

APPENDIX H
Off-site Monitoring Well Construction and Sampling
Logs

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

PMW01_S

PROJECT		PROJECT NO.	
1095 Southern Boulevard		1095 Southern Boulevard	
LOCATION		ELEVATION AND DATUM	
Bronx, NY		N/A	
DRILLING AGENCY		DATE STARTED	DATE FINISHED
Aquifer Drilling and Testing, Inc.		7/29/2023	7/29/2023
DRILLING EQUIPMENT		DRILLER	
Fraste Multidrill ML Max Sonic Rig		Anthony Palomeque	
SIZE AND TYPE OF BIT		INSPECTOR	
4-inch Direct Push		Roswell Lo	
BOREHOLE DIAMETER		TYPE OF WELL (OVERBURDEN / BEDROCK)	
2-inch		Overburden	
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL	
PVC	2-inch	No. 2 Sand	
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL
PVC No. 10 Slot	2-inch	No. 2 Sand	Bentonite
METHOD OF INSTALLATION			
<p>A Fraste Multidrill ML Max Sonic Rig was used to advance the boring to approximately 15 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 15' of 10 slot (0.010-inch) well screen, and a solid 2" PVC riser. Well screen was installed from approximately 5 to 20 feet bgs with riser from 5 feet bgs to surface. Wells were finished with a flush mounted road box and concrete pad.</p>			
WELL DEVELOPMENT DATA			
SURGE BLOCK DIAMETER	N/A	TYPE PUMP	Submersible
DRILLER OR LANGAN	Langan	MAX PUMP RATE	1 LPM
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	5
Well developed until purged groundwater was no longer turbid.			
TOP OF CASING	ELEVATION	DEPTH (ft)	WELL DETAILS
	N/A	0	
TOP OF SEAL	ELEVATION	DEPTH (ft)	<p>The diagram illustrates a vertical well casing. At the top is a 'Cover'. Below it is a 'Riser' section. A 'Seal' is located at a depth of 3 feet. Below the seal is a 'PVC Screen' section, which is 15 feet long and contains 'No. 10 Slot; 0.010 Inches' openings. The bottom of the casing is at a depth of 20 feet. The well is surrounded by 'No. 2 Sand' backfill.</p>
	N/A	0.25	
TOP OF FILTER	ELEVATION	DEPTH (ft)	
	N/A	3	
TOP OF SCREEN	ELEVATION	DEPTH (ft)	
	N/A	5	
BOTTOM OF BORING	ELEVATION	DEPTH (ft)	
	N/A	20	
SCREEN LENGTH	15 feet		
SLOT SIZE	No. 10 Slot; 0.010 Inches		
GROUNDWATER ELEVATIONS			
ELEVATION	DATE	DEPTH TO WATER	SUMMARY SOIL CLASSIFICATION
N/A	7/29/2023	9.08 ft	
ELEVATION	DATE	DEPTH TO WATER	
N/A	10/17/2023	9.2 ft	
ELEVATION	DATE	DEPTH TO WATER	
		ft	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	
ELEVATION	DATE	DEPTH TO WATER	20
ELEVATION	DATE	DEPTH TO WATER	
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.			
360 West 31st Street, 8th Floor, New York			

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

PMW01_D

PROJECT			PROJECT NO.		
1095 Southern Boulevard			170199901		
LOCATION			ELEVATION AND DATUM		
Bronx, NY			NA		
DRILLING AGENCY		DATE STARTED	DATE FINISHED		
Aquifer Drilling and Testing, Inc.		7/13/2023	7/29/2023		
DRILLING EQUIPMENT			DRILLER		
Fraste Multidrill ML Max Sonic Rig			Anthony Palomeque		
SIZE AND TYPE OF BIT			INSPECTOR		
3-inch steel sampler, 7-inch casing			Roswell Lo		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
4 inch			Bedrock		
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
Steel	4-inch	Grout/Bentonite Slurry			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
Open Bedrock	3-inch	No. 2 Sand	Grout w/ 5% Bentonite		
METHOD OF INSTALLATION					
<p>The 3-inch sample was advanced in 5-foot intervals. A 4-inch steel casing was set into bedrock and sealed with a bentonite and grout mixture. The grout was circulated to grade until consistent and allowed a 24-hour curing period before bedrock was cored with a 3 and 7/8-inch HQ core bit to access fractures. Casing was drilled 5 foot into competent rock. Quarter drive shoe driven 0.5 feet into bedrock with 140 lb hammer. The well was finished with a flush-mount bolt down access cover and concrete pad.</p>					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER	1 7/8-inch	TYPE PUMP	Submersible	DEVELOPMENT CONFIRMATION	
DRILLER OR LANGAN	Langan	MAX PUMP RATE	1 LPM	Well developed until purged groundwater was no longer turbid.	
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	3 gallons		
TOP OF CASING	ELEVATION	DEPTH (ft)	<p>The diagram illustrates the well's vertical profile. From top to bottom: a cover at 0 ft depth; a 4-inch steel casing extending to 40 ft depth; an open bedrock screen section from 40 ft to 50 ft depth; and a grout seal at the bottom. Labels include 'Cover', '4-inch Steel Casing', 'Open Bedrock', 'Bedrock', and 'Grout Seal'.</p>		DEPTH (FT)
	N/A	0			0
TOP OF SEAL	ELEVATION	DEPTH (ft)			0
	N/A	3			
TOP OF FILTER	ELEVATION	DEPTH (ft)			
	N/A	4			
TOP OF SCREEN	ELEVATION	DEPTH (ft)			
	N/A	40			
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			
	N/A	50			
SCREEN LENGTH		10			
SLOT SIZE	Open Bedrock				
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	7/29/2023	9.08 ft			36
ELEVATION	DATE	DEPTH TO WATER			
N/A	10/17/2023	9.2 ft			40
ELEVATION	DATE	DEPTH TO WATER			
		ft			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
					50
ELEVATION	DATE	DEPTH TO WATER			
LANGAN Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.					
360 West 31st Street, 8th Floor, New York					

WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

PMW02_S

PROJECT			PROJECT NO.		
1095 Southern Boulevard			1095 Southern Boulevard		
LOCATION			ELEVATION AND DATUM		
Bronx, NY			N/A		
DRILLING AGENCY		DATE STARTED	DATE FINISHED		
Aquifer Drilling and Testing, Inc.		7/29/2023	7/29/2023		
DRILLING EQUIPMENT			DRILLER		
Fraste Multidrill ML Max Sonic Rig			Anthony Palomeque		
SIZE AND TYPE OF BIT			INSPECTOR		
4-inch Direct Push			Roswell Lo		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
2-inch			Overburden		
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
PVC	2-inch	No. 2 Sand			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
PVC No. 10 Slot	2-inch	No. 2 Sand	Bentonite		
METHOD OF INSTALLATION					
<p>A Fraste Multidrill ML Max Sonic Rig was used to advance the boring to approximately 15 feet bgs. A two-inch (2") PVC monitoring well was installed which consisted of 15' of 10 slot (0.010-inch) well screen, and a solid 2" PVC riser. Well screen was installed from approximately 5 to 20 feet bgs with riser from 5 feet bgs to surface. Wells were finished with a flush mounted road box and concrete pad.</p>					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER		N/A	TYPE PUMP	Submersible	DEVELOPMENT CONFIRMATION
DRILLER OR LANGAN		Langan	MAX PUMP RATE	1 LPM	Well developed until purged groundwater was no longer turbid.
NUMBER OF SURGE CYCLES		N/A	TOTAL VOLUME	5	
TOP OF CASING	ELEVATION	DEPTH (ft)	<p>The diagram illustrates the well's vertical profile. From top to bottom: a cover at 0 ft, a riser pipe extending to 3 ft, a seal at 5 ft, and a PVC screen extending from 5 ft to 20 ft. The annular space between the casing and the borehole is filled with No. 2 sand. Labels include 'Cover', 'Riser', 'Seal', 'PVC Screen', and 'No. 2 Sand'.</p>		DEPTH (FT)
	N/A	0			0
TOP OF SEAL	ELEVATION	DEPTH (ft)			0.25
	N/A	0.25			0.25
TOP OF FILTER	ELEVATION	DEPTH (ft)			3
	N/A	3			3
TOP OF SCREEN	ELEVATION	DEPTH (ft)			5
	N/A	5			5
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			20
	N/A	20			20
SCREEN LENGTH		15 feet			
SLOT SIZE		No. 10 Slot; 0.010 Inches			
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	7/29/2023	9.08 ft			
ELEVATION	DATE	DEPTH TO WATER			
N/A	8/25/2023	8.99 ft			
ELEVATION	DATE	DEPTH TO WATER			
N/A	10/17/2023	8.53 ft			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
					20
ELEVATION	DATE	DEPTH TO WATER			

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WELL CONSTRUCTION AND DEVELOPMENT SUMMARY

Well No.

PMW02_D

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1095 Southern Boulevard			170199901		
LOCATION			ELEVATION AND DATUM		
Bronx, NY			NA		
DRILLING AGENCY			DATE STARTED	DATE FINISHED	
Aquifer Drilling and Testing, Inc.			7/13/2023	7/29/2023	
DRILLING EQUIPMENT			DRILLER		
Fraste Multidrill ML Max Sonic Rig			Anthony Palomeque		
SIZE AND TYPE OF BIT			INSPECTOR		
3-inch steel sampler, 7-inch casing			Roswell Lo		
BOREHOLE DIAMETER			TYPE OF WELL (OVERBURDEN / BEDROCK)		
4 inch			Bedrock		
RISER MATERIAL	DIAMETER	TYPE OF BACKFILL MATERIAL			
Steel	4-inch	Grout/Bentonite Slurry			
TYPE OF SCREEN	DIAMETER	TYPE OF WELL PACK	TYPE OF SEAL MATERIAL		
Open Bedrock	3-inch	No. 2 Sand	Grout w/ 5% Bentonite		
METHOD OF INSTALLATION					
<p>The 3-inch sample was advanced in 5-foot intervals. A 4-inch steel casing was set into bedrock and sealed with a bentonite and grout mixture. The grout was circulated to grade until consistent and allowed a 24-hour curing period before bedrock was cored with a 3 and 7/8-inch HQ core bit to access fractures. Casing was drilled 5 foot into competent rock. Quarter drive shoe driven 0.5 feet into bedrock with 140 lb hammer. The well was finished with a flush-mount bolt down access cover and concrete pad.</p>					
WELL DEVELOPMENT DATA					
SURGE BLOCK DIAMETER	1 7/8-inch	TYPE PUMP	Submersible	DEVELOPMENT CONFIRMATION	
DRILLER OR LANGAN	Langan	MAX PUMP RATE	1 LPM	Well developed until purged groundwater was no longer turbid.	
NUMBER OF SURGE CYCLES	N/A	TOTAL VOLUME	3 gallons		
TOP OF CASING	ELEVATION	DEPTH (ft)			DEPTH (FT)
	N/A	0			0
TOP OF SEAL	ELEVATION	DEPTH (ft)			0
	N/A	3			
TOP OF FILTER	ELEVATION	DEPTH (ft)			
	N/A	4			
TOP OF SCREEN	ELEVATION	DEPTH (ft)			
	N/A	41			
BOTTOM OF BORING	ELEVATION	DEPTH (ft)			
	N/A	51			
SCREEN LENGTH			10		
SLOT SIZE			Open Bedrock		
GROUNDWATER ELEVATIONS					
ELEVATION	DATE	DEPTH TO WATER			
N/A	10/17/2024	8.5 ft		39	
ELEVATION	DATE	DEPTH TO WATER			
		ft		41	
ELEVATION	DATE	DEPTH TO WATER			
		ft			
ELEVATION	DATE	DEPTH TO WATER			
ELEVATION	DATE	DEPTH TO WATER			
				51	
ELEVATION	DATE	DEPTH TO WATER			

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