### **APPENDIX A**

**Geophysical Survey** 

LANGAN

HAGER-RICHTER GEOSCIENCE, INC.

### GEOPHYSICAL SURVEY 130 SAINT FELIX STREET BROOKLYN, NEW YORK

Prepared for:

Langan 300 Kimble Drive, 4<sup>th</sup> Floor Parsippany, New Jersey 07054-2172

Prepared by:

Hager-Richter Geoscience, Inc. dba HR Geological Services in New York 846 Main Street Fords, New Jersey 08863

File 20JCC08 April 2021

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# HAGER-RICHTER GEOSCIENCE, INC.

GEOPHYSICS FOR THE ENGINEERING COMMUNITY SALEM, NEW HAMPSHIRE Tel: 603.893.9944 FORDS, NEW JERSEY Tel: 732.661.0555

April 23, 2021 File 20JCC08

Brandon Reiner Senior Staff Engineer Langan 300 Kimble Drive, 4<sup>th</sup> Floor Parsippany, New Jersey 07054-2172

Off: (973) 560-4491 Cell: (201) 214-6772 Email: breiner@langan.com

RE: Geophysical Survey 130 Saint Felix Street Brooklyn, New York

Dear Mr. Reiner:

In this report, we summarize the results of a geophysical survey conducted on April 19, 2021 by Hager-Richter Geoscience, Inc., dba HR Geological Services in NY (HRGS), at the above referenced site for Langan. The scope of the project and areas of interest (AOIs) were specified by Langan.

### **INTRODUCTION**

The site is an asphalt paved parking lot located at 130 Saint Felix Street in Brooklyn, New York. Figure 1 shows the general location of the site. Langan is planning to install ten (10) borings and seven (7) test pits at the site. Prior to drilling, Langan requested a geophysical survey to determine the locations of subsurface utilities in the accessible portions of the specified AOIs. Figure 2 shows the approximate locations of the proposed borings and test pits.

Individual AOIs measured approximately 20-ft by 20-ft and are centered at the locations of proposed investigations. Proposed borings and test pits that were located close together were grouped into larger AOIs. Potential utilities and other features detected in the vicinity of proposed borings were marked on the ground at the time of the survey.

#### **OBJECTIVES**

The objective of the geophysical survey was to detect and, if detected, to locate utilities and other subsurface obstructions in the accessible portions of approximately 20 ft by 20 ft areas centered at the locations of ten (10) proposed borings and seven (7) test pits.

#### THE SURVEY

Alexis Martinez, Justin Covert, and Amanda Fabian, P.G. of HRGS conducted the field operations on April 19, 2021. The project was coordinated with Mr. Brandon Reiner of Langan. Ms. Esther Arthur, also of Langan, was present for the survey and specified the proposed boring and test pit locations.

The geophysical survey was conducted using two (2) complementary geophysical methods: ground penetrating radar (GPR) and precision utility location (PUL).

GPR data were acquired in two mutually perpendicular directions and spaced no more than 5 feet apart across the accessible portions of the AOIs. The GPR method is useful for detecting both metallic and non-metallic subsurface objects.

The PUL system was used for tracking utilities in the AOIs by connecting the transmitter to surface features such as valves and hydrants and by scanning the AOI for the presence of live electric lines. When possible, manholes and catch basins present on site were opened to observe the orientation of subsurface utilities.

The proposed locations of the boreholes and test pits were marked in the field by Langan at the beginning of the survey, and their approximate locations are shown on Figure 2. Figure 3 shows sketches of the locations of the GPR traverses and the integrated interpretation of the geophysical data. Utilities and other features detected in the vicinity of proposed borings and test pits were marked on the ground at the time of the survey. Langan was notified where proposed boring locations conflicted with detected utilities and/or features.

### EQUIPMENT AND PROCEDURES

*GPR*. The GPR survey was conducted using a Geophysical Survey Systems, Inc. UtilityScan HS system with a 350 MHz Hyper Stacking digital antenna and a 76 ns time window. The system includes a survey wheel that triggers the recording of the data at fixed intervals, thereby ensuring the accuracy of the locations of features detected along the survey lines.

GPR uses a high-frequency electromagnetic pulse (referred to herein as "radar signal") transmitted from a radar antenna to probe the subsurface. The transmitted radar signals are reflected from subsurface interfaces of materials with contrasting electrical properties. Travel times of the radar signal can be converted to approximate depth below the surface by correlation with targets of known depths and by a curve matching routine. We monitor the acquisition of GPR data in the field and record the GPR data digitally for subsequent processing. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

Data from the GPR survey were processed using RADAN 7.4 GPR processing software from Geophysical Survey Systems, Inc. We reviewed profile images of the GPR data. Interpretation of the records is based on the nature and intensity of the reflected signals and on the resulting patterns.

*PUL.* The PUL survey was conducted using a Radiodetection RD 7000 series PUL instrument. The RD 7000 series consists of separate transmitter and receiver. The system can be used in "passive" and "active" modes to locate buried pipes by detecting electromagnetic signals carried by the pipes. In the "passive" mode, only the receiver unit is used to detect signals carried by the pipe from nearby power lines, live signals transmitted along underground power cables, or very low frequency radio signals resulting from long wave radio transmissions that flow along buried conductors. In the "active" mode of operation, the transmitter is used to induce a signal on a target pipe, and the receiver is used to trace the signal along the length of the pipe. Our system uses a 10W transmitter.

### LIMITATIONS OF THE METHOD

HRGS MAKES NO GUARANTEE THAT ALL TARGETS WERE DETECTED IN THIS SURVEY. HRGS IS NOT RESPONSIBLE FOR DETECTING TARGETS THAT CANNOT BE DETECTED BY THE METHODS EMPLOYED OR BECAUSE OF SITE CONDITIONS. GPR SIGNAL PENETRATION MIGHT NOT BE SUFFICIENT TO DETECT ALL TARGETS.

*Field mark-outs.* Utilities and other features detected by the GPR and PUL methods at the time of the survey are marked in the field. Adverse weather and site conditions (rain, uneven surfaces, high traffic, etc.) can hamper in-field interpretation. Field markings made on wet pavement, sand, or gravel surfaces, or in active construction zones may not last. HRGS is not responsible for maintaining field markings after leaving the work area.

*GPR*. There are limitations of the GPR technique as used to detect and/or locate targets such as those of the objectives of this survey: (1) surface conditions, (2) electrical conductivity of the ground, (3) contrast of the electrical properties of the target and the surrounding soil, and (4) spacing of the traverses. Of these restrictions, only the last is controllable by us.

The condition of the ground surface can affect the quality of the GPR data and the depth of penetration of the GPR signal. Sites covered with snow piles, high grass, bushes, landscape structures, debris, obstacles, soil mounds, etc. limit the survey access and the coupling of the GPR antenna with the ground. In many cases, the GPR signal will not penetrate below concrete pavement, especially inside buildings, and a target may not be detectable. The GPR method also commonly does not provide useful data under canopies found at some facilities. GPR surveys inside buildings may be severely constrained by space limitations and interference from above-grade structures.

The electrical conductivity of the ground determines the attenuation of the GPR signals and thereby limits the maximum depth of exploration. For example, the GPR signal does not penetrate clay-rich soils and targets buried in clay might not be detected.

A definite contrast in the electrical conductivities of the surrounding ground and the target material is required to obtain a reflection of the GPR signal. If the contrast is too small, possibly due to construction details or deeply corroded metal in the target, then the reflection may be too

weak to recognize, and the target can be missed. In many cases, plastic, clay, asbestos concrete (transite), brick-lined, stone-lined, and other non-metallic utilities cannot be detected.

Spacing of the traverses is limited by access at many sites, but where flexibility of traverse spacing is possible, the spacing is adjusted to the size of the target. The GPR operator controls the spacing between lines, and the design of the survey is based on the dimensions of the smallest feature of interest. Targets with dimensions smaller than the spacing between GPR survey lines can be missed.

*PUL*. The PUL equipment cannot detect non-metallic utilities, such as pipes constructed of vitrified clay, transite, plastic, PVC, fiberglass, and unreinforced concrete, when used in passive mode alone. Such pipes can be detected if a wire tracer is installed with access to such tracer for transmission of a signal or where access (such as floor drains and clean-outs) permits insertion of a device on which a signal can be transmitted.

In some, but not all, cases, the subsurface utility designation equipment cannot detect metal utilities reliably under reinforced concrete because the signal couples onto the metal reinforcing in the concrete. Similarly, the method commonly cannot be used adjacent to grounded metal structures such as chain link fences and metal guardrails.

In congested areas, where several utilities are bundled or located within a short distance, the signal transmitted on one utility can couple onto adjacent utilities, and the accuracy of the location indicated by the instrument decreases.

### RESULTS

The geophysical survey was conducted using the GPR and PUL methods across the accessible portions of the specified AOIs. The proposed locations of the boreholes and test pits were marked in the field by Langan at the beginning of the survey. Utilities and other features detected in the vicinity of proposed borings and test pits were marked on the ground at the time of the survey. Figure 2 shows the approximate locations of the proposed borings and test pits and Figure 3 shows sketches of the locations of the GPR traverses and an integrated interpretation of the geophysical data.

*GPR*. Apparent GPR signal penetration was variable, with reflections received for about 10-25 nanoseconds. Based upon velocity matching calibrations made for the area of interest, the GPR signal penetration is estimated to have been about 1-3 feet.

The GPR records exhibit linear alignments of reflections interpreted as possible utilities or segments of utilities. Where they are unidentified, they are shown as bold black dashed lines. Several utilities were noted within GPR records and were marked in field accordingly. Additionally, GPR reflections consistent with those expected for small unidentified buried objects were also observed, and their locations are shown in Figure 3 with blue "x".

Whether USTs, utilities, or other features occur at a depth greater than the effective depth of penetration of the GPR signal ( $\sim$ 1 to 3 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.

*PUL*. The PUL transmitter was attached to conduits located in or near the AOIs, such as light poles, gas valves, fire hydrants, etc. The PUL survey was also conducted in "passive" mode to detect signals carried by utilities from nearby power lines. Where possible, manholes and catch basins were opened to observe visual alignment of sewer and drain utilities. Utilities detected with the PUL were marked in field at the time of the survey.

#### CONCLUSIONS

Based upon the geophysical survey performed by HRGS at 130 Saint Felix Street in Brooklyn, New York, we conclude that:

- Possible utilities, and small unidentified buried objects were detected and located in several AOIs surrounding proposed boring locations and test pits.
- Whether USTs, utilities, or other features occur at a depth greater than the effective depth of penetration of the GPR signal (~1 to 3 feet) or in areas inaccessible to the geophysical survey cannot be determined from the geophysical data.

### LIMITATIONS ON USE OF THE REPORT

This letter report was prepared for the exclusive use of Langan and its client (collectively, the Client). No other party shall be entitled to rely on this Report, or any information, documents, records, data, interpretations, advice or opinions given to the Client by Hager-Richter Geoscience, Inc. (HRGS) in the performance of its work. The Report relates solely to the specific project for which HRGS has been retained and shall not be used or relied upon by the Client or any third party for any variation or extension of this project, any other project or any other purpose without the express written permission of HRGS. Any unpermitted use by the Client or any third party shall be at the Client's or such third party's own risk and without any liability to HRGS.

HRGS has used reasonable care, skill, competence, and judgment in the performance of its services for this project consistent with professional standards for those providing similar services at the same time, in the same locale, and under like circumstances. Unless otherwise stated, the work performed by HRGS should be understood to be exploratory and interpretational in character and any results, findings or recommendations contained in this Report or resulting from the work proposed may include decisions which are judgmental in nature and not necessarily based solely on pure science or engineering. It should be noted that our conclusions might be modified if subsurface conditions were better delineated with additional subsurface exploration including, but not limited to, test pits, soil borings with collection of soil and water samples, and laboratory testing.

Geophysical Survey 130 Saint Felix Street Brooklyn, New York File 20JCC08 Page 6

Except as expressly provided in this limitations section, HRGS makes no other representation or warranty of any kind whatsoever, oral or written, expressed or implied; and all implied warranties of merchantability and fitness for a particular purpose, are hereby disclaimed.

If you have any questions or comments on this letter report, please contact us at your convenience. It has been a pleasure to work with Langan on this project. We look forward to working with you again in the future.

Sincerely, HAGER-RICHTER GEOSCIENCE, INC. dba HR Geological Services in NY

Amarke Jalin

Amanda Fabian, P.G. (NY 000567) Geophysicist

Attachments: Figures 1-3













### **APPENDIX B**

**Boring and Well Logs** 

LANGAN

#### Log of Boring LSB-1/LMW-1/LSV-1 Sheet 1 of 3

	Project					Project No	).								
			130 Saint Felix Street	Site					100	842301					
	Location					Elevation a	and D	atun	۱						
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	Drilling	quipi		04401.0		Completio	n Dep	JULI		50.4		ROCK	Depth		
	Size and	Type	of Bit						Dist	Urbed		Un	disturbed	 Core	
		. )	2 in Stainless Steel Dir	rect Push; 4 in Carbide	Core	Number of	f Sam	ples			10				
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Ā	Sampler	Hamı	mer	Weight (Ibs)	Drop (in)			Т	omas	s Monti	Davar	na Arr	ue		
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ij	MBO	Elev.		Sample Description		Depth	per	e	Š.	etr. 6in	PID	)	(Drilling Fluid	Depth of Ca	sina
Repo	SY	(IL) +41.0				Scale	Num	Ē	Ē.	Pen res BL/	(ppn	n)	Fluid Loss, Drill	ing Resistanc	e, etc.)
_	****		Brown fine SAND, s	ome silt, trace fine grav	el, brick, coal, and	- 0 -	-				0.0	)	Started Drill	ing on 4/21	/2021
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### Log of Boring LSB-1/LMW-1/LSV-1 Sheet 2 of

3

Project			Project N	۱o.					
Locatio	n	130 Saint Felix Street Site	Elevation	n and D	atum	<u>100</u> າ	84230	1	
		130 Saint Felix Street, Brooklyn, NY				41.0	04-ft N	AVD88	
MATERIAL SYMBOL	Elev. (ft) +21.0	Sample Description	Dep Sca	th le Number	Type	Recov.	Penetr. resist BL/6in	ata PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
354 AM Report Log - LANGAN		Brown fine SAND, some silt, trace clay, fine gravel (moist) Brown fine-coarse SAND, some f-c gravel, trace silt (dry)	20 21 21 23 23 24 24 24 24 24 24 24 24 25 24 24 24 24 24 24 24 24 24 24 24 24 24	M-5	Macrocore	36			Switched to Sonic drilling methods using a Geoprobe 8140LC Drill Rig at 25-ft bgs.
TERPRISE.GPJ 8/16/2021 10:26		Brown fine-coarse SAND, trace silt, f-m gravel (dry)	27 - 28 - 29 - 30	M-1	BAG	50		0.2 0.0 0.3 0.0 0.0 0.0 0.0 0.0	
ONMENTAL/GINTLOGS/100842301_EN		fragments (dry)	- 31 - 32 - 33 - 34		BAG	28		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
PROJECT DATAL DISCIPLINE/ENVIR		Dark brown gravelly fine-coarse SAND, trace silt (dry) Reddish brown SAND, trace silt, gravel (dry)	- 35 - 36 - 37 - 37 - 38 - 39 - 39	M-3	BAG	48		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
WLANGAN COMIDATAIPARIDATA31100842301		Brown fine-coarse SAND, trace silt (wet)	40 41 42 43 44 44	M-4	BAG	48		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Collected 023_LSB-1_40-42 from 40-42-ft bgs.

### Log of Boring LSB-1/LMW-1/LSV-1 Sheet 3 of

3

Ρ	roject			Project No	•		100	04000	4	
L	ocation		130 Saint Felix Street Site	Elevation a	nd D	atum	100	84230	1	
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۲ <u>-</u> 6			Brown fine-medium SAND, trace silt (wet)	Ę	-				0.0	bgs.
ort: Lo				- 49 ·	-				0.0	to 5-ft bgs.
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#### Log of Borin**b SB-2/LMW-2/LSV-2A/B** Sheet 1 of 3

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#### Log of Borin**b <u>SB-2/LMW-2/LSV-2A/B</u>** Sheet 2 of 3

Project			Proje	ct No.						
Location		130 Saint Felix Street Site	Elova	tion and [	Dati	1	008	4230	1	
Location		130 Saint Felix Street, Brooklyn, NY	Eleva		Jall	4 4	2.99	9-ft NA	AVD88	_
MATERIAL SYMBOL	Elev. (ft) +23.0	Sample Description	E	Depth Lag		Type	San (Li)	Penetr. resist BL/6in <u>I</u>	ata PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
lepott: Log - LANGAN		Brown fine SAND, some silt, trace fine gravel (moist)		20 21 22 22 23 23 24	Macroore	IMaci ocore	48		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
PRISE GPJ 8/16/2021 10:30:04 AM F		Brown medium SAND, some f-c gravel, silt (moist)		25 26 27 27 28 29		DAG	20		0.3 0.2 0.1 0.2 0.1 0.3 0.3 0.0 0.0 0.0	Switched to Sonic drilling methods using a Geoprobe 8140LC Drill Rig at 25-ft bgs.
./GINTLOGS/100842301_ENTEF		Brown fine-coarse SAND, trace silt, fine gravel (moist) Brown medium silty SAND, trace gravel (moist)		30 31 32 33	2	DAG	28		0.0 0.0 0.0 0.0 0.0 0.0 0.0	
IISCIPLINE/ENVIRONMENTA		Brown fine-medium SAND, trace silt, gravel (moist)		34					0.0 0.0 0.0 0.0 0.2 0.2	
142301/PROJECT DATA_L		Brown fine-coarse SAND, trace silt (wet)		38		DAG	48		0.1 0.0 0.0 0.0 0.0 0.0	
WLANGAN COMIDATA/PAR/DATA31008				41 + + + + + + + + + + + + + + + + + + +		DAG .	48		0.1 0.0 0.2 0.0 0.2 0.0 0.2 0.0 0.0 0.0	Collected 025_LSB-2_42-44 from 42-44-ft bgs.

#### Log of Borin**b <u>SB-2/LMW-2/LSV-2A/B</u>** Sheet 3 of 3

Pro	ject			Project No			400	04000	4	
Loc	ation		130 Saint Felix Street Site	Elevation	and D	atum	100 1	84230	1	
			130 Saint Felix Street, Brooklyn, NY				42.9	99-ft N	AVD88	
SIAL	30L	Flev		Denth	r		Sa	mple D	ata	Remarks
MATER	SYME	(ft)	Sample Description	Scale	Iumbe	Type	(in)	Peneti resist BL/6ir	Reading (ppm)	(Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
		-2.0	Brown fine-coarse SAND, trace silt (wet)	45 ·			-	-	0.2	
				- 46	-				0.0	
					-				0.0	
-				- 47	10	U			0.1	
NGA				- 48	įż	BA	22		0.3	LMW-2 installed to 50-ft bgs and screened from 39 to 49-ft
2 <u>7</u> -6				-	-				0.2	bgs. L SV-24 installed to 5-ft bos
ort: Lo				- 49	-				0.0	LSV-2B installed to 20.5-ft
Rep		-7.0			-				0.0	Dys. Bottom of boring on 4/26/2021
. AM				E						Bottom of boring on 4/20/2021
30:06				- 51						
021 10				- 52	-					
116/20										
یا ۲				- 53						
SE.GF				- 54	-					
RPR				-	-					
ENTE				- 55	-					
2301				56	-					
10084				57	-					
OGS				- 57	-					
GINTL				- 58	-					
NTAL				- 59	-					
NME				-	-					
VIRC				60	-					
NE/EI				- 61	-					
SCIPL				-	-					
DIG				- 62						
DAT				63	-					
DIECT				-						
1/PRC				- 64	-					
14230				65	-					
3/1008										
:DATA:				- 66 -	-					
PAR				67	-					
DATA					-					
COMI				E 08	-					
GAN.t				- 69	-					
//LAN					-					

Project			LUG	Pr	oiect No			0/2	UV-4			oneer 1	01	
TUJECL		130 Saint Felix Street Site			ojeci NO.			100	842301	1				
ocation				El	evation ar	nd Da	atum	1	0.200					
)rilling (	omna	130 Saint Felix Street, Brooklyn, NY			to Starto	4		46.3	33-ft N/	AVD88	Data F	Finished		
Jinning C	Joinpa	AARCO Environmental Services Corp						4	/21/21		Date I	IIIIsileu	4/21/21	
Drilling E	quipm	nent		Co	mpletion	Dep	th		//		Rock I	Depth		
Sizo and	Turno	Geoprobe 6610 DT						Diet	25 ft		LID	diaturbad		
size and	туре	2 Inch Stainless Steel Direct Push		Νι	umber of S	Samp	oles	Dist	urbea	5		aisturbea 	Core	
Casing D	Diamet	ter (in)	Casing Depth (ft)	w	ater Leve	l (ft.)		Firs	t		Co	mpletion	24 HR.	
Casing H	lamm	er Weight (lbs)	Drop (in)	Dr	illing Fore	emar	ı	<u> </u>				<u> </u>	<u> </u>	
Sampler		1 75 in x 5 ft Acotato Lined Macrosoro		Ŀ			S	Sergio	Magai	na				
Sampler	Hamr	mer Weight (lbs)	Drop (in)	1+10	eld Engine	eer	-							
								Sa	mple D	ata				
MBOL	Elev.	Sample Descr	ption		Depth	ber	pe	.vo:	ietr. tist 6in	PI	) ing	(Drilling Fluid, D	Depth of Casing	1.
-SA SY	(IL) +46.3	•	1		ocale	Nun	Τ	(jr	Pen res BL/	(ppr	n)	Fluid Loss, Drilling	g Resistance, el	tc.)
		Brown SAND, some silt, trace fine gr	avel and concrete (moist)		E -					0.0	)	Started Drillin	g on 4/21/20	)21
					E 1 -					0.0	)	Collected 005	_LSB-3_0-2	2
$\otimes$					Ë E	1				0.0	)	from U-2-ft bg	js	
					- 2 -	-	core			0.0	)			
						l≥	lacro	36		0.0	)			
					- 3 -		2			0.0	)			
					- 4 -	1				0.0	, )			
										0.0	)			
		Brown SAND. concrete. some silt. tra	ace fine aravel (moist)		- 5 -	-				0.0	)			
		[FILL]	0 ( )							0.0	)			
					- 6 -	M-24				0.0	)			
					- 7 -	101-27-	e			0.0	, )			
						1	croco	48		0.0	)			
					- 8 -	1	Ma			0.0	)			
						1				0.0	)			
					- 9 -	М-2Е	3			0.0	)			
					E 10 -	1				0.0	)			
		Brown Tine SAND, some silt, trace fir	ie gravei (moist) [FILL]			1				0.0	)			
					- 11 -	1				0.0	)			
	+34 3									0.0	)			
	. 54.5	Brown fine SAND, some silt (moist)			F 12 -	ကု	OCOLE	ø		0.0	)			
					- 13 -	Σ	Macr	4		0.0	, )	Collected 007		15
					Ē	1				0.0	)	from 13-15-ft		-13
					- 14 -	1				0.0	)			
						1				0.0	)			
		Brown fine SAND, some silt, trace fir	e gravel (moist)		F 15 -					0.0	)			
					E 16 -	]				0.0	, )			
					Ē	1				0.0	)			
					- 17 -	4	core			0.0	)			
						ž	lacro	48		0.0	)			
					F 18 -	1	Z			0.0	)			
					- 19 -	1				0.0 0.0	, )			
										0.0		1		

### Log of Boring LSB-3/LSV-4A/B Sheet 2

2

of

Ρ	roject		130 Spint Falix Street Site	Project No.			100	84220	1	
Ŀ	ocation	I		Elevation a	nd Da	atum	100	04230	1	
			130 Saint Felix Street, Brooklyn, NY		-		46.3	33-ft N/	AVD88	
	ERIAL MBOL	Elev.	Sample Description	Depth	ber	e	Sa	mple D	PID	Remarks
	SYN	(ft) +26.3			Num	тyр	Rect (in	Pene resi BL/6	Reading (ppm)	Fluid Loss, Drilling Resistance, etc.)
			Brown fine SAND, some silt, trace fine gravel (moist)	_ 20					0.0 0.0	
				- 21 -					0.0	Collected 006_LSB-3_20-22
				- 22 -		ore			0.0	from 20-22-ft bgs
NGAN					-2 -2	lacroc	48		0.0	LSV-4A installed to 5-ft bgs.
IA1-9				- 23 -		2			0.0 0.0	bgs.
ort: Lo				- 24 -					0.0	
Rep		+21.3		25 -	-				0.0	Bottom of boring on 4/21/2021
22 PM										
11:01:2				- 26 -						
/2021				- 27 -						
8/28				- 28 -						
GPJ.										
PRISE				29 -						
INTER				- 30 -						
2301_E				- 31 -						
10084				- 32						
LOGS				- 52						
<b>\GINT</b>				- 33 -						
ENTAL				- 34 -						
NNOS				- 25 -						
ENVIE										
PLINE				- 36 -						
DISCI				- 37 -						
DATA				- 20 -						
JECT [				_ 30 -	1					
VPRO.				- 39 -						
42301				- 40 -						
3\100{										
<b>DATA</b>				- 41 -						
A\PAR				- 42 -						
ADAT.				43 -						
N.CON					1					
ANGA				- 44 -	1					
₹Ľ					1					

	L	4	NGA	<b>4</b> N	Log	of E	Borin	q	LS	SB	-4/L	.SV-5	A/B		Sheet		of	2
ſ	Project					Pr	oject l	No.										
	Location		130 Saint Felix Street	t Site		Ele	evatio	n an	d Da	tum	100	842301	1					
			130 Saint Felix Street	t, Brooklyn, NY							47.4	45-ft N/	AVD88					
	Drilling C	Compa	any			Da	ate Sta	arted						Date I	Finished			
ł	Drilling E	quipn	AARCO Environment	al Services Corp.		Co	mplet	tion I	Dept	h	2	1/21/21		Rock	Depth	4/2	21/21	
		_	Geoprobe 6610 DT									25 ft						
	Size and	l ype	2 Inch Stainless Stee	l Direct Push		Nι	umber	of S	amp	les	Dis	turbed	5	Un	disturbed	C	ore	
ſ	Casing E	Diame	ter (in) 		Casing Depth (ft)	w	ater L	evel	(ft.)		Firs	st 7		Co	mpletion	24	4 HR. V	
ľ	Casing H	lamm	er	Weight (lbs)	Drop (in)	Dr	illing l	Fore	man								<u> </u>	
N P	Sampler		1.75 in x 5 ft Acetate	Lined Macrocore	<b>I</b>	Fie	eld En	igine	er	S	ergio	o Magar	na					
I	Sampler	Hamr	mer	Weight (lbs)	Drop (in)			<u> </u>		Т	oma	s Monti						
- GG	RIAL	Elev.					Der	oth	Ē		Sa	mple Da	ata PI		Re	mar	ks	
report	MATE SYME	(ft)		Sample Description			Sca	ale	Mumb	Type	Reco	Penet resis BL/6i	Read (pp	ling m)	(Drilling Fluid Fluid Loss, Drill	, Dep ing R	th of Casing esistance, e	g, etc.)
	****	+47.5	Brown fine SAND, s	some silt, trace fine grav	vel, brick, and			-	-				0.	, ,	Started Drill	ing c	on 4/21/20	021
N OI			concrete (moist) [F	ILL]			- - 1	_					0. 0	ว ว	Collected 00	)3_L	SB-4_0-2	2
10:30							Ē	-					0.	0	from 0-2-ft l	ogs		
							- 2	-	÷	core	<b>+</b>		0.	D				
01/0							- 3	_	Ę	Macro	27		0.	) 1				
							Ę						0.	5				
							- 4	-					0.	C				
1111							Ē	-					0.	0				
			Brown fine SAND, s (moist) [FILL]	some silt, trace fine grav	vel, brick, concrete								0. 0.	2				
2301							- 6	-					0.	0				
10084		+40 5					È _	1	M-2A				0.	C				
1990			Brown fine SAND,	some silt (moist)			Ē	-		rocore	18		0. 0	ว า				
							- 8	-		Mac	7		0.	0				
							Ē	-					0.	D				
NEN.							- 9 -	-	M-2B				0.	D N	Collected 00 from 8-10-ft	)4_L bas	SB-4_8-′	10
			Brown fine SAND	some silt_trace fine grav	vel (moist)		- 10	) 🕂					0.	0		- 3-		
							Ē						0.	D				
LIN.							- 1' -						0.	) )				
							- 12	2 –		ore			0.	5 D				
N N									Š	acroc	48		0.	D				
							E 13	3 -		Z			0. 0	ว า				
							E 14	1 -					0.	5				
100							È .						0.	D				
10842			Brown fine SAND,	some silt, trace fine grav	vel (moist)		E 15	) <del> </del>					0.	D N				
H3/II							E 16	3 -					0. 0.	5				
							È.						0.	C				
ALFA							E 17		4	rocore	81		0.	D N				
							E 18	3 -	2	Maci	4		0. 0.	5				
							È.						0.	D				
NGAL							- 19 -	9 -					0.	) 1				
¥.							E 20	Ē,					0.	J				

### Log of Boring LSB-4/LSV-5A/B Sheet 2

2

of

Project		420 Coline Fallis Chrone Cite	Project No	•		100	04000	4	
Locatio	n	130 Saint Feilx Street Site	Elevation a	nd D	atum	100	84230	I	
		130 Saint Felix Street, Brooklyn, NY				47.4	l5-ft N/	AVD88	
OL	Floy		Donth	-	Γ	Sa	mple D	ata	Remarks
MATEF	(ft)	Sample Description	Scale	Iumbe	Type	(in)	<sup>9</sup> enetr resist BL/6ir	Reading (ppm)	(Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+27.5	Brown fine SAND, some silt, trace fine gravel (moist)	20 -				<u> </u>	0.0	
			- 21 -	-				0.0	
				-				0.0	from 20-22-ft bgs
			- 22 -		core	~		0.0	
NGA			- 23 -	įż	Macro	3		0.0	LSV-5A installed to 5-ft bgs. LSV-5B installed to 20.5-ft
<u>م</u> - ۲								0.0	bgs.
ort: Lo			- 24 -	-				0.0	
de	+22.5			-				0.0	Pottom of boring on 4/21/2021
. AM .									
:30:16			- 26 -						
21 10			- 27 -	=					
/16/20			E	-					
یا ۔۔ ا			- 28 -						
SE.GF			29 -	=					
RPRI			Ē	-					
ENTE			- 30 -	-					
2301			- 31 -	-					
10084			-	-					
OGS			- 52	-					
GINTL			- 33 -	-					
NTAL			- 34 -						
NMEI				-					
AVIRO			- 35 -						
NE/EI			- 36 -	=					
CIPLI			Ē	-					
DIG			- 37 -						
DAT			- 38 -	-					
JECT			-	-					
INPRO			- 39 -	-					
4230			- 40 -	-					
3/100£			È						
DATA			E 41 -						
PAR			- 42 -	-					
ATA			-	-					
COMI			E 43 -						
GAN.(			- 44 -	-					
//LAN			<u> </u>	-					

#### Log of Borin**b**.SB-5/LMW-3/LSV-6A/B Sheet 1 of 3

1	Project					Project No.									
			130 Saint Felix Street	Site		-			1008	842301	I				
	Location					Elevation and	Da	atum							
			130 Saint Felix Street,	, Brooklyn, NY					45.2	2-ft NA	VD88				
	Drilling C	Compa	any			Date Started						Date F	inished		
			AARCO Environmenta	al Services Corp.					4	/21/21				4/24/21	
	Drilling E	Equipn	nent			Completion D	ept	th				Rock I	Depth		
			Geoprobe 6610 DT; G	eoprobe 8140LC						50 ft					
	Size and	Туре	of Bit	root Duch: 1 in Carhida	Coro	Number of Sa	mp	oles	Dist	urbed	10	Un	disturbed	Core	
	Casing D	Diame	ter (in)	rect Fush, 4 in Carbide	Core Casing Depth (ft)		-		First	t	10	Co	 mpletion	24 HR.	
	- 0		4 1/2 in			Water Level (	ft.)		$  \nabla$		41		<u> </u>	<b>V</b>	
	Casing H	lamm	er	Weight (lbs)	Drop (in)	Drilling Forem	nan	ľ							
Z	Sampler			in a l Marina Dalar				S	ergio	Magar	na; Tor	nmy S	Seickel		
NG/	Somplor	Home	1.75 IN X 5 IT ACETATE L	_Ined Macrocore; Polye	Drop (in)	Field Enginee	er								
₹.	Sampler	патт						Т	omas	s Monti	; Daya	na Arr	ue		
Log	ЪЪ	<b>-</b> 1				Dauth	-		Sa	mple Da	ata		Rem	harks	
:Lo	YMB	Elev. (ft)		Sample Description		Scale	nbei	/pe	in) co	netr. sist /6in	PI Read	) lina	(Drilling Fluid, [	Depth of Casing	g,
Rep	<sup>M</sup> A	+45.2					Nur	F	Ba :	Pel BLa	(pp	n)	Fluid Loss, Drilling	g Resistance, e	etc.)
 N			Dark gray fine SAN	D, some silt, trace fine	gravel, brick,						0.	)	Started Drillin	g on 4/21/2	021
22 A			concrete, coal (mois	st) [FILL]		⊧ , ╡					0.		Collected 001	LSB-5 0-3	2
30:2											0.	U	from 0-2-ft bg	0_  S	-
10											0.	0	_		
202							-	core	_		0.	D			
/16/						E ]:	Ϋ́	acro	24		0.	D			
80	*****					- 3 -		ž			0.	C			
GPJ	*****					E E					0.	C			
ISE.						- 4 -					0.	D			
RPR						E E					0.	D			
Ē			Brown fine SAND, s	ome silt. trace fine grav	/el. brick. coal	- 5 <del> </del>	_				0.	C			
٣	*****		(moist) [FILL]	Serve end, d'acce inte gra		F 7					0.	C			
2301	*****					<u> </u>					0.	D			
084						F 1					0.	D			
S/10								ore			0.	C			
00						F 4	N-2	croc	24		0.	C			
Ī						- 8 -	_	Ma			0.	C			
AL/G						F 4					0.	C			
NT/						<u> </u>					0.	D			
NME						<u> </u>					0.	C			
RO	*****		Brown fing SAND	omo silt traco fino grav	ol brick coal	- 10 -					0.	C			
N			(moist) [FILL]	some sin, trace time grav	ei, Drick, Coai	E 3					0.	D			
ΝE						- 11 -					0.	D			
ЧĽ	*****					E Im	I-3A				0.	D			
JSIC		+33.2	Drown fine CAND	omo oilt (moiot)		<del> </del> 12 ∔		Jre			0.	D			
A_I			Brown line SAIND, S	Some Silt (moist)		E E		cocc	48		0.	D			
DAJ						F 13 −		Мас			0	D			
ECT						E 3					0	D			
SOJE											0.	0	Collected 000		15
1/PF						E ⊅	I-3B				0.	-	from 13-15-ft	_LSD-3_13 bas	-15
1230											0.	- )		5	
<b>J084</b>			Brown fine SAND, s	some silt (moist)		Ę ~ Į					0.	- 1			
13/11						E 16 -					0.	- 1			
AT/						Ę ĭ ŧ					0.	ן ר			
AR/L								e			0.	- 1			
A/P,						_	4	000	4		0.	5 1			
DAT							Z	Macr	<sup>(N</sup>		0.	5 1			
WO:											0.	5 1			
N.C											0.				
NGA											0.0	5			
<b>I</b>	<u> </u>					<u> </u>					0.	J			

#### Log of Borin**b <u>SB-5/LMW-3/LSV-6A/B</u>** Sheet 2 of 3

Project			Proje	ct No.						
Location	1	130 Saint Felix Street Site	Eleva	ation ar	nd Da	atum	100	84230	1	
		130 Saint Felix Street, Brooklyn, NY			-		45.2	22-ft N/	AVD88	
MATERIAL SYMBOL	Elev. (ft) +25.2	Sample Description	E S	Depth Scale	Number	Type	Recov. (in)	Penetr. resist BL/6in Q aldu	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
oot: Log - LANGAN		Brown fine SAND, some silt (moist)		20 21 22 23 23 24	M-5	Macrocore	12		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
10:30:22 AM Rep		Brown gravelly medium-coarse SAND (dry)		25 -					0.0 0.0 0.3 0.0 0.0	Switched to Sonic drilling methods using a Geoprobe 8140LC Drill Rig at 25-ft bgs.
ISE.GPJ 8/16/2021		Brown gravelly medium-coarse SAND (dry)		27 - 28 - 29 -	A-1	BAG	42		0.1 0.0 0.0 0.0 0.0	
	+15.2	Reddish brown sandy fine angular GRAVEL, trace silt (dry)		30 -					0.0 0.0 0.2 0.1	
IMENTAL/GINTLOGS/10		Reddish brown sandy fine angular GRAVEL, trace silt (dry)		32 - 33 - 34 -	M-2	BAG	48		0.0 0.0 0.1 0.0 0.0	
ISCIPLINE/ENVIRON	+10.2	Brown medium-coarse SAND, trace silt (dry)		35 -					0.0 0.3 0.1 0.1	
	+7.6	Brown fine-medium SAND, trace silt (dry) Brown sandy fine-medium rounded GRAVEL, trace silt (moist)		38	M-3	BAG	48		0.0 0.0 0.0 0.0 0.0	
NIGAN COMUALAPARUALASI UUGAS	+5.2	Brown fine-coarse SAND (moist) Brown fine-coarse SAND (wet) Brown fine-medium SAND, trace silt (wet)		40 - 41 - 42 - 43 - 44 - 44 - 44 - 44 - 44 - 44	M-4	BAG	36		0.0 0.2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Collected 022_LSB-5_42-44 from 42-44-ft bgs

#### Log of Borin**b <u>SB-5/LMW-3/LSV-6A/B</u>** Sheet 3 of 3

	Project			Project No	•		400	0.4000	4	
ł	Location	I	130 Saint Felix Street Site	Elevation a	ind D	atum	100	84230	1	
			130 Saint Felix Street, Brooklyn, NY				45.2	22-ft N/	AVD88	
ſ	0L 0L	Floy		Dopth	-	1	Sa	mple D	ata	Remarks
	MATEF SYMB	(ft)	Sample Description	Scale	umbe	Type	(in)	enetr resist 3L/6in	PID Reading (ppm)	(Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	-	+0.2	Brown medium-coarse SAND (wet)	- 45 -	Z		-		0.0	
				E 16	-				0.0	
				40	1				0.0	
_				47	1	0			0.0	
NGA				E 18	Ż	BA	42		0.0	LMW-3 installed to 50-ft bgs
g - LA					-				0.0	bgs.
ort: Lo				- 49	-				0.0	LSV-6B installed to 20.5-ft
Repo		-4.8		50 ·	-				0.0	bgs.
AM										11:30 AM
30:23				- 51	-					
21 10				- 52	-					
'16/20				-						
J 8				- 53	-					
SE.GP				- 54	-					
RPRI				Ē						
ENTE				- 55	-					
2301				56						
10084										
OGS/				- 5/	-					
GINTL				- 58						
ITAL/0				- 50						
NMEN				_ 59						
IVIRO				E 60	-					
VE/EN				- 61	_					
CIPLI				-	-					
DIS				62						
DATA				63	-					
JECT				Ē						
<b>\PRO</b>				- 64						
42301				65	-					
\1008				Ē	-					
ATA3				- 66 -						
PAR/C				67						
NATAN				-						
OME				- 68	-					
BAN.C				69	-					
ILANC										
				/0 -						

#### Log of Borin**b**.SB-6/LMW-4/LSV-7A/B Sheet 1 of 3

130 Saint Felix Street Site     1002201       Location     Elevation and Datum       130 Saint Felix Street, Brooklyn, NY     Date Started     Date Finished       01ling Company     Date Started     Date Finished       AARCO Environmental Services Corp.     Completion Depth     Rock Depth       2 In Stainless Steel Direct Push, 4 in Carbide Core     Number of Samples     Disturbed     10       Casing Diammer_     Weight (bb)     Completion     First     24 HR.       Casing Diammer_     Weight (bb)     Drop (in)     Dilling Foremans     Sampler       Sampler Hammer	
Location     Hewton and Datum       130 Saint Felix Street, Brooklyn, NY     Date Started       Difling Company     AARCO Environmental Services Corp.     Difling Fourpoint       Geograbe 6610 DT; Geograbe 8140LC     Completion Depth     Rock Depth       Size and Type filt     Stainless Steel Direct Push; 4 in Carbide Core     Number of Samples       Casing Dammer (in)     Casing Dammer,     Undisturbed     Ord       Sampler 1.75 in X 5 ft Acetate Lined Macrocore; Polyethylene Slevee     Field Engineer     Sampler Data       Sampler Hammer      Drop (in)	
130 Saint Felix Street, Brooklyn, NY     25.95-ft NAVD88       Drilling Company     Date Started     Date Started       Drilling Equipment     Completion Depth     Dot Started Finished       Drilling Company     Completion Depth     Somplet finit       Completion Depth     Somplet finit       Casing Diameter (in)     Casing Danter (in)     Casing Danter (in)       Casing Hammer     Origin (ins 5 ft Acetate Lined Macrocore; Polyethylene Sleeve       Sample 1 1.75 in x 5 ft Acetate Lined Macrocore; Polyethylene Sleeve       Sample Data     Compression       Sample Data     Reading	
Diming Contrainy     Date Carlied     Date Carlied     Date Carlied     Date Carlied     4/21/21     4/24/21       Drilling Equipment     Geographe 6610 DT; Geographe 8140LC     S0 ft	
Drilling Equipment     4/2/1/21     Rock Depth       Geoprobe 6610 DT; Geoprobe 8140LC     50 ft     -       Size and Type of Bit     Casing Diameter (in)     Casing Depth (ib)     -       Casing Hammer	
Bits     Size and Type of Bit     Size and Type of Bit     Under of Samples     Disturbed     Under of Samples       1 in Stainless Steel Direct Push; 4 in Carbide Core     Core     Number of Samples     Disturbed     Undisturbed     -     -     -     -     24 HR.       Casing Hammer     Weight (bs)      Drop (in)      Diling Foreman     Sergio Magana; Tommy Seickel	 
Size and Type of Bit       Disturbed       Undisturbed       Core         Casing Dameter (in)       Automation of the second of the	
2 in Stainless Steel Direct Push; 4 in Carbide Core     Number of completion	
Casing Damielei (in)       Casing Deprint       Water Level (ft.)       Pist 42       Completion 22 Prc.         Casing Hammer	<u></u>
Casing Hammer	
Sampler     1.75 in x 5 ft Acetate Lined Macrocore; Polyethylene Sleeve     Sergio Magana; Tommy Seickel       Sampler     1.75 in x 5 ft Acetate Lined Macrocore; Polyethylene Sleeve     Field Engineer       Sampler Hammer     Weight (lbs)     Drop (in)     Tomas Monti; Dayana Arrue       Tomas Monti; Dayana Arrue     Collected Dayana Arrue       Sampler Hammer     O     Remarks       Migging Elev.     Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     O     Started Drilling on 4/21/21       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti; Dayana Arrue     Collected 011_LSB-6_0-2       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     O     Started Drilling on 4/21/21       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti; Dayana Arrue       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti; Dayana Arrue       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti; Dayana Arrue       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti; Dayana Arrue       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Tomas Monti Dayana Arrue       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FiLL]     Tomas Monti Dayana Arrue	
Image: Sampler Hammer     Image: Field Engineer       Sampler Hammer     Image: Weight (lbs)     Image: Drop (in)       Sampler Hammer     Image: Construction       Sampler Hammer     Sample Description       Sampler Hammer     Sample Description       Sampler Hammer     Sample Description       Hatso     Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Output Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Output Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Sample Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Sample Description     Sample Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Sample Description     Sample Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Sample Description     Sample Description     Sample Description       Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Sample Description     Sample Description	
Solume     Concrete (moist) [FILL]     Concrete (m	
Transmitter       Sample Description       Sample Description       Sample Description       Remarks (Drilling Fluid, Depth of Casing (ppm)         ************************************	
Understand     Sample Description     Scale     Main     Scale     Main     Reading (pm)     Colling Fluid. Desting freestance, e       Image: State Drilling of the SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     Brown fine SAND, some silt, trace fine gravel, brick, coal, concrete (moist) [FILL]     0     0     State Drilling freestance, e       Image: State Drilling freestance, e     0     0     0     0     Collected 011_LSB-6_0-2       Image: State Drilling freestance, e     0     0     0     0     Collected 011_LSB-6_0-2       Image: State Drilling freestance, e     0     0     0     0     Collected 011_LSB-6_0-2       Image: State Drilling freestance, e     0     0     0     0     Collected 011_LSB-6_0-2       Image: State Drilling freestance, e     0     0     0     0     Collected 011_LSB-6_0-2       Image: State Drilling freestance, e     0     0     0     0     0       Image: State Drilling freestance, e     0     0     0     0     0       Image: State Drilling freestance, e     0     0     0     0     0       Image: State Drilling freestance, e     0     0     0     0     0       Image: State Drilling freestance, e     0     0     0     0     0       Image: St	
2       +46.0       Find Dass, Diming Restance, et al.         0       2       Find Dass, Diming Restance, et al.       0.0         0       2       0.0       0.0         0       0       0.0       0.0         0       0       0.0       0.0         0       0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0       0.0       0.0         0       0.0	, to)
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Concrete (moist) [FILL]  Concrete (moist) [FIL	
0.0     0.0       0.0     0.0       0.0     24       0.0     24	
0.0     0.0       0.0     0.0       0.0     0.0       0.0     0.0       0.0     74       0.0     74       0.0     74	
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	
ZXXXX   F 1   ■     0.0	
Brown fine SAND, some silt, trace fine gravel, brick, coal,	
[ 13 ] I <sup>™</sup> 0.0 Collected 012 LSB-6 13	15
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	-
Brown fine SAND, some silt (moist) $\begin{bmatrix} 15 \\ - \end{bmatrix} = \begin{bmatrix} 15 \\ - \end{bmatrix} = \begin{bmatrix} 0.0 \\ 0.0 \end{bmatrix}$	
≥ <u> </u>	

#### Log of Borin**b <u>SB-6/LMW-4/LSV-7A/B</u>** Sheet 2 of 3

Project			Project	No.						
Locatior	ı	130 Saint Felix Street Site	Elevati	on and	Dat	tum	1008	842301		
		130 Saint Felix Street, Brooklyn, NY					45.9	98-ft NA	AVD88	
RIAL BOL	Elev.		De	epth a			Sa v	mple Da	ata PID	Remarks
MATE SYMI	(ft) +26.0	Sample Description	So		dunn	Type	Reco (in)	Penet resis BL/6i	Reading (ppm)	(Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	•	Gray GRAVEL (dry)	2	20					0.0 0.0	
	+25.0	Tannish brown gravelly coarse SAND (drv)		21 -					0.0	
			Ē,			a			0.0	
		Tannish brown coarse-fine SAND, trace wood (dry)		22 - <u>-</u> 4	<u>0</u>	crocore	48		0.0 0.0	
			- 2	23 - [	2	Mac	•		0.0	
									0.0	
				4					0.0	
		Brown gravelly coarse SAND (drv)	- 2	25 +					0.0	Switched to Sonic drilling
	.]		Ę,						0.0	methods using a Geoprobe 8140LC Drill Rig at 25-ft bos.
	• +19.5								0.0 0.0	
		GrayIsh brown sandy GRAVEL (dry)	- 2	27 -	_				0.0	
			Ē		± ľ	BAG	48		0.0	
		Grav GRAVEL (drv)		28 -					0.0 0.0	
	+17.0	Brown coarse SAND, trace gravel (drv)		29 -					0.0	
	+16.0		Ę,						0.0	
	• 10.0	Brown sandy medium GRAVEL (dry)	Ē						0.0 0.0	
			- 3	31 –					0.0	
			-						0.0	
		Gray fine GRAVEL (dry)	Ē		7-1	ggg	48		0.0 0.0	
			- 3	33 - [ -	<  '	"	•		0.0	
	+12.0								0.0	
		Reddish brown gravelly coarse SAND (dry)		4					0.0	
		Brownish brown gravelly coarse SAND (dry)	- 3	35 🕂	+				0.0	
									0.0	
									0.0	
			- 3	37 –	2	0			0.0	
	+8.0				ź	BAO	43		0.0	
		Brownish brown sandy fine-medium GRAVEL (dry)	Ē						0.1	
			- 3	39 –					0.0	
	+6.0			10					0.1	
		Light brown gravelly SAND (dry)	Ę						0.0	
		Brown grouply modium coorse SAND trace cilt (wet)	- 4	11 -					0.0	
		Brown gravery medium warse SAND, trace Silt (Wet)	ŢĒ,	12					0.0	
						BAG	58		0.0	from 42-44-ft bgs
			<u> </u>	13 - [ -	-  '	-				
	]		Ē,	Ē					0.0	
			Ē	<b>"</b>					0.0	
									0.0 0.0 0.0	

#### Log of Borin**b <u>SB-6/LMW-4/LSV-7A/B</u>** Sheet 3 of 3

Project		120 Saint Falix Street Site	Project	t No.			100	04000	4	
Locatio	n	130 Saint Feix Street Site	Elevati	on and	Datu	um	1000	04230	I	
		130 Saint Felix Street, Brooklyn, NY					45.9	98-ft N/	AVD88	
MATERIAL SYMBOL	Elev. (ft)	Sample Description	De So	epth to	lumber	Type	Recov. (in) BS	<sup>b</sup> enetr. resist ald BL/6in D	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	+1.0	Brown medium-coarse SAND (wet)	4	45 🕂	2		-	<u> </u>	0.0	
			- 4	46 –					0.0 0.0	
			Ē						0.0	
N <sup>A</sup>			Ē		ດ	2	55		0.1	I MM/ 4 installed to 50 ft has
LANG			- 4	48 - [	2   "		-,		0.0	and screened from 39 to 49-ft
ort: Log -				49 -					0.1 0.0	LSV-7A installed to 5-ft bgs. LSV-7B installed to 20.5-ft
den en e	-4.0		;	50 +					0.0	Dgs. Bottom of boring on 4/23/2021
1 AM			Ē							Dottom of boning on 4/25/2021
0:30:3			Ē	51 -						
2021 1			- t	52 -						
8/16/			Ę.	53 -						
SE.GPJ			Ę.	54 -						
ERPRIS			Ē	55 -						
			Ē							
384230				56 -						
0GS/10			- t	57 -						
GINTLO			Ę	58 -						
			- !	59 -						
SONME			È.							
			Ē							
			- 6	61 <u>-</u>						
DISC			<u> </u>	52 –						
DATA			Ē	53 –						
DJECT			Ē							
11/PRO			Ē	54 <u>-</u>						
084230			Ē	65 -						
TA3/10			Ē	56 -						
AR\DA				37 -						
ATA/P,			Ē							
(DWD)			Ē	58 <del>-</del>						
GAN.C			Ē	59 <del>-</del>						
MLAN			Ē,	70 -						

#### Log of Borin**b SB-7/LMW-5/LSV-8A/B** Sheet 1 of 3

	Project					Projec	t No.									
	Location		130 Saint Felix Street	Site		Elevat	ion and [	Dat	um	1008	342301					
	LUCALIUI		130 Saint Felix Street	Brooklyn NV		Lievai		Jai	um	44 6	8_ft NI	88ט//				
	Drilling (	Compa	any			Date S	Started			0	0-1111/		Date I	Finished		
			AARCO Environmenta	al Services Corp.						4	/21/21				4/26/21	
	Drilling I	Equipn	nent			Comp	letion De	pth	I		-0 4		Rock	Depth		
	Size and	Туре	of Bit	Seoprobe 8140LC						Dist	JU TC urbed		Un	disturbed	 Core	
	O a alia a I		2 in Stainless Steel Di	irect Push; 4 in Carbide C		Numb	er of Sar	npl	es	<b>-</b>		10				
	Casing I	Jame	4 1/2 in		asing Depth (it)	Water	Level (ft	.)		$\nabla$		40			$\underline{\mathbf{V}}$	
	Casing I	lamm	er	Weight (lbs)	Drop (in)	Drilling	g Forema	an						-		
GAN	Sampler		1.75 in x 5 ft Acetate I	Lined Macrocore; Polyeth	lene Sleeve	Field F	ngineer		Se	ergio	Magar	na; Ton	nmy S	Seickel		
LAN	Sampler	Hamr	ner	Weight (Ibs)	Drop (in)		Linginioon		Тс	omas	Monti	: Toma	s Moi	nti: Andrew Quir	n	
- Bo	۲L					·		_		Sar	nple Da	ata		Bor	orke	
oort: I	YMBC	Elev. (ft)		Sample Description		D S	epth   ] cale   ]		ype	in) cov.	esist -/6in	PII Read	) ling	(Drilling Fluid, E	Depth of Casing,	
Re	≧° ∕∕∕∕∕∕	+44.7					0	2	F	ж, )	Black	(ppr	n) ¯	Fluid Loss, Drilling	g Resistance, et	c.) 21
AM.			and coal (moist) [FI	some slit, trace fine gravel	, concrete, drick,	Ē						0.0	)	Started Drillin	y 011 4/2 1/20	21
30:38				-		F	1 -					0.0	)	from 0-2-ft bo	LSB-7_0-2	
10:01						Ē						0.0	)	101102103	,0	
/202						E	2 1	-	ocore	9		0.0	)			
8/16						E	3 - 2		Macn	ĉ		0.0	) J			
Р.						Ē						0.0	)			
SE.G						F	4 –					0.0	)			
RPRI						E	-					0.0	)			
HN			Brown fine SAND, s	some silt, trace fine gravel	, concrete, brick,	Ē	5 +					0.0	)			
<u>0</u>			coal (moist) [FILL]			E	6 -					0.0	)			
8423						E	JM-2	2A				0.0	)			
S\10(		+37.7	Brown fine SAND	some silt_trace_clay_(mois	t)	<u> </u>	7 🕂	-	ore			0.0	)			
LOG			brown nine oand, s	Some sin, trace clay (mois	()	E	=		acroc	48		0.0	)			
GINT						E	8 -		M			0.0	)			
ITAL						E	, i					0.0	)			
IMEN						E	° –M∹	2B				0.0	)	from 8-10-ft b	_LSB-7_8-10 as	0
IRO <sup>1</sup>			Brown fine SAND	some silt, trace clay (mois	t)	E	10 🕂	_				0.0	)		0	
NEN/			Brown fine OAND, a	Some sin, trace day (mois	()	E						0.0	)			
LINE						E	11 -					0.0	)			
SCIF						E	12		e			0.0	)			
AD						E	'² ] <u>°</u>	2	rocor	54		0.0	) J			
DAT						E	13 -		Mac			0.0	)			
JECT						E	=					0.0	)			
PRO,						F	14 –					0.0	)			
2301/						F	15					0.0	)			
<b>3084</b> 2			Brown fine SAND, s	some silt, trace clay (mois	t)	F		T				0.0	ר נ			
A3/1(						E	16 –					0.0	, )			
\DAT						F	Ę					0.0	)			
NPAR						F	17 -	-	core			0.0	)			
DATA						F			lacro	24		0.0	)			
OMIC						F	18 -		2			0.0	נ ר			
AN.C						Ē	19 -					0.0	, )			
ANG						Ē						0.0	)			
⋛						<u>t</u>	20									

#### Log of Borin**b <u>SB-7/LMW-5/LSV-8A/B</u>** Sheet 2 of 3

Project			Projec	ct No.						
Location	1	130 Saint Felix Street Site	Elevat	tion and	Da	tum	100	84230 <sup>-</sup>	1	
		130 Saint Felix Street, Brooklyn, NY					44.6	68-ft N/	AVD88	
MATERIAL SYMBOL	Elev. (ft) +24.7	Sample Description	D S	Depth Scale	Number	Type	Recov. (in)	Penetr. resist ald BL/6in D	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
NUCLE For Index - We provide a series to		Brown fine SAND, some silt, trace clay (moist) Brown medium SAND, some f-c gravel (moist)		20 21 22 23 24 25 26 27 28 28	M-1 M-5	BAG Macrocore	50 24		0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	Switched to Sonic drilling methods using a Geoprobe 8140LC Drill Rig at 25-ft bgs.
		Brown fine-coarse SAND, trace silt, fine gravel (moist)		29	M-2	BAG	28		0.0 0.0 0.0 0.0 0.0 0.0 0.1 0.1 0.1 0.3 0.0	
		Brown fine-medium SAND, trace silt, gravel (moist)		34					0.0 0.0 0.0 0.0 0.0 0.0	
				37	M-3	BAG	48		0.0 0.0 0.1 0.0 0.0 0.0	
		Brown fine-coarse SAND, trace silt (wet)		40 + + + + + + + + + + + + + + + + + + +	M-4	BAG	48		0.0 0.0 0.0 0.2 0.2 0.2 0.0 0.0 0.0	Collected 027_LSB-7_42-44 from 42-44-ft bgs

### Log of Borin**& <u>SB-7/LMW-5/LSV-8A/B</u>** Sheet 3 of 3

Project			Project N	0.		400	04000		
Locatio	n	130 Saint Felix Street Site	Elevation	and D	atum	100	84230	1	
		130 Saint Felix Street, Brooklyn, NY	1			44.6	58-ft N	AVD88	
7						Sa	mple D	ata	Demender
MATERIA SYMBOI	Elev. (ft)	Sample Description	Dept Scal	h agunn	Type	Recov. (in)	Penetr. resist BL/6in	PID Reading (ppm)	Remarks (Drilling Fluid, Depth of Casing, Fluid Loss, Drilling Resistance, etc.)
	-0.3	Brown fine-coarse SAND, some silt (wet)	45 	+				0.0	
			- 46	_				0.0	
				-				0.0	
_			- 47	-				0.1	
IGAN			Ē	Ξž	BAC	52		0.0	LMW-5 installed to 50-ft bgs
۲ <u>۲</u>			- 48	-				0.1	bgs.
Log			- 49	-				0.0	LSV-8A installed to 5-ft bgs. LSV-8B installed to 20.5-ft
(eport			E	3				0.0	bgs.
∑	-5.3		50 	-					Bottom of boring on 4/26/2021
:39 A			- 51	_					
10:30			Ē						
2021			- 52	-					
8/16			- 53	_					
GPJ			-	-					
RISE.0			- 54	-					
ERPI			55	_					
			Ē						
42301			56	-					
\$1100			57	_					
LOGS			Ē						
GINT			- 58	-					
NTAL			- 59	_					
ONME			Ē	]					
NVIRO			- 60 -						
NE/EI			- 61	_					
CIPLI			Ē	-					
DIS			- 62						
DATA			- 63	-					
JECT			Ē	-					
PRO			- 64						
12301			65	_					
1008			Ē						
ATA3			66	-					
AR\D			67	-					
ATA\F			Ē						
OM/D,			68						
AN.C			69	_					
ANG			Ę						
<b>Z</b>			<u> </u>	_1					

		LOG OF TES	ST I	PIT 1	TP-	1		S	heet	1 of	1
PROJECT	<sup>-</sup> NAME ) Sain	t Felix Street Site	PROJE	CT NUMBE	R	10084	12301	DATE		4/19/20	)21
LOCATIO	v ) Sain	t Felix Street, Brooklyn. NY	ELEVA	TION				42	.99 <b>_</b> ft	NAVD	88
EXCAVAT AA		NTRACTOR Environmental Services Corp	DEPTH		Q f	4	WATER LE	VEL - First	WATEF	LEVEL - C	ompletion
EQUIPME	NT boot E	25i Mini Everyeter	FOREM	IAN	Doub	i Dor		LANGAN PERSO		thor Arth	
					SAN	I Falt			s		
Symbol	ELEV (feet)	DESCRIPTION		Depth Scale	mber	ype		REMA	RKS		
	+43.0	Brown fine SAND some silt trace fine gravel concrete and bri	ck	0	ž	-					
		(dry) [FILL]	ON		]						
				_ 1	_		5-ft X 5-ft	Test Pit Comp	leted		
				-	-		No PID re	adings above (	).0 ppm	, evidence	e of
				_	-		visual or o undergrou	und storage tan	s, or ev ks were	idence of	any d.
<u>}</u>				- 2	-			0			
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				- 3	-						
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				15	]						
	I/V	<b>D</b> AN									

		LOG OF TE	ST	PIT T	<b>P-</b>	2		5	Sheet	1 of	1
PROJEC <sup>-</sup>	г NAME 0 Saint	t Felix Street Site	PROJE	CT NUMBER	۶	10084	42301	DATE		4/19/202	21
LOCATIO	N () Saint	t Felix Street, Brooklyn, NY	ELEVA	TION				۸۲	) 90_ft I		88
EXCAVA		NTRACTOR	DEPTH		~	<u> </u>	WATER LE	VEL - First	WATER	LEVEL - Co	
EQUIPME			FOREM	IAN	8 f	τ		LANGAN PERS	ONNEL		<u> </u>
Bo	bcat E	35i Mini Excavator			Dayb	i Paro APLE	checo		Est	her Arth	ur
Symbol	ELEV (feet)	DESCRIPTION		Depth Scale	Number	Type		REM	ARKS		
	+43.0	Brown fine SAND, some silt, trace fine gravel, concrete, and br (dry) [FILL]	ick				5-ft X 3-ft No PID re visual or o undergrou	t Test Pit Comp eadings above ( olfactory impac und storage tar	oleted D.0 ppm, ts, or evia iks were	evidence dence of observed	e of any I.
		GAN		15	-						

	LOG OF	<u>test f</u>	<u> דוי</u>	[P-3		S	Sheet 1	of 1
ROJECT NAME 130 Sai	E nt Felix Street Site	PROJE	CT NUMBER	۲ 1008	42301	DATE	4/19	)/2021
осатіон 130 Sai	nt Felix Street, Brooklyn, NY	ELEVA	ION			46	6.33-ft NA\	/D88
EXCAVATION C	ONTRACTOR DEnvironmental Services Corp.	DEPTH		8 ft	WATER I	LEVEL - First	WATER LEVE	L - Completio
QUIPMENT Bobcat	E35i Mini Excavator	FOREM	AN	Daybi Par	checo	LANGAN PERS	ONNEL Esther	Arthur
Symbol ELEV (feet)	DESCRIPTION		Depth Scale	SAMPLE In the second se		REM	ARKS	
+38.3	Brown fine SAND, some silt, trace fine gravel, concrete, (dry) [FILL]	and brick	$\begin{array}{c} 0 \\ 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \\ 10 \\ 11 \\ 12 \\ 13 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14 \\ 14$		5-ft X 4 No PID visual o undergr	-ft Test Pit Comp readings above ( or olfactory impact round storage tar	oleted D.0 ppm, evide ts, or evidenc iks were obse	ence of e of any erved.

		LOG OF TES	ST	PIT 1	۲P-	4		S	heet	1 of	1
PROJECT	<sup>r</sup> NAME D Sain	t Felix Street Site	PROJE	CT NUMBEI	R	10084	12301	DATE		4/20/20	)21
LOCATIO	N ) Sain	t Felix Street, Brooklyn, NY	ELEVA	TION				46	5.33-ft	NAVD	88
EXCAVAT AA	rion co	NTRACTOR Environmental Services Corp.	DEPTH		8 f	ť	WATER LE	VEL - First	WATER	LEVEL - C	
EQUIPME	NT bcat E	35i Mini Excavator	FOREM	IAN	Davb	i Paro	checo	LANGAN PERSO		sther Arth	hur
	ELEV.			Denth	SAN	/IPLE		1			
Symbol	(feet)	DESCRIPTION		Scale	Mumbe	Type		REMA	RKS		
	+46.3	Brown fine SAND, some silt, trace fine gravel, concrete, and bri	ck	0	-						
		(dry) [FILL]					4-ft X 4-ft	Test Pit Comp	leted		
				- 1			No PID re	adinas above (	) () nnm	. evidenc	e of
				_ ·	-		visual or o	olfactory impact	s, or e	/idence of	fany
				- 2			undergrou	und storage tan	ks were	e observe	ed.
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	+38.3			- 8							
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ALIGIN											
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		LOG OF TES	ST	PIT	T	P-{	5		S	heet	1 of	1
PROJECT	г NAME 0 Sain	t Felix Street Site	PROJE	ECT NUM	IBER	1	0084	42301	DATE		4/20/20	)21
LOCATIO	N 0 Sain	t Felix Street, Brooklyn, NY	ELEVA	TION					46	6 33-ft	NAVD	88
EXCAVA		NTRACTOR Environmental Services Corp	DEPTH	ł		0 ft		WATER LE	VEL - First	WATER	R LEVEL - C	
EQUIPME			FORE	IAN		<u>011</u>	<b>D</b>		LANGAN PERSO			
ВО	DCal E					SAMI	Pare			ES	siner Arti	nur
Symbol	ELEV (feet)	DESCRIPTION		Dept Scal	th le	Number	Type		REMA	ARKS		
	+46.3	Brown fine SAND, some silt, trace fine gravel, concrete, and bri	ck	E	-							
		(dry) [FILL]		E				5-ft X 3.5	-ft Test Pit Con	npleted		
				_ 1	_				adinga ahaya (	0 0 0000	ovidono	o of
				L				visual or o	olfactory impact	ts, or ev	, evidence vidence o	fany
				2	_			undergrou	und storage tan	iks were	e observe	ed.
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LA	N	GAN		15								
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		LOG OF TES	ST	PIT 1	۲P-	6		S	heet î	l of	1
PROJECT	<sup>-</sup> NAME ) Sain	t Felix Street Site	PROJE	CT NUMBER	۲.	10084	42301	DATE	4	/20/202	21
LOCATION	v ) Sain	t Felix Street, Brooklyn, NY	ELEVA	TION				46	6.33-ft N	AVD8	8
EXCAVAT AA	TON CO	NTRACTOR Environmental Services Corp.	DEPTH	I	8	ft	WATER LE	VEL - First	WATER LE	EVEL - Cor	mpletio
EQUIPME	NT bcat F	35i Mini Excavator	FORE	IAN	Davh	i Par	checo	LANGAN PERSO	DNNEL Fsth	er Arthi	ur
				Donth	SAI	MPLE					
Symbol	(feet)	DESCRIPTION		Scale	lumbe	Type		REMA	ARKS		
	+46.3	Brown fine SAND, some silt, trace fine gravel, concrete, and bri	ck	— 0 —							
		(diy) [FILL]			-		4.5-ft X 3	.5-ft Test Pit C	ompleted		
				- 1 -	1		No PID re	adings above (	).0 ppm, e	vidence	of
							visual or o	olfactory impact	ts, or evide	ence of a	any
				- 2 -			undergrot	and storage tail		bseiveu.	•
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				- 3 -	1						
				- 4 -	1						
					1						
				- 6 -	1						
				- 7 -							
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, XXXX	+38.3			- 8 -	-						
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	N	GAN									

		<u>51</u>		<b>P</b> -	<u> </u>			Sheet	1 OT	1
PROJECT NAME 130 Sain	nt Felix Street Site	PROJE	CT NUMBER	۲	10084	12301	DATE		4/20/20	)21
LOCATION 130 Sain	nt Felix Street, Brooklyn. NY	ELEVA	TION		-		. 4	5.98-ft	NAVD	88
	DNTRACTOR Environmental Services Corp	DEPTH		0.4	F#	WATER LE	VEL - First	WATER	LEVEL - C	
EQUIPMENT		FOREM	IAN	<u>01</u>						
Bodcat E				Dayb SAM	N Paro MPLE	checo		Est	her Arth	nur
Symbol ELEV (feet)	DESCRIPTION		Depth Scale	Number	Type		REM	ARKS		
+46.0	Brown fine SAND, some silt, trace fine gravel, concrete, and br (dry) [FILL]	ick				5-ft X 5-ft No PID re visual or o undergrou	Test Pit Comp adings above olfactory impac und storage tar	pleted 0.0 ppm, tts, or evi nks were	evidenc dence of observe	e of f any d.



r	Draiaat					Draig at Na		
	Project	130 Saint Felix St	reet Site		ľ	Project No.	100842	2301
	Location	130 Saint Felix St	reet, Brooklyn, NY		E	Elevation And Datum	41.04 NAV	/D88
L L	Drilling Agency	AARCO Environn	nental Services Corp		]	Date Started 4/23/2021	Date Finished 4/24/2	2021
	Drilling Equipmen	t Geoprobe 8140L	C Sonic Drill Rig		[	Driller	Tommy Se	ickel
	Size And Type of I	Bit	5			nspector	,	
	Method of Installat	4in Carbide Core	Bit				Dayana A	Arrue
- LANGAN_WELL_CONS	AARCO drillec 2-inch diamete bentontine sea installed and s	d 4-inch stainless steel er PVC screen was inst al was installed above th secured with concrete.	casing to a depth of 50' bgs alled from 37-47' bgs. No. 2 ne sand, and the remainder	and backfil 2 Sand was of the borel	led with No. 2 S backfilled to app hole was backfill	and to 47' bgs. 10-feet of So proximately 2-feet above the led with sand and non-impac	chedule-40, 0.020-inch sk top of the screen. A 2-foc cted drilling cuttings. Manl	otted t thick nole
UIL. LUY								
- הקר	Method of Well De	evelopment						
120214.30.01 FM	LMW-1 was d pump until the	leveloped using surge p water became clear.	umping techniques across	he well scre	een in 2- to 3-foo	ot increments. After surging	the well was purged via a	a whale
0/2	Type of Casing		Diameter 2-inch	Type of B	ackfill Material			
ב שוו	Type of Screen	+01 VO	Diameter	Type of S	eal Material			
	Schedule-4	40 PVC	2-inch	Bent	onite			
	Borehole Diamete	۲	45.1	Type of Fi	ilter Material			
ц Ц	Tap of Casing	Floyetian	4.5-INCh	#2 Sa	and			
	l op of Casing	41.75'	0.71' ags	\ \	Vell Details	Soil / Rock	Classification	Depth (ft)
	l op of Seal	Elevation 8.04'	33' bgs		<u>∏</u> ⊈	FILL		
AL/GINI	Top of Filter	Elevation 6.04'	Depth 35' bgs			SAND		
	Top of Screen	Elevation 4.04'	Depth 37' bgs					
DNI NVI	Bottom of Filter	Elevation -8.96'	Depth 50' bas					
	Bottom of Well	Elevation 8 Q6'	Depth		-Non-impacted	Ŀ		
	Screen Length	-0.30	Slot Size		and #2 Sand	js 		
		(Measured from th	ne Top of Casing)		9			
211	Elevation 2.25'	39.5'	Date 5/4/2021					
1004230	Elevation	DTW	Date					33
	Elevation	DTW	Date		—Bentonite Sea	al		35
I A PAR	Elevation	DTW	Date		#2 Sond			
	Elevation	DTW	Date		Screen			
WLANGAN.	Elevation	DTW	Date		#2 Sand			47 50



r	Project				Droi -	et No		
	FIUJECL	130 Saint Felix St	reet Site		Proje	GLINU.	100842	301
	Location	130 Saint Felix St	reet, Brooklyn, NY		Eleva	tion And Datum	42.99 NAV	D88
-	Drilling Agency		ental Services Corn		Date	Started 4/26/2021	Date Finished 4/26/2	021
	Drilling Equipment	Gooprobe 81401			Drille	r	Tommy Soi	
	Size And Type of E	Bit			Inspe	ctor	Tominy Ser	CKEI
	Mathad of Installat	4in Carbide Core	Bit				Andrew Q	uinn
UII. LUU - LAINGAIN_WELL_CUINS	AARCO drilled 2-inch diamete bentontine sea installed and s	4 4-inch stainless steel c 4 4-inch stainless steel c r PVC screen was inst al was installed above th ecured with concrete.	asing to a depth of 50' bgs alled from 39-49' bgs. No. e sand, and the remainder	and backfilled with 2 Sand was backfill of the borehole was	No. 2 Sand d to approxii backfilled w	to 49' bgs. 10-feet of Sched mately 2-feet above the top <i>i</i> th sand and non-impacted	lule-40, 0.020-inch slo of the screen. A 2-fool drilling cuttings. Manh	tted : thick ole
······································	Method of Well De LMW-2 was de pump until the Type of Casing Schedule-4	evelopment eveloped using surge pu water became clear. 10 PVC	imping techniques across Diameter 2-inch	the well screen in 2 Type of Backfill M Bentonite	to 3-foot ind	crements. After surging, the	well was purged via a	whale
5 1	Type of Screen	101 00	Diameter	Type of Seal Mate	ial			
	Schedule-4	10 PVC	2-inch	Bentonite				
	Borehole Diameter	r .	4.5-inch	Type of Filter Mate	rial			
- 007100	Top of Casing	Elevation 42.73'	Depth 0.26' bgs	Well De	tails	Soil / Rock Cla	ssification	Depth
	Top of Seal	Elevation 7.99'	Depth 35' bgs			FILL		0.26
	Top of Filter	Elevation 5.99'	Depth 37' bgs			SAND		
	Top of Screen	Elevation 3.99'	Depth <b>39' bgs</b>					
	Bottom of Filter	Elevation -7.01'	Depth 50' bgs					
	Bottom of Well	Elevation -8.96'	Depth 50' bgs	Reference in the second secon	mpacted			
	Screen Length	10.0'	Slot Size 0.020	C C and a	g cuttings 2 Sand			
		GROUNDWATER (Measured from th	ELEVATIONS (ft) e Top of Casing)					
	Elevation 2.63'	DTW 40.10'	Date 5/4/2021					
0740001	Elevation	DTW	Date					
	Elevation	DTW	Date	Bent	onite Seal			35 37
	Elevation	DTW	Date					
SUNUCY.	Elevation	DTW	Date	#2 S	and en			
	Elevation	DTW	Date		and			49 50



	<u> </u>				1			
	Project	130 Saint Felix St	reet Site		Project	t No.	100842	301
	Location	130 Saint Felix St	reet, Brooklyn, NY		Elevati	on And Datum	45.22 NAVI	D88
¥	Drilling Agency	AARCO Environm	ental Services Corp		Date S	tarted 4/23/2021	Date Finished 4/24/2	021
	Drilling Equipment	Geoprobe 8140I (	Sonic Drill Rig		Driller		I Tommy Sei	ckel
NO	Size And Type of E	Bit			Inspect	tor		
IRUCI	Method of Installat	4in Carbide Core	Bit				Dayana Ai	rue
DIT: LOG - LANGAN_WELL_CONS	AARCO drillec 2-inch diamete bentontine sea installed and s	4-inch stainless steel c er PVC screen was insta al was installed above th ecured with concrete.	asing to a depth of 50' bgs alled from 39-49' bgs. No. 2 e sand, and the remainder	and backfilled with No. 2 2 Sand was backfilled to a of the borehole was back	Sand to approxim filled wit	o 49' bgs. 10-foot of Sched ately 2-feet above the top th sand and non-impacted	lule-40, 0.020-inch slot of the screen. A 2-foot drilling cuttings. Manho	ted thick ole
8/9/2021 4:30:04 P.M Repo	Method of Well De LMW-3 was d pump until the	evelopment eveloped using surge pu water became clear.	Imping techniques across	the well screen in 2- to 3-	foot incr	rements. After surging, the	well was purged via a	whale
L 46	Schedule-4	10 PVC	2-inch	Bentonite				
	Type of Screen Schedule-4	40 PVC	Diameter 2-inch	Type of Seal Material Bentonite				
EKF	Borehole Diameter	r		Type of Filter Material				
	T (0)		4.5-inch	#2 Sand				1
0084230	Top of Casing	45.00'	0.22' bgs	Well Details		Soil / Rock Cla	ssification	Depth (ft)
LUGS/1	Top of Seal	Elevation 10.22'	Depth 35' bgs			FILL		0.22
AL/GINI	Top of Filter	Elevation 8.22'	Depth 37' bgs					
NMEN I	Top of Screen	Elevation 6.22'	Depth <b>39' bgs</b>					
ENVIRO	Bottom of Filter	Elevation -4.78'	Depth 50' bgs			SAND		
	Bottom of Well	Elevation -4.78'	Depth 50' bgs	- SQL SQL SCL SCC SCL SQL SQL SQL SQL SQL SQL SQL SQL SQL SQL SQL SQL SQL SQL	ted			
	Screen Length	10.0'	Slot Size 0.020	drilling cutt	ings Id			
		GROUNDWATER (Measured from the	ELEVATIONS (ft)					
Ú NHC N	Elevation	DTW	Date					
0842301	Z.43 Elevation	42.57 DTW	Date			GRAVEL		
AI A3/10	Elevation	DTW	Date		Seal	SAND		35
HAR/D/	Elevation	DTW	Date		.541	GRAVEL		3/
						SAND		
N.COM	Elevation	DTW	Date	#2 Sand				
<b>MLANGAN</b>	Elevation	DTW	Date	₩				49 50



1	<b>D</b> : (							
	Project	130 Saint Felix Str	eet Site		Proje	ct NO.	100842	301
	Location	130 Saint Felix Str	eet, Brooklyn, NY		Eleva	tion And Datum	45.98 NAVI	D88
X	Drilling Agency		antal San <i>i</i> icas Corn		Date	Started	Date Finished	021
IMMAP	Drilling Equipment	t	ental Services Corp	·	Drille	4/23/2021	4/24/2	021
	Size And Type of F	Geoprobe 8140L0	Sonic Drill Rig		Inspe	ctor	Tommy Seid	ckel
RUCIE		4in Carbide Core	Bit				Dayana Ar	rue
DIT: LOG - LANGAN_WELL_CONS	AARCO drillec 2-inch diamete bentontine sea installed and s	d 4-inch stainless steel c er PVC screen was insta al was installed above the secured with concrete.	asing to a depth of 50' bgs lled from 39-49' bgs. No. 2 e sand, and the remainder	and backfilled v 2 Sand was back of the borehole	vith No. 2 Sand (filled to approxin was backfilled w	to 49' bgs. 10-foot of Sched nately 2-feet above the top ith sand and non-impacted	lule-40, 0.020-inch slot of the screen. A 2-foot drilling cuttings. Manho	ted thick ole
8/9/2021 4:30:00 P.M Rep	Method of Well De LMW-4 was d pump until the Type of Casing	evelopment eveloped using surge pu water became clear.	Diameter	the well screen i	n 2- to 3-foot ind	crements. After surging, the	well was purged via a	whale
GPJ.	Schedule-4	10 PVC	2-INCN Diameter	Type of Seal N	e Aaterial			
L'RINE	Schedule-4	40 PVC	2-inch	Bentonit	e			
=N IEK	Borehole Diamete	r 4	1.5-inch	Type of Filter I #2 Sand	Vaterial			
0842301_	Top of Casing	Elevation 45.64'	Depth 0.34' bgs	Wel	Details	Soil / Rock Cla	ssification	Depth
-063/10	Top of Seal	Elevation 10.98'	Depth 35' bgs			FILL		0.34
AL/GINII	Top of Filter	Elevation 8.98'	Depth 37' bgs					
CONMENT	Top of Screen	Elevation 6.98'	Depth 39' bgs					
=\ENVIR	Bottom of Filter	-4.02'	50' bgs			SAND		
SCIPLIN	Bottom of Well	Elevation -4.02'	Depth 50' bgs		Ion-impacted			
	Screen Length	10.0'	Slot Size 0.020		rilling cuttings nd #2 Sand	GRAVEL SAND		
		GROUNDWATER (Measured from the	ELEVATIONS (ft) Top of Casing)					
J1/PR(	Elevation 2.44'	DTW 43.2'	Date 5/4/2021			GRAVEL		
10084230	Elevation	DTW	Date			GRAVEL		
VDAI A3	Elevation	DTW	Date		Sentonite Seal	SAND		35 37
I A/PAK	Elevation	DTW	Date			GRAVEL SAND		
I.COM/DA	Elevation	DTW	Date		2 Sand Screen			
<b>WLANGAN</b>	Elevation	DTW	Date		2 Sand			49 50



r	Drojaat				15.7	at Na		
	Project	130 Saint Felix St	reet Site		Projec	CT NO.	100842	301
	Location	130 Saint Felix St	reet, Brooklyn, NY		Eleva	tion And Datum	44.68 NAVI	D88
Ē	Drilling Agency	AARCO Environm	nental Services Corp		Date	Started 4/26/2021	Date Finished 4/26/2	021
	Drilling Equipment	Geoprobe 81401	C Sonic Drill Rig		Driller	r	I Tommy Sei	ckel
	Size And Type of E	Bit			Inspe	ctor		
	Mathad of Installati	4in Carbide Core	Bit				Andrew Qu	uinn
OIL: LOG - LANGAN_WELL_CONS	AARCO drilled 2-inch diamete bentontine sea installed and s	4-inch stainless steel of 4-PVC screen was insta was installed above th ecured with concrete.	asing to a depth of 50' bgs alled from 39-49' bgs. No. i e sand, and the remainder	s and backfilled wit 2 Sand was backfi of the borehole w	h No. 2 Sand i lled to approxir as backfilled w	to 49' bgs. 10-foot of Sched nately 2-feet above the top <i>i</i> th sand and non-impacted	ule-40, 0.020-inch slot of the screen. A 2-foot drilling cuttings. Manho	ted thick ole
1 8/8/2021 4.30.01 FIM Nep	Method of Well De LMW-5 was de pump until the Type of Casing Schedule-4	velopment eveloped using surge pi water became clear.	Diameter 2-inch	the well screen in	2- to 3-foot inc Material	crements. After surging, the	well was purged via a	whale
с Г Ј	Type of Screen		Diameter	Type of Seal Ma	terial			
2222	Schedule-4	IO PVC	2-inch	Bentonite				
	Borehole Diameter	r	4.5-inch	Type of Filter Ma #2 Sand	aterial			
10642301	Top of Casing	Elevation 44.44'	Depth 0.24' bgs	Well [	Details	Soil / Rock Cla	ssification	Depth (ft)
	Top of Seal	Elevation 9.68'	Depth 35' bgs			FILL		0.24
F/GINI	Top of Filter	Elevation 7.68'	Depth 37' bgs					
	Top of Screen	Elevation 5.68'	Depth <b>39' bgs</b>			NATIVE SAND		
	Bottom of Filter	Elevation -5.32'	Depth 50' bgs					
	Bottom of Well	Elevation -5.32'	Depth 50' bgs		n-impacted			
	Screen Length	10.0'	Slot Size 0.020	dril	ling cuttings 1 #2 Sand			
		GROUNDWATER (Measured from th	ELEVATIONS (ft) e Top of Casing)					
	Elevation 2.34'	dtw 42.10'	Date 5/4/2021					
1000423	Elevation	DTW	Date					
IDA 1 A3	Elevation	DTW	Date		ntonite Seal			35 37
IAFAR	Elevation	DTW	Date					
	Elevation	DTW	Date		Sand reen			
<b>WLANGAN</b>	Elevation	DTW	Date		Sand			49 50

### **APPENDIX C**

### **Groundwater Sampling Field Logs**

LANGAN

				LOW FLOW	/ SAMPLING FIEL	D PARAMETER MEAS	SUREMENTS					
Projec	t: 130 Saint Felix		Site Location:	Brooklyn, NY		Well N	No: LMW-1		Date:	5/4/2021		
Job Numbe	r: 100842301		Weather:	70, Partly Cloudy	r	Sampler	(s): Seyana Simpson					
Initial DTW (ft	): 39.50		Well Depth (ft):	49		Pump Depth (	<b>ft)</b> : 45					
Background PID (ppm	): 0.0		Well PID (ppb):	80		Screen Interval (	ft): 37-47					
Water Quality Mete	r: Horiba U-52	v	Vater Quality Meter ID:	N/A		Well Diameter (i	<b>n):</b> 2					
									1		1	1
719.45	IEMP.	рн	ORP	COND.	Turbidity	00	DIW	ů,				
LINE	-C	(std. Units)	(mV)	(mS/cm)	(NTU)	(mg/L)	(ft)	(mL/m)	COLOR?	ODOR?	NOTES	STABILIZED?
13:07		↓∔					39.50	250	Ļ—	÷	Begin Purging	
13:12	19.41	7.47	-509	0.865	5.9	0.64	39.50	200	<u> </u>	ļ <u>—</u>		
13:17	19.55	7.38	-540	0.867	2.5	0.11	39.55	200	<u> </u>			
13:22	19.58	7.39	-550	0.866	1.9	0.00	39.55	200	<u> </u>			N
13:27	19.66	7.42	-550	0.869	0.8	0.00	39.55	200				Ν
13:32	19.67	7.43	-549	0.870	0.0	0.00	39.55	200	_	-		Ν
13:37	19.67	7.42	-540	0.872	0.0	0.54	39.55	200	—			Ν
13:42	19.69	7.44	-521	0.873	0.0	0.00	39.55	200				Ν
13:47	19.69	7.45	-504	0.873	0.0	0.00	39.55	200				Ν
13.52	19.7	7 44	-467	0.873	0.0	0.00	39 55	200	<u>+</u>			N
13:57	19.7	7 44	-428	0.873	0.0	0.00	39.55	200	†	†	†	N
14:02	10.7	7.44	420	0.070	0.0	0.00	29.55	200	+	+		N
14:02	10.7	7.45	400	0.073	0.0	0.00	30.55 20 FF	200	+			N
14.07	19.7	7.40	-409	0.073	0.0	0.06	39.00	200				IN
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		++							<u>+</u>	*	1	1
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown		<u>†</u>	<u> </u>	1	†
		7 ° P	, -							•		
Notes:	055 LMW-1 co	llected at 14:10										

				LOW FLOW	SAMPLING FIELD	PARAMETER MEAS	SUREMENTS					
Project	: 130 Saint Felix	Street	Site Location:	Brooklyn, NY		Well [	No: LMW - 2		Date:	5/4/2021		
Job Number	: 100842301		Weather:	70, Partly Cloudy		Sampler	(s): Seyana Simpson			-, , -		
Initial DTW (ft)	: 40.10		Well Depth (ft):	49		Pump Depth (	<b>ft):</b> 45					
Background PID (ppm)	: 0.0		Well PID (ppb):	24		Screen Interval (	ft): 39-49					
Water Quality Meter	: Horiba U-52	W	ater Quality Meter ID:	Horiba U-52		Well Diameter (i	in): 2					
	TEMP		OPP	COND	Turbidity	D0	DTW/	0				I
TIME	I EIVIP.	рп (otd Unite)	(m)/)		(NITLI)	(ma/l)	(ft)	(mL(m)	COL 082	00083	NOTES	
10.05	C	(sta. Units)	(mv)	(ms/cm)	(NTO)	(mg/L)	(ft)	(mL/m)	COLOR?	ODOR	NOTES	STADILIZED
10:35							40.10	200			Begin Purging	
10:40	18.06	/./8	-616	0.524	141.0	0.50	41.24	200				i
10:45	18.21	7.71	-596	0.520	43.7	0.14	42.30	200		—		
10:50	17.99	7.75	-561	0.517	26.3	0.29	43.05	200	<u> </u>			N
10:55	18.33	7.71	-577	0.519	56.2	0.01	43.67	200				N
11:00	18.26	7.69	-558	0.512	17.8	0.09	43.89	200				N
11:05	18.38	7.75	-551	0.504	13.1	1.06	44.20	200	_			N
11:10	18.24	7.58	-498	0.498	4.7	0.56	44.65	200	-	—		Ν
11:15	18.26	7.79	-437	0.496	2.0	2.11	45.02	200				Ν
11:20	18.23	7.79	-442	0.494	1.3	2.10	45.50	200	_			Ν
11:25	18.22	7.78	-436	0.492	1.1	2.09	45.60	200	_			N
11:30	18.26	7 77	-427	0 490	0.8	1 26	45.62	200	†			N
11:35	18.23	7 79	-/15	0.487	0.6	1.20	45.66	200	+			N
11:40	18.22	7 79	-/11/	0.485	1.2	1.74	45.67	200	+			N
11.40	10.22	1	-414	0.400	1.2	1.00	43.07	200	+			
		++-							+			
		++-			<u> </u>				+			<u></u>
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	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/-3%	+/- 10 NTU	+/- 10%	<0.3' drawdown		<u>+</u>			<u> </u>
	•	•							•			
Notes:												

Collected 054\_LMW-2 at 12:01



				LOW FLOW	SAMPLING FIEL	D PARAMETER MEASUF	REMENTS					
Project:	130 Saint Felix S	Street	Site Location:	Brooklyn, NY		Well No:	LMW-3		Date:	5/4/2021		
Job Number:	100842301		Weather:	70, Partly Cloudy		Sampler(s):	Sevena Simpson			-, .,		
Initial DTW (ft):	42.57		Well Depth (ft):	49		Pump Depth (ft):	45					
Background PID (ppm):	0.0		Well PID (ppb):	25		Screen Interval (ft):	39-49					
Water Quality Meter:	Horiba U-52	v	Vater Quality Meter ID:	N/A		Well Diameter (in):	2					
	TEMP.	рН	ORP	COND.	Turbidity	DO	DTW	Q				
TIME	°C	(std. Units)	(mV)	(mS/cm)	(NTU)	(mg/L)	(ft)	(mL/m)	COLOR?	ODOR?	NOTES	STABILIZED?
8:12							42.57	200	—		Begin Purging	
8:17	16.64	7.44	-472	0.689	8.8	1.29	42.59	200	—			—
8:22	16.65	7.48	-445	0.690	6.3	1.39	42.60	200	—	—		
8:27	16.51	7.47	-422	0.693	6.4	3.42	42.60	200	—			Ν
8:32	16.75	7.49	-442	0.691	36.9	0.97	42.60	200				N
8:37	16.64	7.49	-472	0.692	35.4	0.80	42.60	200				N
8:42	16.80	7.48	-331	0.690	43	1 55	42 59	200				N
8:47	16.86	7.40	-280	0.600	4.0	1.00	42.60	200				N
0.52	16.00	7.40	-200	0.001	4.5	2.49	42.00	200				N
0.52	10.07	7.49	-232	0.09	2.0	2.40	42.00	200				IN N
8:57	16.87	7.50	-216	0.69	Z. 1	2.74	42.59	200				N
9:02	16.87	/.49	-193	0.69	1.9	3.56	42.60	200				N
9:07	16.88	7.49	-171	0.69	1.4	3.14	42.60	200	—			N
9:12	16.89	7.48	-177	0.69	1.3	3.56	42.60	200				N
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	+/-3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown					<u>i</u>
Notes:												

Collected 053\_LMW-3 at 9:17



				LOW FLOW	SAMPLING FIEL	D PARAMETER MEASU	REMENTS					
Project:	130 Saint Felix S	Street	Site Location:	Brooklyn, NY		Well No:	LMW-4		Date:	5/3/2021		
Job Number:	100842301		Weather:	Partly cloudy		Sampler(s):	Molly Mattern					
Initial DTW (ft):	43.20		Well Depth (ft):	49		Pump Depth (ft):	45					
Background PID (ppm):	0.0		Well PID (ppm):	0.0		Screen Interval (ft):	39-49					
Water Quality Meter:	Horiba U-52	N 1	Vater Quality Meter ID:	N/A		Well Diameter (in):	2					
									1	1	1	1
	IEMP.	рн	ORP	COND.	lurbidity	DO	DIW	ů ,		00000	10750	
TIME	۰.	(std. Units)	(mV)	(mS/cm)	(NTU)	(mg/L)	(ft)	(mL/m)	COLOR?	ODOR?	NOTES	STABILIZED?
14:26	16.8	6.61	-175	0.75	13.50	0.99	43.20	200			Begin Purging	
14:31	16.18	7.39	-336	0.768	8.2	0.16	43.26	200				
14:36	16.05	7.51	-372	0.778	5.7	0.00	43.30	200				
14:41	15.99	7.55	-383	0.786	4.2	0.00	43.26	200				Ν
14:46	15.92	7.58	-386	0.785	3.5	0.01	43.28	200				Ν
14:51	15.86	7.60	-373	0.785	3.3	0.19	43.29	200	-			Ν
14:56	15.85	7.60	-359	0.785	3.3	0.29	43.28	200			—	N
15:01	15.82	7.61	-333	0.784	3.0	0.46	43.28	200				N
15:06	15.81	7.60	-297	0.784	2.5	0.65	43.28	200				N
15.11	15.81	7.61	-264	0.783	21	0.79	43.28	200				N
15:16	15 79	7.61	-240	0.783	17	0.89	43.28	200	+	+	+	N
15:21	15.70	7.61	240	0.700	1.7	0.00	42.20	200	†			N
15.21	15.77	7.01	-222	0.702	1.7	1.00	43.20	200	+			IN NI
15.20	15.76	7.02	-204	0.780	1.5	1.00	43.20	200				IN
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		]			]		[]		]			
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/-3%	+/- 10 NTU	+/- 10%	<0.3' drawdown					

Notes:

Collected 048\_LMW-4 at 15:37 and 049\_DUP-1 at 16:13



				LOW FLOW	/ SAMPLING FIEL	D PARAMETER MEASU	JREMENTS					
Proiect:	130 Saint Felix S	Street	Site Location:	Brooklyn, NY		Well No	: LMW-5		Date:	5/3/2021		
Job Number:	100842301		Weather:	60, Rain, Overca	st	Sampler(s	): MM					
Initial DTW (ft):	42.10		Well Depth (ft):	46.5		Pump Depth (ft	): 45.5					
Background PID (ppm):	0.00		Well PID (ppm):	0.0		Screen Interval (ft	): 39-49					
Water Quality Meter:	Horiba U-52	v	Vater Quality Meter ID:	N/A		Well Diameter (in	): 2					
							-		-	-	-	
	TEMP.	рН	ORP	COND.	Turbidity	DO	DTW	٥				
TIME	°C	(std. Units)	(mV)	(mS/cm)	(NTU)	(mg/L)	(ft)	(mL/m)	COLOR?	ODOR?	NOTES	STABILIZED?
13:45					_		42.10	200			Begin Purging	
13:50	16.46	6.87	-590	0.517	37.8	0.81	42.15	200			—	
13:55	16.27	6.93	-592	0.542	29.6	0.24	42.15	200	—		—	
14:00	16.20	6.87	-586	0.566	27.7	0.05	42.15	200	_		—	N
14:05	16.11	6.75	-579	0.587	22.3	0.07	42.15	200	_			Ν
14:10	16.08	6.67	-573	0.603	18.6	0.08	42.15	200				N
14:15	16.05	6.62	-570	0.615	14.8	0.05	42.15	200			—	N
14:20	16.07	6.62	-569	0.620	15.4	0.05	42.15	200			+ 	N
14:25	16.05	6.58	-565	0.624	14.2	0.05	42.15	200				Y
	+								<u> </u>	+	+ 	
	+ !	4 1 1			<u> </u>	+ 	-+		<b>∤</b>	∔ ¦	╊ ╏	
	+	<u> </u>				<u> </u>     			†			
	+	<u> </u>			<u> </u>	¦			†	∔	<b>+</b> 	
	+	<u> </u>				<u> </u>			†		<u>+</u>	
	+	<u> </u>			1	¦	-†		†		<u>.</u>	
	+	{   				<u>+</u>			<u>+</u>		<u> </u>	
	†	<u> </u>					-†		†	<u></u>		
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	+					   						
	+				<b></b>	<u>+</u>			†		<u>+</u>	
	+ 	<u> </u>			<del> </del>	+   			†	+ 	+   	
	†				<b></b>	<u>+</u>			1		+	
	†	<u> </u>			<u> </u>	+   			†	 	+   	
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/-3%	+/- 10 NTU	+/- 10%	<0.3' drawdown		<u>+</u>	+ !	+ 	
	·				•		·		•			

Notes:

Collected 047\_LMW-5 at 14:30 Extra volume collected for MS/MSD



LOW FLOW SAMPLING FIELD PARAMETER MEASUREMENTS												
Proiect:	Project: 130 Saint Felix Street Site Location:			Brooklyn, NY Well No: MW-11 Date					5/4/2021			
Job Number:	er: 100842301 Weather:		60, Rain, Overca	st	Sampler	(s): MM			-, , -			
Initial DTW (ft):	: 41.65 Well Depth (ft):		49		Pump Depth (	<b>ft):</b> 45						
Background PID (ppm):	0.0		Well PID (ppb):	1 ppb		Screen Interval (	ft): 39-59					
Water Quality Meter:         Horiba U-52         Water Quality Meter ID:         N/A         Well Diameter (in):         2												
	75140		000		-		5714		1	1		
TIME	I EIVIP.	pH	ORP	COND.	lurbidity	DO (	DIW	U ()	001.003	00000	NOTES	
TIVE	U.	(sta. Units)	(mv)	(mS/cm)	(NTU)	(mg/L)	(π)	(mL/m)	COLOR?	UDUR?	NUTES	STABILIZED?
15:19	-						41.65	200			Begin Purging	
15:24	17.69	7.08	326	0.553	175	18.31	41.65	200				
15:29	17.71	7.07	327	0.553	164	18.36	41.65	200				
15:34	17.69	7.09	329	0.552	134	18.12	41.65	200	Ļ			N
15:39	17.78	7.08	333	0.551	98.8	17.49	41.65	200				N
15:44	17.81	7.02	338	0.550	96.2	20.54	41.65	200	<u> </u>			N
15:49	17.83	7.12	340	0.549	87.2	16.66	41.65	200				N
15:54	17.81	7.09	344	0.550	72.9	16.36	41.65	200			—	N
15:59	17.65	7.12	346	0.55	94.0	15.75	41.65	200	_			N
16:04	17.77	7.10	348	0.55	63.1	15.32	4165	200				Ν
16:09	17.76	7.09	349	0.55	62.0	15.28	41.65	200				N
16:14	17.83	7.07	352	0.55	46.0	14.62	41.65	200				N
16:19	17.84	7.08	355	0.55	42.0	14.23	41.65	200				N
		††			† <u>†</u>				<u>+</u>			
	<u> </u>	††			<u>ii</u> -		††		†			
	}	++·			<u> </u>				<del> </del>			
		††·			<u> </u>				<u>+</u>			
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	<b> </b>	↓↓.			ļļ.				Ļ			
	 				 				<u> </u>		 	
	+/- 3%	+/- 0.1 pH	+/- 10 mV	+/- 3%	+/- 10 NTU	+/- 10%	<0.3' drawdown		l			
A. 1												
√otes:												

Collected 056\_MW-11 at 16:20



### **APPENDIX D**

**Soil Vapor Sampling Field Logs** 

LANGAN

Site: 130 St. Felix St.

Samplers: MM Date: 5-4-21

Sample #	045_LSV-1	046_DUP-1	043_LSV-2A	044_LSV-2B	035_LSV-3A		
Location		045_LSV-1					
Summa Canister ID	3394	2103	2603	3131	2812		
Flow Controller ID	1453	929	1528	2101	109		
Sample Depth (b.g.s.)	5'	5'	5'	20.5'	5'		
Additional Tubing Added	NO/ How much ~2'	NO/ How much ~2'	NO/ How much ~2'	NO/ How much ~2'	NO/ How much ~2'		
Purge Time (Start)	8:50	8:50	8:35	8:43	7:35		
Purge Time (Stop)	8:55	8:55	8:40	8:48	7:40		
Total Purge Time (min)	5	5	5	5	5		
Purge Volume	1L	1L	1 L	1 L	1L		
PID Test of Purge Air	73 ppb	73 ppb	86 ppb	101 ppb	392 ppb		
Initial Tracer Gas Results in sampling line	0%	0%	0%	0%	0%		
Initial Tracer Gas Results in shroud	96.50%	96.50%	98.60%	94.70%	95.70%		
Pressure Gauge - before sampling	-29.54	-29.12	-29.69	-29.6	-29.86		
Sample Time (Start)	9:00	9:00	9:03	9:04	9:12		
Sample Time (Stop)	11:03	11:03	11:06	11:05	12:00		
Total Sample Time (min)	123	123	123	121	168		
Pressure Gauge - after sampling	-3	-3	-3.2	-3.3	-3.5		
Sample Volume	6 L	6 L	6 L	6 L	6 L		
Canister Pressure Went to Ambient Pressure?	YES NO	YES	YES NO	YES NO	YES		
Final Tracer Gas Results in sampling line	-	-					
Final Tracer Gas Results in shroud							
Associated Ambient Air	030_Ambient-1						
vveather 24 hours before and during sampling	60s, cloudy, rain						
General Comments							



Site: 130 Saint Felix Street

Samplers: MM Date: 5/4/21

Cananda #							
Sample #	036_LSV-3B	041_LSV-4A	042_LSV-4B	033_LSV-5A	034_LSV-5B		
Location							
Summa Canister ID	2121	1532	739	3299	2934		
Flow Controller ID	1947	556	387	1016	770		
Sample Depth (b.g.s.)	20.5'	5'	20.5'	5'	20.5'		
	NO/	NO/	NO/	NO/	NO/		
Additional Tubing Added	YES How much ~2'	YES How much ~2'	YES How much ~2'	YES How much ~2'	YES How much ~2'		
Purge Time (Start)	7:43	8:15	8:23	7:15	7:23		
Purge Time (Stop)	7:48	8:20	8:28	7:20	7:28		
Total Purge Time (min)	5	5	5	5	5		
Purge Volume	1L	1 L	1 L	1L	1L		
PID Test of Purge Air	1332 ppb	305 ppb	280 ppb	125 ppb	251 ppb		
Initial Tracer Gas Results in sampling line	0%	0%	0%	0%	0%		
Initial Tracer Gas Results in shroud	94.40%	97.20%	95.40%	93.20%	92.80%		
Pressure Gauge - before sampling	-29.54	-29.81	-29.78	-29.66	-29.64		
Sample Time (Start)	9:11	9:05	9:06	9:13	9:14		
Sample Time (Stop)	11:22	11:13	11:24	11:26	11:25		
Total Sample Time (min)	131	128	138	133	131		
Pressure Gauge - after sampling	-4.3	-3.5	-3.5	-3	-2		
Sample Volume	6 L	6 L	6 L	6 L	6 L		
Canister Pressure Went to Ambient Pressure?	YES	YES	YES NO	YES /	YES /		
Final Tracer Gas Results in sampling line							
Final Tracer Gas Results in shroud							
Associated Ambient Air Sample Number	030_Ambient-1						
Weather 24 hours before and during sampling	60s, cloudy, rain						
General Comments							

Site: 130 St. Felix St.

Samplers: MM Date: 5-4-21

Sample #	031_LSV-6A	032_LSV-6B	037_LSV-7A	038_LSV-7B	039_LSV-8A	
Location						
Summa Canister ID	2560	970	1703	3333	2486	
Flow Controller ID	623	1396	1794	1132	1921	
Sample Depth (b.g.s.)	5'	20.5'	5'	20.5'	5'	
Additional Tubing Added	NO/ YES How much ~2'	NO/ How much ~2'	NO/ YES- How much ~2'	NO/ YES How much ~2'	NO/ YES- How much ~2'	
Purge Time (Start)	6:55	7:05	7:52	7:56	8:05	
Purge Time (Stop)	7:00	7:10	7:57	8:01	8:10	
Total Purge Time (min)	5	5	5	5	5	
Purge Volume	1 L	1 L	1L	1 L	1 L	
PID Test of Purge Air	324 ppb	503 ppb	150 ppb	175 ppb	104 ppb	
Initial Tracer Gas Results in sampling line	0%	0%	0%	0%	0%	
Initial Tracer Gas Results in shroud	92.80%	95.70%	93.00%	93.70%	96.40%	
Pressure Gauge - before sampling	-30.00	-29.32	-29.56	-30.00	-29.60	
Sample Time (Start)	9:16	9:15	9:10	9:09	9:08	
Sample Time (Stop)	11:18	11:25	10:50	11:14	11:17	
Total Sample Time (min)	122	130	100	125	129	
Pressure Gauge - after sampling	-3.5	-3.4	-4	-2.5	-2	
Sample Volume	6 L	6 L	6 L	6 L	6 L	
Canister Pressure Went to Ambient Pressure?	YESINO	YESONO	YES NO	YES NO	YES /	
Final Tracer Gas Results in sampling line						
Final Tracer Gas Results in shroud						
Associated Ambient Air Sample Number	030_Ambient-1					
Weather 24 hours before and during sampling	60s, cloudy, rain					
General Comments	General Comments					

LANGAN

Site: 130 Saint Felix St.

Samplers: MM Date: 5/4/21

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Sample #	040_LSV-8B	030_Ambient-1	$\backslash$		/	
Location					/	
Summa Canister ID	782	1538				
Flow Controller ID	1556	1047			/	
Sample Depth (b.g.s.)	20.5'				/	
Additional Tubing Added	NO/ How much ~2'	YES - How much	NO YES - How much	NO/ YES - How much	NO/ YES- How much	
Purge Time (Start)	8:07	/			/	
Purge Time (Stop)	8:12			/	/	
Total Purge Time (min)	5			$\backslash$		
Purge Volume	1 L					
PID Test of Purge Air	112 ppb	$\land$				
Initial Tracer Gas Results in sampling line	0%					
Initial Tracer Gas Results in shroud	94.50%					
Pressure Gauge - before sampling	-30.0	-30.0				
Sample Time (Start)	9:07	6:45				
Sample Time (Stop)	11:17	15:00	/			
Total Sample Time (min)	130	495			$\backslash$	
Pressure Gauge - after sampling	-2	-4.4				
Sample Volume	6 L	6 L	/			
Canister Pressure Went to Ambient Pressure?	YES	YES	YES/ NO	YES / NO	YES / NO	
Final Tracer Gas Results in sampling line						
Final Tracer Gas Results					$\setminus$	
Associated Ambient Air		<u> </u>	/		<u>_</u>	
Sample Number	030_Ar	nbient-1			$\backslash$	
Weather 24 hours before	60s cloudy rain					
and during sampling						
General Comments						
LANGAN						