 No recovery	25	6	BAG	0/60	-		
			26						
			27						
			28						
			29						
	+36.0	R7 (0-54) Reddish brown fine SAND, some coarse gravel, trace fine gravel (moist)	30	7	BAG	54/60	-		
			31						
			32						
			33						
			34						
	+31.0	R8 (0-54) Reddish brown fine SAND, some coarse gravel, trace fine gravel (moist)	35	8	BAG	54/60	-		
			36						
			37						
			38						
			39						
+26.0	R9 (0-24) Reddish brown fine SAND, some coarse gravel, trace fine gravel (moist)	40	9	BAG	24/24	-			
		41							
		42							
		43							
		44							
	+24.0		45						
								End of boring at 42'. Completed as soil vapor extraction well SVE-2, screened from 22-42'.	

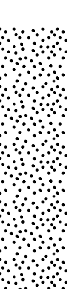
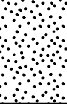
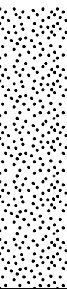
End of boring at 42'.
Completed as soil vapor
extraction well SVE-2,
screened from 22-42'.

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Log of Boring SVE-3 Sheet 1 of 2

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 7/21/20		Date Finished 7/23/20	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 42 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 9		Undisturbed 0	
Casing Diameter (in) 4"		Casing Depth (ft) 5'		Water Level (ft.) First ∇ N/A		Completion ∇ 24 HR. ∇	
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman Daybi Pacheco	
Sampler 5' steel tube and bags				Field Engineer Tomas Monti, Andrew Nesci			
Sampler Hammer N/A		Weight (lbs) N/A		Drop (in) N/A			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist. BLU/in	PID Reading (ppm)		
	+66.0	R1 (0-48) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	0	1	BAG	48/60	-	0.0	Hard drilling, boulder encountered at 8'.	
	1		0.0							
	2		0.0							
	3		0.0							
	+62.0	R2a (0-12) Gray boulder	4	2	BAG	24/60	-	0.0		
	5		0.0							
	+57.0	R2b (12-24) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	6	3	BAG	24/60	-	0.0		
	7		0.0							
	+56.0	R3 (0-24) Gray boulder	8	4	BAG	0/60	-	0.0		Hard drilling, boulder encountered at 13'.
	9		0.0							
	10		0.0							
	11		0.0							
	+51.0	R4 No recovery	12					0.0		
	13		0.0							
	14		0.0							
	15		0.0							
	+46.0		16					0.0		
	17									
	18									
	19									
	20									

Project		Project No.												
805-825 Atlantic Avenue		170384501												
Location		Elevation and Datum												
Brooklyn, NY		NA 66												
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)					
				Number	Type	Recov. (in)	Penetr. resist. BLU/in	PID Reading (ppm)						
	+46.0	R5 (0-54) Brown medium SAND, some fine sand, trace fine gravel (moist)	20	5	BAG	54/60	-	0.0	Hard drilling, boulder encountered at 25'.					
	21		0.0											
	22		0.0											
	23		0.0											
	24		0.0											
	25		0.0											
	+41.0	R6 No recovery	25	6	BAG	0/60	-	0.0						
	26													
	27													
	28													
	+36.0	R7a (0-12) Gray boulder	30	7	BAG	48/60	-	0.0						
	31		0.0											
			+34.0					R7b (12-24) Gray coarse GRAVEL, some coarse sand (moist)	32	8	BAG	54/60	-	0.0
			33						0.0					
	+33.0	R7c (24-48) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	33	9	BAG	0/24	-	0.0						
	34		0.0											
	35		0.0											
	36		0.0											
	37		0.0											
	38		0.0											
	+31.0	R8 (0-54) Brown fine SAND, some fine gravel, trace medium sand, trace silt (moist)	35	9	BAG	0/24	-	0.0						
	36		0.0											
	37		0.0											
	38		0.0											
	39		0.0											
	40		0.0											
	+26.0	R9 No recovery	40	9	BAG	0/24	-	0.0						
	41													
			+24.0						42	9	BAG	0/24	-	End of boring at 42'. Completed as soil vapor extraction well SVE-3, screened from 22-42'.
			43											
			44											
			45											

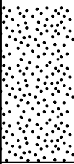
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Log of Boring SVE-4 Sheet 1 of 2

Project 805-825 Atlantic Avenue				Project No. 170384501																																																																																																																														
Location Brooklyn, NY				Elevation and Datum NA 66																																																																																																																														
Drilling Company AARCO				Date Started 7/18/20		Date Finished 7/20/20																																																																																																																												
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 42 ft		Rock Depth N/A																																																																																																																												
Size and Type of Bit 4"				Number of Samples 9		Disturbed 0																																																																																																																												
Casing Diameter (in) 4"				Casing Depth (ft) 5'		Core 0																																																																																																																												
Casing Hammer N/A				Weight (lbs) N/A		Drop (in) N/A																																																																																																																												
Sampler 5' steel tube and bags				Drilling Foreman Daybi Pacheco																																																																																																																														
Sampler Hammer N/A				Field Engineer Tomas Monti, Andrew Nesci																																																																																																																														
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Log of Boring SVE-4 Sheet 2 of 2

Project			Project No.						
805-825 Atlantic Avenue			170384501						
Location			Elevation and Datum						
Brooklyn, NY			NA 66						
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	
	+46.0	R5 (0-30) Brown fine SAND, some fine gravel, trace cobble, trace coarse sand (moist)	20	5	BAG	22.5/60	-	1289.0 1491.0 1636.0 1192.0 1920.0 2604.0	Petroleum-like odor from 21-25'
			21						
			22						
			23						
			24						
	+41.0	R6 No recovery	25	6	BAG	0/60	-		
			26						
			27						
			28						
			29						
	+36.0	R7 No recovery	30	7	BAG	0/60	-		
			31						
			32						
			33						
			34						
	+31.0	R8 No recovery	35	8	BAG	0/60	-		Hard drilling, boulder encountered at 35'.
			36						
			37						
			38						
			39						
	+26.0	R9 No recovery	40	9	BAG	0/24	-		End of boring at 42'. Completed as soil vapor extraction well SVE-4, screened from 22-42'.
			41						
			42						
			43						
			44						
	+24.0		45						

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Log of Boring SVE-5 Sheet 1 of 2

Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 7/16/20		Date Finished 7/17/20	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 42 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 9		Disturbed 0	
Casing Diameter (in) 4"		Casing Depth (ft) 5'		Water Level (ft.) First ∇ N/A		Completion ∇ 24 HR. ∇	
Casing Hammer N/A		Weight (lbs) N/A		Drop (in) N/A		Drilling Foreman Daybi Pacheco	
Sampler 5' steel tube and bags				Field Engineer Tomas Monti, Andrew Nesci			
Sampler Hammer N/A		Weight (lbs) N/A		Drop (in) N/A			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	PID Reading (ppm)	
	+66.0	R1 (0-48) Grayish brown fine SAND, some fine gravel, trace cobble (moist)	0	1	BAG	48/60	-	0.0	
			1						
			2						
			3						
	+62.0	R2 (0-60) Gray boulder	4	2	BAG	60/60	-	0.0	
			5						
			6						
			7						
	+56.0	R3 (0-60) Gray boulder	8	3	BAG	60/60	-	0.0	
			9						
			10						
			11						
	+51.0	R4a (0-36) Gray boulder	12	4	BAG	48/60	-	0.0	
			13						
			14						
			15						
	+47.0	R4b (36-48) Reddish brown coarse GRAVEL, trace cobble, trace medium sand (moist)	16					0.0	
			17						
			18						
			19						
	+46.0		20						

End of boring at 42'.
Completed as soil vapor
extraction well SVE-5,
screened from 22-42'.



Project 805-825 Atlantic Avenue				Project No. 170384501			
Location Brooklyn, NY				Elevation and Datum NA 66			
Drilling Company AARCO				Date Started 7/29/20		Date Finished 7/29/20	
Drilling Equipment Geoprobe 8140 LC Sonic				Completion Depth 42 ft		Rock Depth N/A	
Size and Type of Bit 4"				Number of Samples 9		Disturbed 0	
Casing Diameter (in) 4"				Casing Depth (ft) 5'		Core 0	
Casing Hammer N/A				Weight (lbs) N/A		Drop (in) N/A	
Sampler 5' steel tube and bags				Water Level (ft.) First ∇ N/A Completion ∇ 24 HR. ∇			
Sampler Hammer N/A				Weight (lbs) N/A			
Drop (in) N/A				Drilling Foreman Daybi Pacheco			
				Field Engineer Tomas Monti, Andrew Nesci			

MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data					Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
				Number	Type	Recov. (in)	Penetr. resist	PID Reading (ppm)	
	+66.0	R1 (0-60) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	0	1	BAG	60/60	-	0.1	Petroleum-like odor from 0.5-5'
			1					0.3	
			2					0.3	
			3					3.0	
			4					4.3	
	+61.0	R2 (0-60) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	5	2	BAG	60/60	-	7.1	Petroleum-like odor from 5-10'
			6					7.2	
			7					8.9	
			8					1182.4	
			9					1197.9	
	+56.0	R3 (0-56) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	10	3	BAG	50/60	-	156.4	Petroleum-like odor from 10.5-15'
			11					8109.3	
			12					5067.9	
			13					3005.6	
			14					7185.6	
	+51.0	R4 (0-24) Reddish brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	15	4	BAG	24/60	-	10690	Petroleum-like odor from 18-20'
			16					7668.4	
			17					6167.8	
			18					1285.0	
			19					957.1	
	+46.0	R4 (0-24) Reddish brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	20	4	BAG	24/60	-	11298	Petroleum-like odor from 18-20'
			21					4434.1	
			22					3675.9	
			23					2979.8	

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Log of Boring SVE-6 Sheet 2 of 2

Project		Project No.							
805-825 Atlantic Avenue		170384501							
Location		Elevation and Datum							
Brooklyn, NY		NA 66							
MATERIAL SYMBOL	Elev. (ft)	Sample Description	Depth Scale	Sample Data				Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)	
				Number	Type	Recov. (in)	Penetr. resist. BL/6in	PID Reading (ppm)	
	+46.0		20	5	BAG	42/60	-	0.0	Hard drilling, boulder encountered at 21.5'. Petroleum-like odor from 22.5-25'
		R5a (0-12) Gray boulder	21					0.0	
			22					13.4	
	+43.5	R5b (12-42) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	23					10.1	
			24					7.1	
	+41.0		25	6	BAG	48/60	-	7.1	Hard drilling, boulder encountered at 31'.
		R6a (0-12) Gray coarse GRAVEL, some cobble (moist)	26					7.0	
			27					4.2	
	+39.0	R6b (12-48) Brown coarse SAND, trace fine gravel, trace cobble	28					0.0	
			29					0.3	
	+36.0		30	7	BAG	30/60	-	0.7	
		R7 (0-30) Brown fine SAND, some fine gravel, trace medium sand, trace cobble (moist)	31					1.2	
			32					1.8	
			33					2.0	
			34					0.0	
	+31.0		35	8	BAG	0/60	-	0.0	End of boring at 42'. Completed as soil vapor extraction well SVE-6, screened from 22-42'.
		R8 No recovery	36					0.0	
			37					0.0	
			38					0.0	
			39					0.0	
	+26.0		40	9	BAG	0/24	-	0.0	
		R9 No recovery	41					0.0	
			42					0.0	
	+24.0		43					0.0	
			44					0.0	
			45						