# APPENDIX A SOIL BORING & TEST PIT LOGS

## 31 TONAWANDA STREET SITE NO. C915299

# 2014 PANAMERICAN ENVIRONMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Table 1 April 2014
31 TONAWANDA STREET SITES PHASE II ESA SOIL DESCRIPTION

Page 1 of 2

BORINGS	BH-1	BH-2	BH-3	BH-4	BH-5	BH-6
Total Depth	15 feet	8 feet	8 feet	8 feet	16 feet	5 feet
General Geology	0-0.5 – cement, sand 0.5-2 ft – dark brown silty clay 2-4 ft – light brown silty clay 4-6 ft – grey-brown silty clay - moist 6-8 ft – light brown silty clay 8-11 ft – dark brown silty, sandy clay 11-13 - black silty clay 12-15 – greenish brown silty clay PID - background	0-0.5 ft —asphalt /black coal 0.5-3 ft —silty sand with gravel fill 3-4 ft — brown-red silty clay 4-6 ft — brown silty clay 6-8 ft- brown silty clay with blackchert/gravel 8-10 ft- brown silty clay — moist-wet 11-12 ft- dark brown silty clay PID - Background	0-0.5 ft —asphalt over cement and gravel 0.5-1 ft —black sandy gravel fill 1-4 ft — brown silty clay moist 4-8 ft- light brown silty clay PID - Background  Sample: 1 soil sample from 0.5- 1 foot interval — did not have analyzed	0-0.5 ft —asphalt over cement and gravel 0.5-2 ft —light brown- red silty clay 2-4 ft — brown-grey silty clay moist 4-8 ft- brown-red silty clay - stiff PID - Background	0-0.5 – black gravelly, sandy, silt fill 0.5-3 ft – silty clay with brick 3-4 ft – black sandy silt fill with sandstone 4-6 ft – dark sand – possibly foundry sand 6-7 ft – red-brown silty clay 7-8 ft – black gravely silt - wet 8-12 – red-black silty, gravely sand. Odor 12-16 – black silty clay – wet, with sheen and odor PID – 50-400ppm at 8-16 feet 1 soil sample from 9-12 interval	0-0.5 ft –silt fill and stone 0.5-4 ft - brown-red silty clay 4-5 ft –brown- red silty clay 5 foot refusal - cement PID - Background
PID Readings (ppm)	No readings above background	No readings above background	No readings above background	No readings above background	400ppm at 8-12 feet 60ppm at 12-16 feet	No readings above background
Odor	No odor noticed	No odor noticed	No odor noticed	No odor noticed	Strong but indistinguishable odor	No odor noticed

### Table 1 continued 31 TONAWANDA STREET SITES PHASE II ESA SOIL DESCRIPTION

Page 2 of 2

BORINGS	BH-7	BH-8	BH-9	BH-10
Total Depth	12 feet	9.5 feet	12 feet	12 feet
General Geology	0-0.5 – silt fill 0.5-5 ft – red-brown silty clay 5-6 ft – black sand possibly foundry sand 6-7 ft – cement 7-9 ft – red (rust)- black sandy gravely silt fill 9-11 – black silty clay 11-12 – black sandy, silty clay – very slight undistinguishable odor  PID – background 1 soil sample from 9- 12 interval	0-0.5 – asphalt and gravel 0.5-1 ft – sandy silt fill 1-3.5 ft – red-brown clay 3.5-5 ft – dark brown sand 5-7.5 ft – red-black sandy gravely silt fill with slag 7.5-8 – brick, stone 8-9.5 – silty clay – black at 9.5  PID – background 1 soil sample at 5-8 feet	0-3 ft – silty, sandy clay fill 3-3.5 ft – brick 3.5-4 ft – sandy silty fill with wood, stone 4-8 ft – clay intermixed with sand and stone. Brick at 8 feet 8-10 ft – sandy, silty clay with stone; moist 10-12 – silty grey clay; moist  PID – background	O5 ft – cement floor .5-5 ft – sand, stone, slag fill with some clay 5-6 ft – red-brown clay; tight 6-8 ft – brown-grey silty clay 8-10 ft – red-brown clay 10-12 ft – light grey clay  PID – background 1 soil sample at 3-5 feet – did not analyze
PID Readings (ppm)	No readings above background	No readings above background	No readings above background	No readings above background
Odor	very slight undistinguishable odor at 9-12 feet	No odor noticed	No odor noticed	No odor noticed

Table 2 Sept 2014 31 TONAWANDA STREET SITES PHASE II FOLLOW-UP

Page 1 of 2

BORINGS	BH-5	BH5-1S	BH5-2S	BH5-3S	BH5-4S
		10 feet south of BH-5	20 feet south of BH-5	30 feet south of BH-5	49 feet south of BH-5
Total Depth	16 feet	16 feet	12 feet	8.2 feet	12 feet
General Geology	0-0.5 – black gravelly, sandy, silt fill 0.5-3 ft – silty clay with brick 3-4 ft – black sandy silt fill with sandstone 4-6 ft – dark sand – possibly foundry sand 6-7 ft – red-brown silty clay 7-8 ft – black gravely silt - wet 8-12 – red-black silty, gravely sand. Odor 12-16 – black silty clay – wet, with sheen and odor PID – 50-400ppm at 8-16 feet 1 soil sample from 9- 12 interval	0-0.5 – black gravelly, sandy, silt fill possible foundry sand 0.5-3 ft – silty soil 3-4 ft – black sandy silt possible foundry sand 4-7 ft – sand – possibly foundry sand, brick, stone 7-8 ft – fill - moist 8-12 – black silty, sand. Odor – PID - 300+ ppm 12-16 – black sandy silt – wet, with odor- PID – 160+	0-1 – black gravelly, sandy, silt fill possible foundry sand 1-2 ft – light brown sand 2-4 ft – fill – brick, cement, black sand 4-8 ft – fill – black sand, brick, glass, stone 8-12 – black sandy, clayey silt. Odor – PID - 126+ ppm 12-16 – no recovery – very wet	0-0.5 – black gravelly, sandy, silt fill possible foundry sand 0.5-3 ft – fill – brick, brown silty sand, ash 3-8 ft – fill – black silty sand and brick 8.2 – refusal – wood  Moved 2 feet south and refusal again at 8.2 feet – PID 6-7 ppm	0-8 – black sandy, silt fill 8-12 – silty, gravely sand – wet  PID – 3-4ppm at 8-12 feet
PID Readings (ppm)	400ppm at 8-12 feet 60ppm at 12-16 feet	300+ ppm at 8-12 feet 160+ ppm at 12-16 feet	126+ ppm at 8-12 feet	6-7 ppm at refusal/wood at 8.2 feet	3-4ppm at 8-12 feet
Odor	Strong but indistinguishable odor	indistinguishable odor	indistinguishable odor	No odor noticed	No odor noticed

### Table 2 continued 31 TONAWANDA STREET SITES PHASE II ESA SOIL DESCRIPTION

Pag	ie	2	of	2

BORINGS	BH5-1N	BH5-2N	BH5-3N
	15 feet north of BH-5	30 feet north of BH-5	45 feet north of BH-5
Total Depth	9.5 feet	16 feet	12 feet
General Geology	0-1 – black sandy silt fill – possibly foundry sand 1-3 ft – brown silty clay 3-4 ft – black sand and brick 4-7.5 ft – red-black sand and gravel 7.5-8 ft – sandy silt - moist 8-9.5 – sand and gravel – very wet 9.5 refusal Odor and elevated PID	0-1 – black sandy silt fill – possibly foundry sand 1-3.5 ft – brown silty clay 3.5-4 ft – brown sand 4-7.5 ft – red-black sand and gravel 7.5-8 ft – sandy silt - moist 8-12 – silty sand with some clay  12-16 – no recovery  PID – 1-3 ppm at 12-16 feet 1 soil sample at 12-16 feet	0-1 – black sand and gravel fill – possibly foundry sand 1-4 ft – brown silty clay 4-7 ft – silty sand fill 7-8 ft – silty clay with brick, moist 8-12 – black sandy silt with clay – odor  PID – 0 ppm Coal tar odor at 8-12 feet
PID Readings (ppm)	Elevated – high – ppm not recorded	1-3 ppm at 12-16 feet	No readings above background
Odor	undistinguishable odor at 8-9 feet	slight odor noticed	Coal tar odor

# 2015 PANAMERICAN ENVIRONMENTAL LIMITED SUB-SLAB SOIL/ SUBSURFACE ASSESSMENT REPORT

Table 1 March 2015 31 TONAWANDA STREET SITE – SUB-SLAB SOIL

Page 1 of 1

BORINGS	BH-5	C-1	C-2	C-3	C-4
	Outside Phase II Soil Boring	Sub-Floor Northeast Corner of Southeast Section of Building	Sub-Floor Adjacent to Outside Door– Southeast Section of Building	Sub-Floor – West Wall of Southeast Section of Building	Sub-Floor North-Middle Section of Southeast Section of Building
Total Depth	16 feet	12 feet	12 feet	16 feet	16 feet
General Geology	0-0.5 – black gravelly, sandy, silt fill 0.5-3 ft – silty clay with brick 3-4 ft – black sandy silt fill with sandstone 4-6 ft – dark sand – possibly foundry sand 6-7 ft – red-brown silty clay 7-8 ft – black gravely silt - wet 8-12 – red-black silty, gravely sand. Odor 12-16 – black silty clay – wet, with sheen and odor PID – 50-400ppm at 8-16 feet 1 soil sample from 9-12 interval	0-4 – black gravelly, sandy, silt fill possible foundry sand with stone, cement, brick, ash 4-8 ft – silty clay soil; odor 8-10 ft – black sandy gravel silt silt, odor 40 ppm on PID 10-12 – black sandy silty clay – wet, with odor– PID –20 ppm 1 soil sample – 8 feet	0-4 – black gravelly, sandy, silt fill possible foundry sand with stone, cement, brick, ash 4-10 ft – silty clay soil redbrown; 10-12 – black sandy silty – wet, with odor- PID –12 ppm	0-6 – black sandy fill possible foundry sand with stone, cement, brick, ash 6-8 ft – black sand and ash fill; 6-11 ppm PID 11-12 – black silty clay—sticky- PID –0 ppm 12-16 – day - PID –0 ppm 1 soil sample – 6-8 feet	0-4 – black sandy fill possible foundry sand 4-8 ft – black sand and ash fill with brick; 3-7 ppm PID 8-9 ft – black sand fill; 10 ppm PID 9-12 – brown silty clay—sticky- PID –0 ppm 12-16 – grey clay - PID –0 ppm 1 soil sample – 6-8 feet
PID Readings (ppm)	400ppm at 8-12 feet 60ppm at 12-16 feet	40 ppm at 8-10 feet 20 ppm at 10-12 feet	12 ppm at 10-12 feet	6-11 ppm at 6-8 feet	3-10 ppm at 6-9 feet
Odor	Strong indistinguishable odor	indistinguishable odor starting at 8 feet	indistinguishable odor	No odor noticed	No odor noticed

### 2019 BE3 REMEDIAL INVESTIGATION REPORT



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				<u> </u>	
Project: 31	Project: 31 & 150 Tonawanda St			St	Sheet: 7 of 12
Client: 31 Tonawanda St LLC					Location: 31 Tonawanda St, Buffalo NY
Contractor: Nature's Way					Ground Elevation: N/A Lat: 42.929383 Long: -78.896700
Date Starte	ed: 8/	16/201	8		Operator: Nate Gingrich
Date Comp	leted	l: 8/16/2	2018		Geologist/Technician: Alex Brennen
Bore Hole	Numb	per: 31:	BH-1		Ground Water: 8 to 9 fbgs
	Sa	ımple	PID		Description
Depth (FT) 0	NO	TYPE	(ppm) 2.7	0 to 3 fee	et: Loose black sands, fine to coarse gravel, some brick and concrete
1			2.1	0 10 0 100	tt. 2003c black salids, life to coalse gravel, some blick and concrete
<u> </u>					
2			2.5		Odor noted at 2 to 3 fbgs
					Some brick and concrete at 3 fbgs
3	1		2.8		3 to 3.9 feet: Brown clay, fine to coarse gravel
					3.9 to 4 feet: Grey/brown sands, odor
4					4 to 7.8 feet: Concrete, grey sands, fall in
5					
6					
7					
•				7.8 to	o 8 feet: Moist silt and fine sand, fine to coarse gravel, trace brick
8					3.5 feet: Wet sands, fine to coarse gravel, odor and product noted
9					
10			4.5		
14					
11 11.5	1		28.2		
11.5			7.9		
14			7.0		
13					
13.5	2		19.2	13.5 to 16	feet: Wet dark brown silt, fine sand, staining noted on outside of core
14					
15			27.8		
16			Ļ		
u 'ammante	· Nat	tiva nat	haliava	d to be encou	ntered. Once helow 8 that rods were noted as covered in

Comments: Native not believed to be encountered. Once below 8 fbgs, rods were noted as covered in sheen/product. Decon done after boring. PID readings detected at depths noted above. Samples taken at 0 to 3 fbgs. and 13.5 to 15 fbgs - fill material.



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L	שוטכ	I IOIE L	ENVIRONMENT - ENGINEERING - ENERGY 716.249.0880 P De3Corp.com
Project: 31	l & 150 <sup>-</sup>	Tonawanda	St Sheet: 8 of 12
Client: 31	Tonawa	nda St LLC	Location: 31 Tonawanda St, Buffalo NY
Contractor	: Nature	's Way	Ground Elevation: N/A Lat: 42.929648 Long: -78.896400
Date Starte	ed: 8/16	/2018	Operator: Nate Gingrich
Date Com	pleted: 8	3/16/2018	Geologist/Technician: Alex Brennen
		r: 31: BH-2	Ground Water: 8 to 9 fbgs
Donth /FT	Sam		Description
0 Deptil (F1)	) NO 1	YPE (ppm)	0 to 2 feet: Brown silt, fine sand, fine to coarse gravel, trace brick and concrete
1			
2			2 to 4 feet: Brown clay, some fine gravel, dense
3			
<u> </u>	+ +		
4			4 to 8 feet: Brown/black sands, some silt, fine to coarse gravel,
			trace brick and concrete
5			
6			
7			
8			8 to 11 feet: Same as above, wet, brick throughout
9			
<u> </u>			
10			
			444 406 4 5
11 11.7		2.7	11 to 12 feet: Brown clay/silts, medium dense, wet, trace brick  Black staining, and strong odor
12	1	0.4	12 to 16 feet: Same as above, staining and odor
13			
14			
15	+ +		Minimal stain and odor at 16fbgs
16		1.7	16 to 18 feet: Same as above, odor noted, wet
17	++		
18		2.5	18 to 19 feet: Fine to coarse sands, fine to coarse grave, strong odor
18.7		16.3	40 to 20 fact. Prove clavisit fine to copyed gravel uset -fine to copyed
19 19.8	2	25.8	19 to 20 feet: Brown clay/silt, fine to coarse gravel, wet, strong odor  Brown/Copper sheen and product
20		27.7	Product noted in core
Commonto	. Notive	at 10 fbac	Docon done after having PID readings detected at deaths noted above. Samples

Comments: Native at 18 fbgs. Decon done after boring. PID readings detected at depths noted above. Samples taken at 12 to 13.5 fbgs - fill material and 19 to 20 fbgs - native material.



Project: 31	& 15	0 Tona	wanda	St	Sheet: 9 of 12
Client: 31 T	onav	vanda S	St LLC		Location: 31 Tonawanda St, Buffalo NY
Contractor: Nature's Way					Ground Elevation: N/A Lat: 42.929923 Long: -78.896318
Date Starte	:d: 8/	16/2018	8		Operator: Nate Gingrich
Date Comp	letec	I: 8/16/2	2018		Geologist/Technician: Alex Brennen
Bore Hole I	Numl	per: 31:	BH-3S		Ground Water: 9 fbgs
D " (ET)		mple	PID		Description
Depth (FT) 0	NO	TYPE	(ppm)	0 to 1	.7 feet: Asphalt at top, brown sands, silt, dry, fine to coarse gravel
1				0 10 1	trace wood, brick, and concrete,
					1.7 to 4 feet: Dense brown clay, fine to coarse gravel
2					
3					
4					4 to 5 feet: Brown clay, fine to coarse gravel
-					to cross. Brown stay, mile to course graves
5					5 to 9 feet: black sands, silt, fine to coarse gravel, moist
6					
7					
8					Very moist at 8 fbs
					,
9					9 to 11 feet: Wet sands, fine to coarse gravel
10					
11					11 to 13.5 feet: Brown clay, wet, dark staining, slight odor
11.7					11 to 10.0 leet. Brown day, wet, dark stairing, slight odd
12	1		0.2		dark staining on outside of core, stronger odor
13					Defined at 12 F fema
13.5 14					Refusal at 13.5 fbgs
15					
16					
	· Nat	tive not	encour	itered Decon	done after boring PID readings detected at depths noted above

Comments: Native not encountered. Decon done after boring. PID readings detected at depths noted above. Sample taken at 12 to 13.5 fbgs - fill material.



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				- 3			
Project: 31	roject: 31 & 150 Tonawanda St		St	Sheet: 10 of 12			
Client: 31 Tonawanda St LLC			St LLC		Location: 31 Tonawanda St, Buffalo NY		
Contractor: Nature's Way					Ground Elevation: N/A Lat: 42.929965 Long: -78.896430		
Date Starte	d: 8/	16/2018	8		Operator: Nate Gingrich		
Date Comp	leted	: 8/16/2	2018		Geologist/Technician: Alex Brennen		
Bore Hole I	Numb	er: 31:	BH-4		Ground Water: 7.5 to 8 fbgs		
	Sa	mple	PID		Description		
Depth (FT) 0	NO 1	TYPE	(ppm)	0 to 3.5 feet	:: Asphalt and subbase at top, Black silt, fine sand, fine to coarse gravel,		
1	<u>'</u>			0 10 0.0 1001	trace glass, brick, wood		
					, ,		
2							
3					3.5 to 6 feet: Brown clay, some fine gravel		
4					5.5 to 6 feet. Brown day, some line graver		
'							
5							
					Concrete at 5.2 fbgs		
6				6 to	7.5 feet: Silt, fine sand, fine to coarse gravel, trace wood, moist		
7							
					7.5 to 10.5 feet: Grey silt/clay, fine to coarse gravel, wet		
8							
9							
10							
10				10.	.5 to 12 feet: Sands, some loose gravel, trace brick, odor noted		
11							
11.5	2		0.3				
12					12 to 16 feet: Soft grey clay/silt, fine to coarse gravel, wet  Bottom of sample fall out - too wet		
13					DOLLOTH OF SAMPLE TAIL OUT - 100 WEL		
14							
15							
16 Commonto	. Nici	ivo nat	onco	stored Descri	done after horing PID readings detected at denths noted above		

Comments: Native not encountered. Decon done after boring. PID readings detected at depths noted above. Sample taken at 11.5 to 12 fbgs - fill material.



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Project: 31	roject: 31 & 150 Tonawanda St			St Sheet: 11 of 12
Client: 31 Tonawanda St LLC				Location: 31 Tonawanda St, Buffalo NY
Contractor:	Natu	ıre's W	ay	Ground Elevation: N/A Lat: 42.930092 Long: -78.896391
Date Starte	ed: 8/	16/201	8	Operator: Nate Gingrich
Date Comp	letec	l: 8/16/2	2018	Geologist/Technician: Alex Brennen
Bore Hole I	Numl	per: 31:	BH-5	Ground Water: 9 fbgs
Double (CT)		mple	PID	Description
Depth (FT) 0	1 1	TYPE	(ppm)	0 to 1.5 feet: Brown sands, fine to coarse gravel
1				g
				1.5 to 6 feet: Brown/black silt/sand, fine grave, trace brick, concrete, and wood
2				
3				
4				
5				
6	2		20.7	6 to 9 feet: Black sands, fine to coarse gravel, strong petro odor, staining
7			116	
7.5			224	
8			29	
9			15	9 to 12 feet: Soft brown silt/sand, fine to coarse gravel, light staining
10				
11				
12			0.3	
13				
10				
14				
15				
10				
16 Comments	· No	ivo not	oncour	ptered. Decon done after having PID readings detected at denths noted above

Comments: Native not encountered. Decon done after boring. PID readings detected at depths noted above. Sample taken at 0 to 2 fbgs and 6 to 8 fbgs - fill material.



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				<u>- 3</u>				
Project: 31	& 15	0 Tona	wanda (	St	Sheet: 12 of 12			
Client: 31 T	Client: 31 Tonawanda St LLC				Location: 31 Tonawanda St, Buffalo NY			
Contractor: Nature's Way					Ground Elevation: N/A Lat: 42.90263 Long: -78.896511			
Date Starte	:d: 8/	16/201	8		Operator: Nate Gingrich			
Date Comp	leted	l: 8/16/2	2018		Geologist/Technician: Alex Brennen			
Bore Hole N	Numb	per: 31:	BH-6		Ground Water: 9 fbgs			
	Sa	ımple	PID		Description			
Depth (FT) 0	NO 1	TYPE	(ppm)	0	to 1 feet: Brown dry sands, fine to coarse gravel, trace brick			
1	<u>'</u>				Concrete at 1 fbgs			
'				1 to 2.5 fee	et: Grey/brown silt and sand, fine to coarse gravel, trace brick, concrete			
2								
				2.5	to 4.2 feet: Dense brown clay, some silt, fine to coarse gravel			
3								
4	2		22.1	4.2 to	o 6 feet: Black sand, fine to coarse gravel, trace wood. Ptero odor			
4			22.1	4.2 10	of leet. Black Salid, lille to coalse gravel, trace wood. Field oddi			
5								
6					Refusal at 6 fbgs			
7								
7.5 8								
0								
9								
10								
4.4								
11								
12								
13								
14								
14								
15								
10								
16 Comments:	· Nat	ivo not	oncoun	torod Docon	done after horing. PID readings detected at denths noted above			

Comments: Native not encountered. Decon done after boring. PID readings detected at depths noted above. Sample taken at 0 to 2 fbgs and 4 to 6 fbgs - fill material.



			Log	ENVIRONMENT . ENGINEERING . ENERGY	716.249.6880 be3corp.com						
Project: 31 Supplemen			Street	Sheet: 1 of 1							
Client: 31 T	onav	vanda S	Street LLC	Location: 31 Tonawanda Street Buffalo NY							
Contractor:	Natu	res Wa	ny	Ground Elevation:							
Date Starte	:d: 2-	4-19		Operator:							
Date Comp	leted	: 2-4-19	9	Geologist/Technician: Peter J. Gorton							
Bore Hole N	Numb	er: SBI	H-1	Ground Water:							
Depth (FT)		mple TYPE		Description							
0				oof floor - 2-4 feet of crawl space below							
1			0-1 feet - san	feet - sandy, gritty, cinders with brick							
2			1-1.5 ft - silty	.5 ft - silty clay							
3			1.5-3 ft - black	sand with cinder							
4			3-4 ft - brown-	red silty clay							
5			10ppm PID								
6											
7											
8			4-7.5 ft - red-b								
0			1-3 ppm PID	silty sand moist							
9											
10											
11											
12			8-12 ft - browi	n silty clay soft at 10 ft							
13											
14			12-14 ft - dark	brown silty clay - soft, moist							
15											
16			14-16ft - dark	brown-black silty clay - soft							
Comments	: Coll	ect soil	samples at 2-	4, 8 and 16 feet							



	0 1 10	<u> </u>	ENVIRONMENT - ENGINEERING - ENERGY								
Project: 31 Supplemen	Tonawan tal RI	da Street	Sheet: 1 of 1								
Client: 31 T	onawand	a Street LLC	Location: 31 Tonawanda Street Buffalo NY								
Contractor:	Natures \		Ground Elevation:								
Date Starte		•	Operator:								
Date Comp		-19	Geologist/Technician: Peter J. Gorton								
Bore Hole N	Number: S	SBH-2	Ground Water:								
Depth (FT)	Sample NO TYP	PE PE	Description								
0			ood Floor - 2-4 feet of crawl space								
1		0-1 feet - slag	g and cement - refusal								
2											
3											
4											
5											
6											
7											
8											
9											
10											
10											
11											
12											
13											
10											
14											
15											
10											
16											
Comments:	Slag and	I cement prevent	s further drilling								



Project: 31 Tonawa Supplemental RI	anda Street	Sheet: 1 of 1
Client: 31 Tonawar	nda Street LLC	Location: 31 Tonawanda Street Buffalo NY
Contractor: Natures	s Way	Ground Elevation:
Date Started: 2-4-1		Operator:
Date Completed: 2	2-4-19	Geologist/Technician: Peter J. Gorton
Bore Hole Number		Ground Water:
Samp Depth (FT) NO T	ple YPE	Description
0	Cut through w	vooden floor - 2-4 feet of crawl space below
1		
2	+	
	+	
3		
4	0-4 ft - slag, sa	and, cinder
_	10ppm PID	
5		
6	4-6 Ft - sand v	with stone
0	4-0 Ft - Sand v	with Stone
7	6-7 ft - clay	
	7-7.5 fet - coa	
8	7.1-8 ft - red-b	prown clay
9		
10	8-10 ft- brown	clay - soft at 10 ft
10	0-10 IE DIOWII	Clay - Soit at 10 it
11		
12	10-12 ft - silty	clay with sand and stone - wet
13		
13	+	
14		
15		
10	<del></del>	
16	12-16 - real lo	se and wet- no recovery feet and collected grab water sample and soil sample collected at 10 -11'
Comments: installe	ed 1-inch well to 16	feet and collected grab water sample and soil sample collected at 10 -11'



Dol'd I lold Log			ENVIRONMENT • ENGINEERING • ENERGY
Project: 31 Supplemen		Street	Sheet: 1 of 1
	onawanda	Street LLC	Location: 31 Tonawanda Street Buffalo NY
	Natures Wa		Ground Elevation:
Date Starte		<del>,</del>	Operator:
	oleted: 2-4-1	9	Geologist/Technician: Peter J. Gorton
Bore Hole N			Ground Water:
Depth (FT)	Sample		Description
0	1.0   =	1	vood floor - 2-4 feet crawl space below
1			
		<u> </u>	
2	igwdown	<u> </u>	
	$\vdash$	<del> </del>	
3	<del>                                     </del>	<del> </del>	
4	<del>                                     </del>	0_1 ft - some	cement at 0-1; black cindery sand with brick
	<del>                                     </del>	1-10ppm PID	
5	<del>                                     </del>	Торрин	
		†	
6		4-6 Ft - sand,	cinder, ash black and white
7		6-7 ft - clay	
	igwdown	<u> </u>	
8	$\vdash$	7-8 ft - sand w	with stone - damp
	<del>                                     </del>	<del> </del>	
9	<del>                                     </del>	<del>                                     </del>	
10	<del>                                     </del>	8-10 ft- sand.	cinder - damp
1.0		20-30 ppm on	
11			<del></del>
12		10-12 ft - silty	clay - soft
42	<del></del>	<del> </del>	
13	<del>                                     </del>	<del>                                     </del>	
14	<del>                                     </del>	<del> </del>	
15	<del></del>	<b></b>	
16	<del>                                     </del>	<del>                                     </del>	
	: Collected s	soil sample for	analysis at 8 feet, 10 feet and 12 feet
4			



Bol	re F	101e	Log	ENVIRONMENT - ENGINEERING - ENERGY 716.249.6880  be3corp.com								
Project: 31 Supplement	Tonav			Sheet: 1 of 1								
			`troot I I C									
Client: 31 T				Location: 31 Tonawanda Street Buffalo NY								
Contractor:			У	Ground Elevation:								
Date Starte				Operator:								
Date Compl				Geologist/Technician: Peter J. Gorton								
Bore Hole N		er: SBI nple	1-5 	Ground Water:								
Depth (FT)				Description								
0			Cut through m wood beams i	netal and then wooden floor - 2-4 feet crawl space below. Fire damage on noted								
1												
			0.05									
2			0-2 ft - sand, o	cinder, ash								
3												
4			2-4 ft - clay, ti	ght								
			5-30ppm PID									
5												
6												
7			4-7 ft - clay, ti									
			5-10 ppm PID									
8			7-8 ft - sand, o 5-20 ppm PID									
9			о-20 рриги по									
10												
44												
11												
12			8-12 ft - silty s 10-40 ppm Pll	sand with some clay and stone - wet - partial recovery								
13			то-40 ррпп Рп	υ -								
14	$\vdash \vdash$											
15												
10												
16 Comments:	Colle	cted s	nil sample for s	analysis at 4 feet, 8 feet and 10-12 feet								
			•									



	1010 =	<u> </u>	ENVIRONMENT - ENGINEERING - ENERGY							
Project: 31 Tona Supplemental R			Sheet: 1 of 1							
Client: 31 Tonav	vanda Street	t LLC	Location: 31 Tonawanda Street Buffalo NY							
Contractor: Natu	ıres Way	i	Ground Elevation:							
Date Started: 2-			Operator:							
Date Completed			Geologist/Technician: Peter J. Gorton							
Bore Hole Numb			Ground Water:							
	ample		Description							
0		sal - could	not break through the cement with the machine that was brought							
1										
2										
3										
4										
-										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
15										
16										
Comments:										

### Geoprobe

Bore Hole Log



Project: 31 Tonawanda Supplemental RI	Street	Sheet: 1 of 1							
Client: 31 Tonawanda S	Street LLC	Location: 31 Tonawanda Street Buffalo NY							
Contractor: Natures Wa		Ground Elevation:							
Date Started: 2-4-19		Operator:							
Date Completed: 2-4-19	)	Geologist/Technician: Peter J. Gorton							
Bore Hole Number: SBI		Ground Water:							
Sample Depth (FT) NO TYPE		Description							
0	refusal - coul	d not break through the cement with the machine that was brought							
1									
2									
2									
3									
4									
5									
6									
0									
7									
8									
9									
10									
10									
11									
12									
13									
13									
14									
15									
15									
16									
Comments:									

### Geoprobe

Bore Hole Log



Project: 31 Supplement			Street	Sheet: 1 of 1							
Client: 31 To			treet LLC	Location: 31 Tonawanda Street Buffalo NY							
Contractor:				Ground Elevation:							
Date Starte				Operator:							
Date Compl	eted	: 2-4-19	)	Geologist/Technician: Peter J. Gorton							
Bore Hole N				Ground Water:							
Depth (FT)		mple TYPE		Description							
0				hrough the wood floor - could not break through the cement below the nachine that was brought							
1											
2			<u> </u>								
0											
3											
4											
5											
6											
			<u> </u>								
7			<u> </u>								
			1								
8											
9											
J											
10											
11											
			<u> </u>								
12			<u> </u>								
13											
10											
14											
15											
10											
16											
Comments:											

## 31 TONAWANDA STREET OFF-SITE SITE NO. C915299A

# 2020 NYSDEC REMEDIAL INVESTIGATION

			5	NEW YORK	Department o	ſ				SOIL BORING LOG					
			_	OPPCRIUMITY	Conservation					BORING NO: SB-100					
ROJEC	Г:	31 To	onawan	da Street (	Off-Site - R	emedial Ir	nvestigation			SHEET: 1 of 2					
LIENT:		NYSI	DEC							SITE NO.: C915299A					
RILLING	CONTRA	СТО	₹:	TREC Env	rironmenta	1				BORING LOCATION:					
ROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18	/20			
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18	/20			
					DIA.		2"			DRILLER:	Eric Han	nman			
					WT.			1:.		GEOLOGIST:	Steven I	/loelle	-		
					FALL					REVIEWED BY:					
	SAMPLE DESCRIPTION														
DEPTH	STRATA	NO	TYPE	% REC	COLOR	MOIST.			MATE	RIAL	uscs	PID	(ppm)		
FEET	OHAIA	110.	111.	/0 IXLO	OOLOR				ESCR	IPTION	0000	Soil	BHS		
	x x x x x x x x x x x x x x x x x x x				Brown	Dry	2" Topsoil wi								
1	$\times\!\!\times\!\!\times\!\!\times$		4.		Gray		6" Angular gi				<u> </u>				
	$\bowtie$				Gray		Gravel and b	rick frag	ment ir	silty clay loam soil matrix	Fill		1		
2	***************************************	1	2.0" MC	50%	to	Slightly						2.8	N/A		
3	XXXXX		IVIC		Dark Gray	Moist to									
3	***************************************				to	Moist									
4	XXXXX		,		Black										
•	XXXXX				Brown	Wet	Sand and an	igular gra	vel in a	a clayey silt matrix	Fill				
5	***************************************							· · · · ·							
	*******														
6	******		2.0"	200/	* 1							00	NI/A		
	XXXXX	2	MC	30%								0.0	N/A		
7	********			j							İ	•	ł		
			-	-											
8							- piece of wo			<u> </u>					
	XXXXX				Gray	Wet	Sand and mo			avel, trace silt & clay, no	Fill				
9	XXXXX	-			-	:	Jodoi. Possii	de iaii iii.							
4.0	<b>XXXXX</b>		0.01								1				
10	XXXXX	3	2.0" MC	25%								0.0	N/A		
11	<b>******</b>		IVIO				-								
11	*****		Í												
12	$\times\!\!\times\!\!\times\!\!\times$														
					Gray	Wet	Same as abo	ove with	trace o	f brick fragments. Slight	Fill				
13	<b> </b>						petroleum/co			• • • • • • • • • • • • • • • • • • •					
14		4	2.0"	23%								N/A	0.2		
-	₩₩		MC	2370							1	"^	0.2		
15	<b> </b>					1							1		
	<b> </b>														
16					Gray	Wet	0.8' same as	ahovo			Fill	ļ	-		
47					Gray	vvet	o.o same as	above							
17					Black		0.7' Silty Cla	v with a	coal ta	odor	ML-CL	1			
18	Шиши		2.0"		Gray	<del> </del>	Fine Sand, t				SM	71.4			
10		5	MC	53%								,	80.		
19			1												
20							- reddish br	own coal	tar in t	ip of sampler					
			•					F1	of Darie	a @ 20! has		•			
								<u> </u>	חוסם וי	ng @ 28' bgs					
	ÆNTS:						tracked direct-			SITE NO.: C915299A					

		-	۶	NEWYORK		SOIL BORING LOG							
				7	Environmenta Conservation	<u> </u>				BORING NO: SB-100			
PROJEC.	Τ:	31 T	onawan	da Street (	Off-Site - R	emedial Ir	vestigation			SHEET:	2 of 2		
CLIENT:		NYS	DEC							SITE NO.: C915299A			
DRILLING	G CONTRA	CTO	R:	TREC Env	/ironmenta	1				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18	/20	
					DIA.		2"			DRILLER:	Eric Han	nman	
					WT.					GEOLOGIST:	Steven N	Moeller	
					FALL					REVIEWED BY:			
		SA	MPLE						DESCR				
DEPTH									MATE	RIAL	Τ	PID	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI		USCS	Soil	BHS
					Gray	Wet	1.3' fine & me	edium s		ce silt & clay. Coal tar	SM	COII	5.10
21						,	staining & od		,				
					************		)	***********		***************************************			. ]
22			2.0"		Reddish	Moist	Bottom 0.2' S	Silty Cla	ay with vis	sible reddish brown coal	ML-CL	-	
		6	MC	38%	Brown		tar.					N/A	547
23													
24													
					Gray	Wet	1.2' fine & me	edium :	Sand, tra	ce silt & clay. Coal tar	SM		823
25							staining & od						
			- 1		ļ								
26			2.0"		Reddish	DNAPL	Silty Clay, he	avily ta	ar impacte	ed	ML-CL		1295
		7	MC	78%	Brown		- 4" thick me	edium te	o coarse	sand stringer	:	N/A	
27						-				· ·			
							There was so	ome int	er laverin	g of sand/gravel & silty			
28					Ì		clay		<b>,</b>	gg			1
											<del>                                     </del>		
29	·												
											1		]
30							-						
31													
32													
33													
i i	1												
34													
	1					'							
35					1		1						
36													
				-									
37													
						}					1		
38	]					1							
39					1						1		
	]												
40													
						·.		End	l of Borin	g @ 28' bgs			
COMN	MENTS:						racked direct-	push ri	g;	SITE NO.: C915299A			
					II MW-100 i					BORING NO	) SR	-100	,
		BHS	= Bag I	Headspace	NR = No	t Recorded	i				UD		<u> </u>

	,	NEWYORK Department of								SOIL BORING LOG				
				OPPERTUNITY	Environmenta Conservation					BORING NO: SB-103				
PROJECT	Т:	31 T	onawan	da Street (	Off-Site - R	emedial Ir	vestigation			SHEET:	1 of 2			
CLIENT:		NYS	DEC							SITE NO.: C915299A				
DRILLING	CONTRA	СТО	R:	TREC Env	rironmenta	l				BORING LOCATION:				
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18/	20		
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18/	20		
					DIA.		2"		DRILLER:	Eric Ham	ıman			
					WT.		-			GEOLOGIST:	Steven M	loeller		
-					FALL					REVIEWED BY:				
		SA	MPLE						DESCR	IPTION		*		
DEPTH	077474		7/05	0/ 550	001.00	MOIOT			MATE	RIAL		PID (	(ppm)	
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI	PTION	USCS	Soil	BHS	
	XXXXXX				Brown	Slightly	1' Topsoil w	ith grav	el					
1	XXXXX					Moist						.		
	***************************************				Gray	to	8" Sand and	l angula	r Gravel		Fill	. 1	ď	
2	***************************************	1	2.0"	55%		Dry					ł	N/A	N/A	
	***************************************	•	MC	33 /6	Reddish			ilty clay	with sand	d, gravel, & brick			IVA	
3					Brown		fragments							
	XXXXX				to Black									
4	XXXXX				Diack									
	XXXXX				Dark	Moist		sand, sil	ty clay, c	layey silt, brick pieces &	Fill			
5	XXXXX				Brown to	to Wet	gravel							
	XXXXX				Black	vvet								
6	XXXXX	2	2.0"	48%								0.0	N/A	
	$\times\!\!\times\!\!\times\!\!\times$	-	MC											
7	XXXXX	!										,		
	XXXXX				,									
8	<u> </u>													
					Black	Wet	Fine to coar	se San	d & Grave	el, trace silt & clay	SM-GM			
9														
				,									i ii	
10		3	2.0"	35%								0.0	N/A	
			MC											
11					Crovich		Last four inc	hoo oo	rco Cono	I & Gravel, trace silt & clay	SM CM			
40					Grayish Brown		Last lew inc	1162 606	arse Sand	i & Graver, trace sitt & clay	SIVI-GIVI			
12	****				Black	Wet	0.8' fine car	nd trace	eilt aray	vel & brick pieces. Fall in.	Fill			
12					Diack	VVCt	0.0 1110 341	ia, iracc	, ont, grav	rer a briok pieces. Tairin.	'"			
13	*****				****************		Fine to coal	rse San	d & Grave	el, trace silt & clay	SM-GM			
14	<b> </b>		2.0"			1		. 50 Suit	_ S S 14V	, 400 o a olaj	5 0			
	<b> </b>	4	MC	50%	1							N/A	68.2	
15	<b> </b>			1										
	<b> </b>				[		- last few in	nches N	APL impa	acted - sheen & coal				
16	<b> </b>						tar odor							
					Black	Wet	Same as at	ove. C	utside of	sample liner tube did not	011 011			
17		1					show NAPL	. impact	s.		SM-GM			
	1	1		}							]	'		
18		_ ا	2.0"	050/							1	64		
	1	5	MC	25%								6.4	N/A	
19												.		
	<b>1</b>													
20											<u></u>			
								Fno	d of Borin	g @ 24' bgs				
	***													
COMN	MENTS:						tracked direc	t-push r	ig;	SITE NO.: C915299A				
										BORING NO	).: SB	-10?	3	
2"											··· •••		•	

				NEWYORK	Department o	f	·			SOIL BORING	G LOG		
			ے	OPPORTUNITY	Department o Environmenta Conservation	d			BORING NO: SB-103				
PROJEC	T:	31 T	nawan	da Street (	Off-Site - Remedial Investigation					SHEET:	2 of 2		7
CLIENT:	- · · · · · · · · · · · · · · · · · · ·	NYS								SITE NO.: C915299A			
DRILLING	CONTRA	СТОІ	₹:	TREC Env	rironmenta	ı				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18/	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18/	/20	
					DIA.		2"			DRILLER:	Eric Ham	nman	
		ļ			WT.		<u>-</u>			GEOLOGIST:	Steven N	/loeller	
					FALL					REVIEWED BY:			
		SA	MPLE						DESCR				
DEPTH FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			MATE DESCRI		uscs	Soil	(ppm) BHS
21					Black	Wet	1.4' fall in.				Fill		
	XXXX												
22		6	2.0"	100%	Gray					I, slightly plastic, sticky.	ML-SM	N/A	248.4
		٥	MC	10070	Reddish		NAPL impac			ngs, very firm, plastic.	ML-CL	19/7	240.4
23					Brown					22.5' (top of clay) but not	02		
24							into clay.						
25				-									
	İ												
26													
27			•										
28						-				<u> </u>			
29													
30													
31											·		
32													
33													
34													
35													
36													
37													
38													
39	_												
40													
								End	of Borin	g @ 24' bgs			
COMP	MENTS:	Bori	na nerfo	rmed with	Geographa	6620 DT 1	tracked direc	t-nush ri	ia.	SITE NO.: C915299A	<del>.</del>		
COIVII	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.				II MW-103 i			, publi li	·3 <sup>,</sup>			<u> </u>	
					NR = No					BORING NO	).: SB	-103 	5

NEW YORK SHUGGEN THE CONSERVATION CONSERVATION						SOIL BORING	G LOG						
· · · · · · · · · · · · · · · · · · ·							BORING NO: SB-106						
PROJECT: 31 Tonawanda Street Off-Site - Remedial Investigation							<b>SHEET</b> : 1 of 2						
	CLIENT: NYSDEC SITE NO.: C915299A												
DRILLING	CONTRA	CTO	R:	TREC Env	/ironmenta	1				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18	20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18/	20	
					DIA.		2"			DRILLER:	Eric Ham	ıman	
					WT.					GEOLOGIST:	Steven N	loeller	
					FALL					REVIEWED BY:			
		SA	MPLE		.,				DESCR	<u> </u>	· · · · · · · · · · · · · · · · · · ·		
DEDTU		34	MILE	-	DESCRIPTION MATERIAL				<del>-                                    </del>	DID.	(		
DEPTH	STRATA	NO.	TYPE	% REC	COLOR	MOIST.				•	uscs		(ppm)
FEET	***********								DESCRI	PTION		Soil	BHS
	$\times\!\!\times\!\!\times\!\!\times$				Brown	Moist	4" Topsoil w	_		•			
1	XXXXXX				Gray		Few inches						
	XXXXXX			'	Brown			Ity clay,	plastic,	gravel inclusions, gray silty	Fill		l II
2	$\times\!\!\times\!\!\times\!\!\times$	1	2.0"	55%			partings					N/A	N/A
	***************************************	'	MC	55%								IWA	IN/A
- 3	$\times\!\!\times\!\!\times\!\!\times$					· ·	1.						1
	XXXXXX												
4							1.						
	***************************************				Brown	Moist	1' same as a	above			Fill		
5	⋘⋘					to Wet							
- 3	888888				Black		Cilty fine co	d (noo	ibly four	ndry sand), no odors	Fill		
					DIACK		Silly life Sai	iu (pos	sibiy louli	idiy sand), no odors	1-111		
- 6		2	2.0"	53%								N/A	N/A
	$\bowtie$		MC				l						
7											[	. 1	
	XXXXXX												
8	*****												
					Grayish	Wet	0.7' possible	fall in			Fill		
9	XXXXXXX				Brown	*************				######################################			
					Black		1.3' Silty Fin	e Sand	, some g	ravel in top 4", sheen,	SM		
10			2.0"				slight coal ta	ar odor					
		3	MC	50%								N/A	N/A
11							·						-
- ''													
												1	. 1
12					Disale	10/-4	4.51.55				CM		-
					Black	Wet	1.5' same as	s above	:		SM	ĺ	
13		l											
			1				1 EL C			41.00.00.00.00.00.00.00.00.00.00.00.00.00	<u> </u>		
14		4	2.0"	75%	Black	]	tar odor	ıy, piasi	uc, soπ, s	sticky, sheens, strong coal	ML-CL	N/A	N/A
		l	MC	' "			lai ouoi					' ' '	"''
15		I	l .	[	İ		1						
	XIIXIIX	-											
16		L								· 		L	L
					Black	Wet	1		Silty Sand	d & Gravel, sticky, sheens,	SM-GM		
17		1					coal tar odo	r.				l	
		1	1									İ	
18		1	2.0"		Gray		1.4' Silty Cla	y to Cl	ayey Silt,	plastic, sticky, soft to	ML-CL		1
	THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE P	5	MC	75%		,	slightly firm					N/A	N/A
10		l					1						
19		l		]							[		
20		1		1								1	
20	2º MINNING												
	End of Boring @ 24' bgs												
										LOITE NO CONTROL			
COMN	MENTS:						racked direct	-push r	ıg;	SITE NO.: C915299A			
		2"φ Ι	PVC mo	nitoring we	II MW-106 i					BORING NO	).: SR	-106	;
		BHS	= Bag l	Headspace	NR = No	t Recorded	d PID Probl	ems		201.110 110	50	. 50	

			_		L pepar unterte	<i>,</i> 1				SOIL BORIN		•	
			2 ،	NEW YORK	Department of Environmenta Conservation	al				BORING NO: SB-106	-		
PROJECT: 31 Tonawanda Street C					Off-Site - Remedial Investigation				SHEET: 2 of 2				
LIENT:		NYS	DEC							SITE NO.: C915299A			
RILLIN	G CONTRA	СТО	R:	TREC Env	/ironmenta	ıl				BORING LOCATION:			
ROUN	OWATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/18	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/18	/20	
					DIA.		2"			DRILLER:	Eric Han	nman	
					WT.				:	GEOLOGIST:	Steven N	Moeller	ſ
					FALL					REVIEWED BY:			
		SA	MPLE				,		DESCR	IPTION			
DEPTH	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			MATE	RIAL	uscs	PID	(ppr
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								End	Of Rutin	d (a) 24 Das			
~~										g @ 24' bgs			
COM	MENTS:				a Geoprobe		tracked direct			g @ 24 bgs SITE NO.: C915299A			

## 57-71 TONAWANDA STREET SITE NO. C915024

### 1989 CRA SITE INVESTIGATION REPORT

**TABLE 2** MONITORING WELL STRATIGRAPHY

Well Description	Depth (BGS)	Material Description
MW1-89	0' - 0.2'	black moist gravelly sand fill
	0.2' - 1.5'	brown dry silty sand fill, with many large stones and some bricks, cinders, concrete rubble, and lumps of silty clay
	1.5' - 6.0'	brown dry clayey silt fill, with some sand, many large stones and some concrete rubble
	6.0' - 10.0'	brown moist clayey silt fill, with some gravel, concrete and asphalt rubble, stones, rocks, and wood fragments
	10.0' - 12.0'	brown moist silty clay fill, with some stones, rocks, gravel, cinders, ash, and wood fragments

Notes:	<ul> <li>static water level</li> </ul>	7.0 ft. BGS*
	<ul> <li>bottom of well</li> </ul>	11.3 ft. BGS
	<ul> <li>top of well</li> </ul>	2.9 ft. AGS**
	<ul> <li>top of sandpack</li> </ul>	7.3 ft. BGS
	<ul> <li>screened interval</li> </ul>	11.0 - 9.0 ft. BGS
	<ul> <li>total well length</li> </ul>	13.9 ft.

BGS - below ground surface AGS - above ground surface

TABLE 2 MONITORING WELL STRATIGRAPHY

Well Description	Depth (BGS)	Material Description
MW2-89	0' - 0.3'	black moist gravelly sand fill
	0.3' - 1.5'	brown dry silty sand fill, with some gravel, some cinders, stones, rocks, concrete rubble, and trace brick material
	1.5' - 6.0'	brown dry gravelly sand fill, with trace silt, some concrete rubble, asphalt rubble, stones and rocks
	6.0' - 9.0'	brown wet sandy silt fill, with some gravel and clay lumps and trace wood fragments
	9.0' - 11.0'	same as above except soil has an iridescent sheen and diesel odor

Notes:	- static water level	6.0 ft. BGS*
	<ul> <li>bottom of well</li> </ul>	8.0 ft. BGS
	<ul> <li>top of well</li> </ul>	2.3 ft. AGS**
	<ul> <li>top of sandpack</li> </ul>	4.0 ft. BGS
	<ul> <li>screened interval</li> </ul>	7.7 - 5.7 ft. BGS
	<ul> <li>total well length</li> </ul>	10.0 ft.

- BGS below ground surface AGS above ground surface

#### 1992 NYSDEC PHASE II INVESTIGATION REPORT

DATE	
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STARTED 9-26-90
FINISHED 9-26-90



#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

HOLE NUMBER GW-	!
SURFACE ELEVATION	
GROUNDWATER	

ROJECT <u>Fedders</u> Auto	LOCATION HW comes a lot.
4912040	10 € 0/ 40.20

screen  4.9'  Sold  18. 14  14.9'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-3.5'  Seal  2.5-4.5'  Seal  2.5-4.5'  Seal  2.5-4.5'  Seal  2.5-4.5'  Seal  2.5-4.5'  Seal  2.5-4			-		16040		10 € 9, 40,20	
0-0.5' Block gravely sand fill  55 1 1 2  55 1 2 1  56-10  55-0.10' Concerte  1.0-1.3' Block sand fill  0-0.7' Black sandy fill with  quasy appearance to 01-1ive  anoma.  0.7'-1.1' Redok have clay fill  41'  55.4' 18 14  55.4' 2.5-2.5'  55 4 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  55.4' 10 10  56.4' 10 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10  57.4' 10	1		SAMPLE TYPE	ш	SAMPLER 0 6 12	SAMPLE ID	FIELD IDENTIFICATION OF SOILS	NOTES
540088		00	55 55 55 55	3 4 5	5 3 1 1 2 1 2 1 1 2 2 1 1 2 7 14 19 20 15 13	5B-1C	0-0.5' Black gravelly sand fill 0.5-0.65' Red brick. 0.65-1.0' Concrete 1.0-1.3' Black sand fill.  SS#2 2-4' 1.1' Recovery 0-0.7' Black sandy fill with greasy appearance + oil-like asoma. 0.7'-1.1' leddish known clay fill w/ krick.  SS#3 4-6' 0.7' Recovery  All Morst reddish known clay- cavit see any foreign fragments renhans its natural 1?)  SS#4 6-8' 0.8' Recovery  All wet reddish known clay w/ no visible signs of fill material. Clay (as in #3) Clay is highly cohesive & moderately plastic.  SS#5 8-10' 1.4' Recovery  All dry reddish known clay, fight, highly cohesive & moderately plastic.  Spears natural. Water is Sifting on top of this layer.  SS#6 9-11'	OVA > 1000 HNU = 15 PAR MOIST.  OUA = 10 HNU = 3 MOIST.  OVA = 0 HNU = 0 HNU = 0 DRY  OVA

CLASSIFICATION/BY\_

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STARTED 9-26-90

FINISHED 9-26-90

SHEET 1 OF 1

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#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

HOLE NUMBER GW-2
SURFACE ELEVATION
GROUNDWATER DEPTH

PROJECT		Auto.	LOCATION HE comes of lot no	2an_
	YPLEOGO		scajacanda Creek.	
WELL SAMPLE	SAMPLER 0 6 12 12 18	PROFILE SAMPLE ID	FIELD IDENTIFICATION OF SOILS	NOTES
600 00 SS	18 24 1 8 12 2 8 4 2 3 3 3 1 4 2 2 5 1 2 6 11 16	7 വല പേരം	SS#Z Z-4' 1.6' Tecovery  0-1.0' Dank brown sandy fill w/ brick, slag, a write ceramic material, black glass (foundry)  1.0-1.6' Black sandy clay fill, quary in appearance but not in touch.  SS#3 4-6' 0.4' Recovery.  Limited sample volume: will spoon again.  0-0.4' Wet black sandy fill.  2nd time retrieved nothing but water.  SS#4 6-8' 0.4' Recovery.  Appears to be naterial treat was Stuck in bit. Auger cuttings indicate saturated black sandy fill, spoon shows damp sandy clay fill.  SS#5 8-10' Ho recovery.  Try again - 240 spoon in Saturated gravely sand fill.  SS#12 10-12' 1.0' Recovery.  All wood, as in Gw. 3b.  SS#7 1Z-14' 1.0' Recovery  0-0.4' Reddien brown sandy clay.	HNU=10 PPM Both only @ Very end d SPEON. HOIST.  HAL=0 Damp  HNU=0 Saturated.  UVA=10 HNU N/A  OVA=10 HNU =0 HNU =0 HNU =0 HNU =0
			0.4-0.9' wood 0.9-1.0' Black clay w/ wood.	HALL S O
	WELL DIAGRAM SS	WELL DIAGRAM WY SAMPLER  O	WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  WELL DIAGRAM  DIAGRAM  WELL DIAGRAM  DIAGRAM	WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM DIAGRAM WELL DIAGRAM WELL DIAGRAM WELL DIAGRAM DIAGRAM WELL DIAGRAM DIA

C-3 CLASSIFICATION/BY

R. Wat

STARTED 9-25-90 FINISHED 9-25-90 SHEET OF 2



#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

SURFACE ELEVATION GROUNDWATER N/A

PROJECT <u>Fedders</u> who <u>YPGO40</u>					) to	LOCATION SE comes of Lot a	
				776040		<u>Scajacanda Creo</u>	<u>k.                                      </u>
DЕРТН — FT	WELL DIAGRAM	SAMPLE TYPE	SAMPLE NO.	BLOWS ON SAMPLER  0 6 12 12 18		FIELD IDENTIFICATION OF SOILS	NOTES
				18 24		<u> </u>	i i i
5-		55 \$5 \$5	して 3	7 8 13 21 5 3 1 3 3 2 1 2	56-3A 56-3B 56-3C	Black sandy Fill w/ some clay and gravel. Contains brick, glass, slag, greenstone, etc.	OVA = 3ppm HNu=0ppm DRY
ю-	ABAN DONED	555 555 555	5	2 3	<del>58-30</del> m	SS#Z Z-4' 2.0' Recovery.  Same fill @ as 0-2'. clay seam 3" thick in middle is part of the Fill  55#Z 4-10' 05' Recovery.	0VA = 0 HNu=0 MOIST.
25-						All clay fill. Must navepushed a store because the top of true spoonwas clean. Clay matrix is reddight brown with high cohesion of moderate practicity. Contains medium + coarse sand, coal fragments of small trock fragments. Auger cuttings indicate that remainder is black paindy fill as above.  SS#4 10-8 0.2' Recovery.  Same clay fill as #3. Spoon is dry inside-not picting up soil.	Moist.
40088						All "natural" reddish trawn Hoist clay with mina fine + nedium sand. Same clay as peen in B-1.  SS# Le 11-13' 1.1' Recovery  All clay as in #5 but with black greasy Material + organic mater @ 0.8'. Also a wood flag. @ 0.4' and a coal flag. (1/2") @ 0.0'. Probably natural but were	NA = 0 HHL = 0 MOISE

DATE

STARTED 9-25-90



#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

HOLE NUMBER 460-3 Q
SURFACE
ELEVATION \_\_\_\_
GROUNDWATER N/A

PROJECT Fedders Auto LOCATION							
	<u> 470000</u>						
DEPTH - FT	WELL DIAGRAM	SAMPLE	SAMPLE NO.	BLOWS ON SAMPLER 0 6 12 12 18 18 24	PROFILE	FIELD IDENTIFICATION OF SOILS	NOTES
	A6			12/18 15/24		SS#7 13-15' 2.0' Recovery.  Natural material.  0-0.5' Readish brown clay as above o.5-1.1' Organic rich clay. Reddon brown w/black rothes. Contains wood + plant fragments & cool.  1.1-1.3' Black peat moss w/ coalified plant fragments.  1.3-20' Organic rich sand. Fine It brown sand w/ rootets and Plant fragments. Also contains numerous (1070) shells (25mm) of apothopods & knachiopods.  Ho water to speak of so w'ill abandon this hole and move towards the chek.	Moist OVA = 0 HNV = 0
540088	3					2.14	

recycled paper

CLASSIFICATION/BY Freelogs and environment ecology and environment ecology and environment

DA	TE
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STARTED 9-25-90

FIN	SH	ED_	9-25.90	
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## E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

HOLE NUMBER GW-36 SURFACE ELEVATION GROUNDWATER 5

				(	1	
PROJEC	ст <u>_</u> <u> </u>	redders Aut	-0	LOCATION SE concer of lot rear		
	<u> </u>	P6040		Scajaranda Creek.		
WELL DIAGRAM	SAMPLE TYPE SAMPLE NO.	BLOWS ON SAMPLER 0 6 12 12 18 18 24	PROFILE CI SI SA Gr	FIELD IDENTIFICATION OF SOILS	NOTES	
	<del>-   -</del>	10 24			E.J.	
	\$ 1	(e Z 2 4 (e 10 14 15 )		SS#1 4-6' 1.3' Recovery.  (Augused to 4')  Top 0.4' is gravelly sand fill  (black) similar to aw-3a (probably  from inside accept bit. Bottom  0.9' is reddish bernen. day w/  creas of black sand (ontains  1090 nedium to coarse sand +  1090 gravel. Very bottom in  wet sand fill.  SS#2 (e-8' 1.4' Recavery.  A soliol case of wet wood.  Has an odd anoma. (creosote?)  CANT AUGER THROUGH THE WOOD  SO MOVE UP 6' AND TRY  AGAIN.	Monatorial Management of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control	
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STARTED 9-25-90
FINISHED 9-24-90
SHEET 1 OF 1

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ŀ	J.
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#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

	orner of lot near		
1 926040	Brown da Ciarle		
	Scajacanda Creek.		
WELL DIAGRAM WALL DIAGRAM WALL OF BLOWS ON SAMPLER PROFILE FIELD IDENTIFICATION OF SAMPLER OF SAMPL	OF SOILS NOTES		
Third try @ GW-3  Augen to y' then  SS 1 2 1  SS 1 1 2  All black sandy fil  alen before. Contain  gnavel, brick, wood,  Wet below 5'  SS 2 1 1  SS 5 1 1  SS 4 1 0  SS 5 1 1  SS 5 2 1  TDT14.5'  Screen  4.5.14.5'  Screen  4.5.14.5'  Scand  3-4'  SS #3 8-10' 1.8' Recover  Solunated.  O-0.5' Sandy clayey  O.5-1.1' Redoin brown +  Solunated.  SS #4 10-12' O.6' Recover  Spon in all wet. wanother spoal + the  Sometrium  row relowered 1.6  14.5' Contains:  O-0.5 Brown sar  clay t brick for  O5-1.1 Black rep  in-1.4 Claying to  14-1.4 Clay	as we've  as we've  be timestone  etc.  water table  rear 5!  HUL=0  OVA & I rpm  Tragnents  HNL=0  OVA & I rpm  SATURATED  HNL=0  OVA & I rpm  SATURATED  HNL=0  OVA = Frym  Saturated.  HNL=0  OVA= Frym  Saturated.  Wet to  Saturated.  dy fill w/  guents.  mic-rich  ext moss  udy clay,  w/ wo 30%  do gastorads.		

DATE	
STARTED 9-25-90	٥
FINISHED 9-25-90	2



#### E + E DRILLING AND TESTING CO., INC. SUBSURFACE LOG

HOLE NUMBER B-1
SURFACE
ELEVATION
GROUNDWATER
DEPTH

PROJECT <u>Fedders</u> Auto					tuto	LOCATION Near enhance gate	<u>~</u>	
			'	P12040		West Ave.		•
	(	<del>1</del>	1				7	_
1		l	Ŏ.	BLOWS ON	I .	•		:4
1	WELL DIAGRAM	12,4	ш	SAMPLER		FIELD IDENTIFICATION OF SOILS	NOTES	,
ЕРТН		SAMPLE	귤	0 6 6 12	SAMPLE IP	FIELD IDENTIFICATION OF SOILS	NOTES	F15
E E		တြ		12 18	Cị Sị Sại Gṛ			Actions.
		<u> </u>	S	18 24				T. A.
-		SS	1	36 3	5B-4A	55#1 0-2' 1.0' Recovery		-
_				4 6			HNU= Oppm	5-1-
_	BOREHOLE	SS	2	3 41	SB-4B	6" of black, damp silty sand	(30-40 ppm in	decimal.
_	FILLED			Q 10		fill material w/ knick fragments	hole).	-
5-	CUTTING)	55	3	4 6	SB-4C	followed to 1.6' with reddish	OVA - 0	ــــــــــــــــــــــــــــــــــــــ
_	4 POUT	133		11 14		Drown clay fill. Clay is		
_		55	4	12 12	SB-40	moderate to highly collepive with		
-			1	16 20		a moderate Plasticity + contains		-
-						<10% angular black chert fragment	1	
10-						(coarse gravel size) + tan sand		-
-								Ļ
-						lenses as well as mina tericle	,	_ _
_						Fragments.		
-				£		1		بل
-						55#2 2-4' 1.3' Recovery	,	+
_						All reddish known damp	HHU < 1 ppm	-
_								-
_						"natural" clay with black silt	OVA = 0 ppm	-
						mothed turoughout. Also contains		. <b>Ļ</b>
-						45% medium+coance sand	-	-  -
-						throughout.	*	
_						SS#3 4-ce' 1.5' Teconery_		-
						7- 0-11	le constant de la con	E interes
·						Top 0.4' is clay as above mixed	HHU = 40-50pg	
						I will sing - have to tell if it	OVA = 0 ppm	+
						has fallen in from above a not Remaining 1.1' is clay as above.	(water vapor)	<u>Ļ</u>
						Remaining 1.1' is clay as about	(whom ought)	
						( like 2-41). Dry.	i i	ئا:
_								$\vdash$
						55#4 6-8' 1.8' Recovery	HHu = 20-30	
						Same clay as above but dry.	OVA +1 ppm	
	'						(water wayon)	$\vdash$
_						•		1-
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						CLASSIFICATION/BY		

# 1998 RETEC ENGINEERING INVESTIGATION

#### SOIL BORING LOG

	RETEC Er	ngineering, P	P.C.				
PROJECT NO: 3 - 2111 - 600 (3 -		3 - 3540 - 102 )	DATE:	December 12, 1998	Ground Elevation:	~ 579	
CLIENT: National Fu		National Fuel G	National Fuel Gas		Mark Hofferbert	Depth to Groundwater :	~8
SITE:		Scajaquada Cre		EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION	: 	West Bank near	West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565
DEPTH	SAMPLE	PID	SOIL		SOIL	MONITORING	
BGS	INTERVAL	HEADSPACE	LITHOLOGY		DESCRIPTION	WELL	
(feet)		(ppm)			LOG	CONSTRUCTION	
							:
2				No	o Recovery	N/A	
4			:				
***							
6		6.5	;				
				М	isc. Industrial Fill and Soil		
8			-	1	Gravel, soil, brick and concrete.		
					No Sheen / No Odor. Wet at 8 ' BGS.		•
			•		were bos.		
10		1.2					
and the same of th							
						Appendix A. 1 villabri	
14		3.2		G	ravel and Sand		
					No Sheen / No Odor.		
MANAGEMENT.							
16						- Managadurus - Americana	
Management =							
18		51.8		G	ravel and Sand Thin Lenses of Hydrocarbon NAPL.		
20							
			PARTITURE ENGINEERING PER PER PER PER PER PER PER PER PER PER	er Er	nd of Boring		
24							
_							
sanar sanon							
26							
Comments:							

#### **SOIL BORING LOG**

PROJECT N		ngineering, P		DATE:	December 12, 1998	Cr/	ound Elevation :	~ 579
CLIENT:		National Fuel G		GEOLOGIST:	Mark Hofferbert		oth to Groundwater :	~ 8
SITE:		Scajaquada Cre		EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel		oundwater Elevation:	~ 571
LOCATION:		West Bank near		OPERATOR:	Maxim Technologies		ekwater Elevation :	~ 565
				**************************************				
DEPTH	SAMPLE	PID	SOIL		SOIL		MONITORING	
BGS	INTERVAL	HEADSPACE	LITHOLOGY		DESCRIPTION	•	WELL	
(feet)		(ppm)	:		LOG		CONSTRUCTION	
		4.2					N/A	
2		7.2					19/24	
4				М	lisc. Industrial Fill and Soil			
			-		Gravel, soil, brick and concrete.			
					No Sheen / No Odor. Wet at 8 ' BGS.			
6		16.5			netato bos.			
			1					
8								
10		7.2		G	ravel and Sand No Sheen / No Odor.			
					No Sheen in No Outr			
12								
		1000 ÷		G	ravel and Sand			
					Hydrocarbon NAPL.			
16								
				En	nd of Boring Boring Collapsed)			
				(1.	ooring Conapsed)			
18								
20								
20								
22								
22								
24								
Comments:				<u> · · · · · - · · · · · · · · · · · ·</u>				

#### SOIL BORING LOG

PROJECT N	0:	3 - 2111 - 600 (	3 - 3540 - 102 )	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:			GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8	
SITE:		Scajaquada Cre	ek	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:		West Bank near	West Avenue	OPERATOR:	Maxim Technologies .	Creekwater Elevation :	~ 565
DEPTH	SAMPLE	PID	SOIL		SOIL	MONITORING	
BGS		HEADSPACE	LITHOLOGY		DESCRIPTION	WELL	
(feet)		(ppm)			LOG	CONSTRUCTION	
2		6.0				N/A	
				M	isc. Industrial Fill and Soil		
4					Gravel, soil, brick and concrete. No Sheen / No Odor.		
***************************************					Wet at 8 ' BGS.		
6		3.6					
		3.0					
8							
						The Control of Control	
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10		4.1		G	ravel and Sand		
***					No Sheen / No Odor.		
12						<del></del>	
14		180		G	ravel and Sand		
		100		J	Hydrocarbon NAPL.		
16							
						MA AND THE REAL PROPERTY AND THE PROPERT	
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18		215		C	ay		
Magazin may Arek					Hydrocarbon NAPL.		
20				T-	d of Boring		
Mark 4: 40				E	a or Soung		
24							
26							

#### **SOIL BORING LOG**

R	EIECE	igineering, P	.c.				
PROJECT NO:		3 - 2111 - 600 (	3 - 3540 - 102 )	DATE:	December 12, 1998	Ground Elevation :	~ 579
CLIENT:		National Fuel G	as	GEOLOGIST:	Mark Hofferbert	Depth to Groundwater :	~ 8
SITE:		Scajaquada Cre	æk	EQUIPMENT:	2 inch x 4 foot Direct Push Core Barrel	Groundwater Elevation:	~ 571
LOCATION:		West Bank near	West Avenue	OPERATOR:	Maxim Technologies	Creekwater Elevation :	~ 565
DEPTH	SAMPLE	PID	SOIL	V	SOIL	MONITORING	
BGS I	NTERVAL	HEADSPACE	LITHOLOGY		DESCRIPTION	WELL	
(feet)		(ppm)			LOG	CONSTRUCTION	
				:			
<del></del>							
2		5.1				N/A	
_			r			4	
4			nue.	M	isc. Industrial Fill and Soil		
- :					Gravel, soil, brick and concrete. No Sheen / No Odor.		
					Wet at 8 ' BGS.		
6		4.9					
8							
AMARI MAY							
10		3.4		Gı	ravel and Sand		
					No Sheen / No Odor.		
American 1							
12							
		er. y-management	-				
No. 100. 100							
		80.5		C.	ravel and Sand		
14		80.5		G	Hydrocarbon NAPL.		
					-1, 4.00		
16				En	d of Boring		
				(B	foring Collapsed)		
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ton a subset							
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				•			
24							
and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th							
26							
Comments:							

## 2020 BE3 REMEDIAL INVESTIGATION REPORT

Borehole ID: BH-01

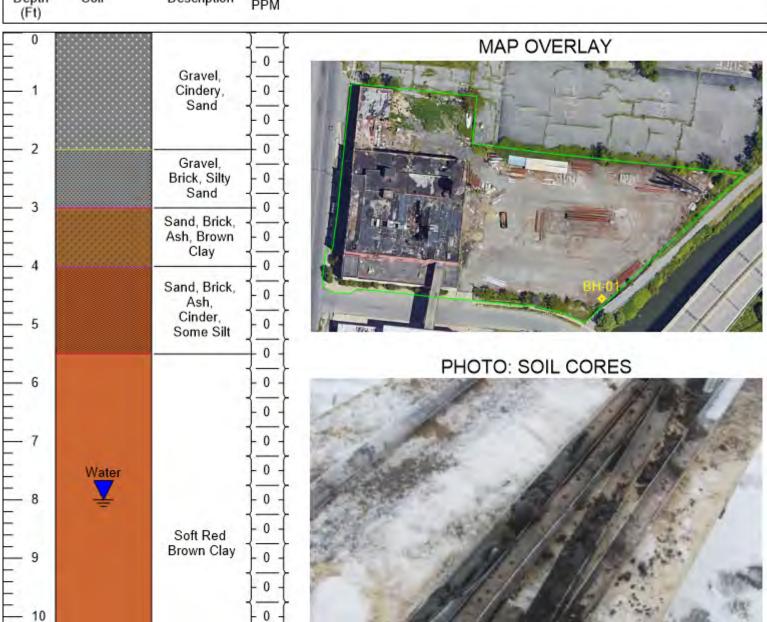
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/17/2019 Geologist\Engineer: Peter Gorton Location: 42.930471° -78.895773°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1039-1101

Borehole
Depth Soil Description PPM



Project: 57 - 71 Tonawanda

Client: Eran Epstein

11

12

Address: 57-71 Tonawanda Street Buffalo, NY 14213

0

0



Borehole ID: BH-02

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019

Geologist\Engineer: Peter Gorton Location: 42.930664° -78.895301°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1045-1130

Borehole PID Depth Soil Description PPM (Ft)



PHOTO: SOIL CORES



Project: 57 - 71 Tonawanda

Client: Eran Epstein

9

10

11

12

Address: 57-71 Tonawanda Street Buffalo, NY 14213

Gravely

Sand with some Silt

Red-Brown

Clay

Very Wet Red-Brown

Clay

0

0

0

0

0

0

0

0

0

0

0



Borehole ID: BH-03

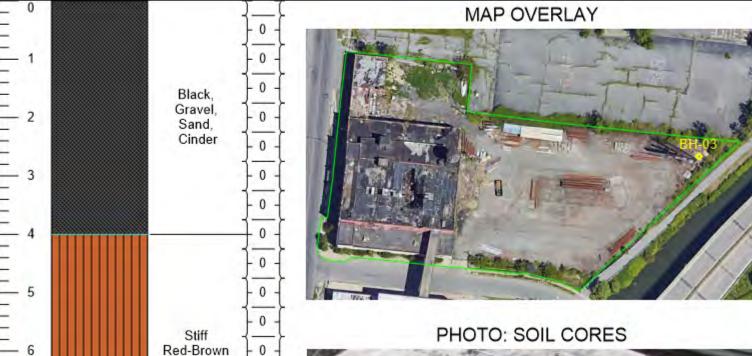
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930909° -78.895107°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1045-1130

Borehole
Depth Soil Description PID
(Ft)





Project: 57 - 71 Tonawanda

Client: Eran Epstein

9

10

11

12

Address: 57-71 Tonawanda Street Buffalo, NY 14213

Clay

Soft

Red-Brown

Clay, Moist

0

0

0

0

0

0

0

0

0

0



Borehole ID: BH-04

Drilling Company: Nature's Way

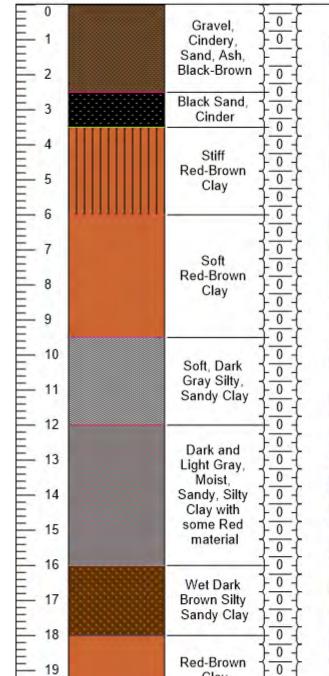
Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/17/2019

Geologist\Engineer: Peter Gorton Location: 42.930777° -78.895483°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1040-1250

Borehole PID Depth Soil Description PPM (Ft)



# MAP OVERLAY





Project: 57 - 71 Tonawanda

Client: Eran Epstein

20

Address: 57-71 Tonawanda Street Buffalo, NY 14213

Clay



Borehole ID: BH-05

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930959° -78.895565°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions

Time: 1330-1436

Borehole			PID
Depth	Soil	Description	PPM
(Ft)			L L IVI

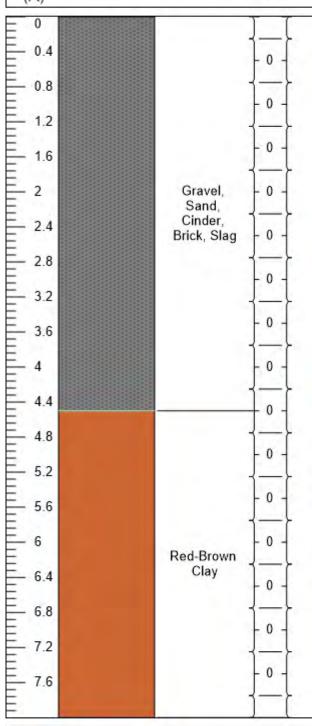




PHOTO: SOIL CORES



Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: BH-06

4.4

4.8

5.2

5.6

6

6.4

6.8

7.2

7.6

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930997° -78.895728°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1436-1500

Borehole
Depth Soil Description PPM
(Ft)



0

0

0

0

0

0

0

Red-Brown Clay

Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: BH-07

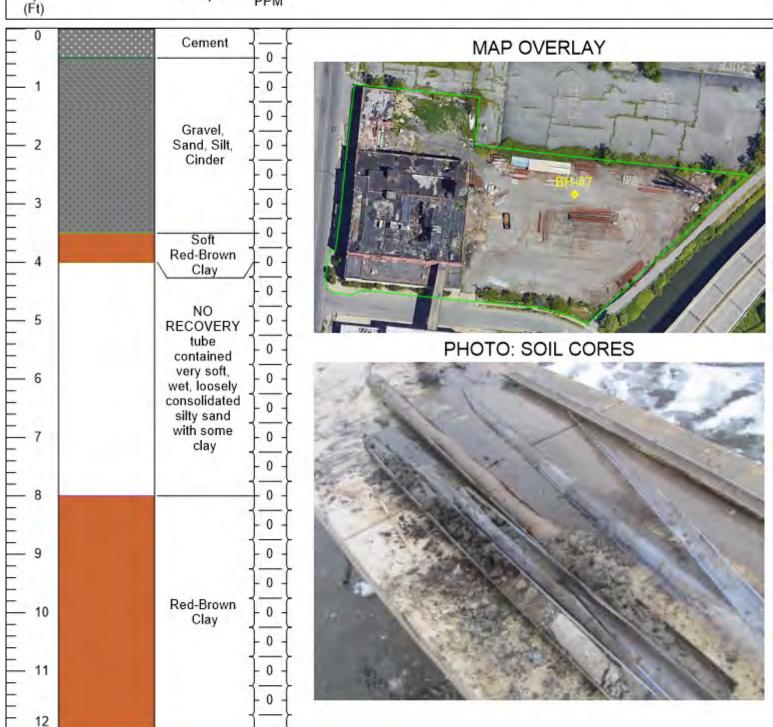
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/17/2019 Geologist\Engineer: Peter Gorton Location: 42.930872° -78.895858°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1217-1350

Borehole
Depth Soil Description PPM



Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: BH-08

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930697° -78.895854°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1350-1500

Borehole
Depth Soil Description PPM



Project: 57 - 71 Tonawanda

Client: Eran Epstein

11

12

Address: 57-71 Tonawanda Street Buffalo, NY 14213

Soft Red-Brown

Clay

0



Borehole ID: BH-09

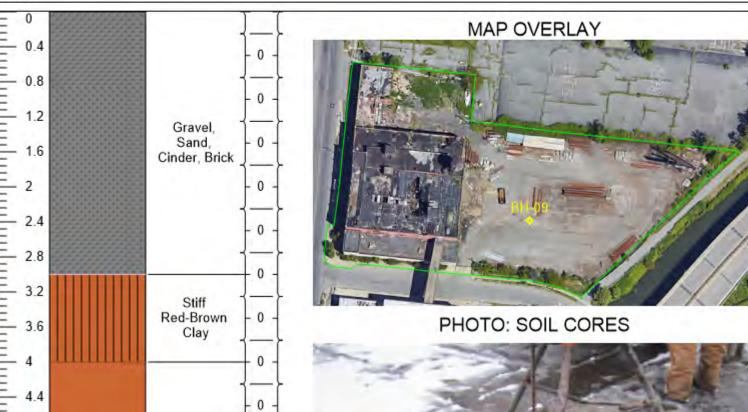
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930655° -78.89609°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1500-1530

Borehole
Depth Soil Description PPM
(Ft)





Project: 57 - 71 Tonawanda

Client: Eran Epstein

4.8

5.2

5.6

6

6.4

6.8

7.2

7.6

Address: 57-71 Tonawanda Street Buffalo, NY 14213

0

0

0

0

0

0

Red-Brown

Clay



Borehole ID: BH-10

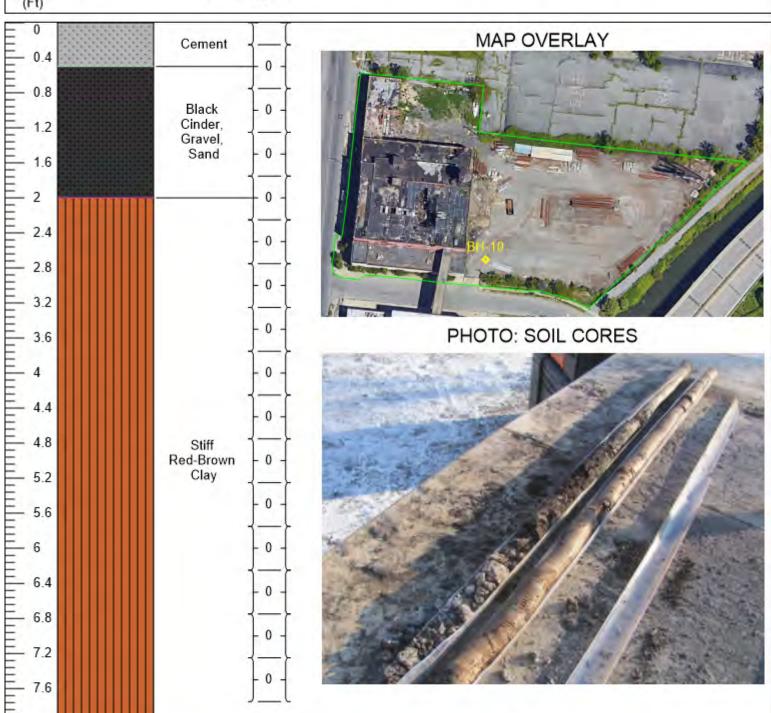
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.930566° -78.896377°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 0920-0950

Borehole
Depth Soil Description PID PPM



Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: BH-11

Drilling Company: Nature's Way

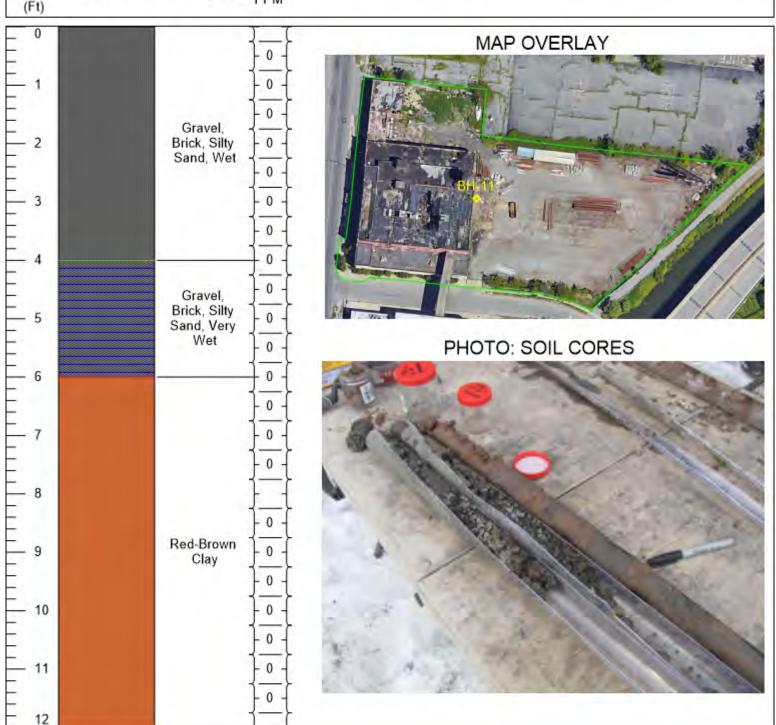
Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton

Location: 42.930822° -78.896412° Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions

Time: 1020-1210

Borehole			DID
Depth (Ft)	Soil	Description	PID
			I I IVI



Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: BH-12

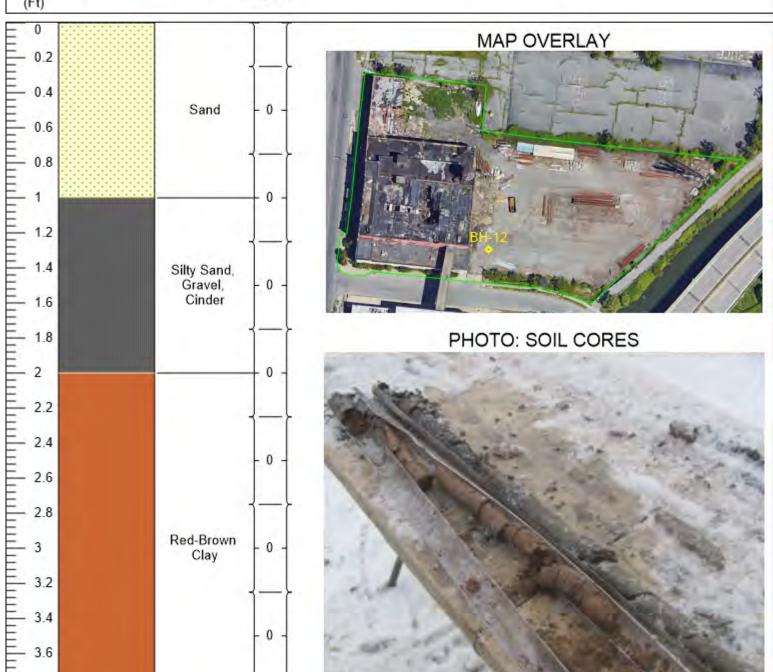
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/19/2019 Geologist\Engineer: Peter Gorton Location: 42.930587° -78.896337°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1210-1300

Borehole
Depth Soil Description PID
(Ft)



Project: 57 - 71 Tonawanda

Client: Eran Epstein

3.8

Address: 57-71 Tonawanda Street Buffalo, NY 14213



Borehole ID: BH-13

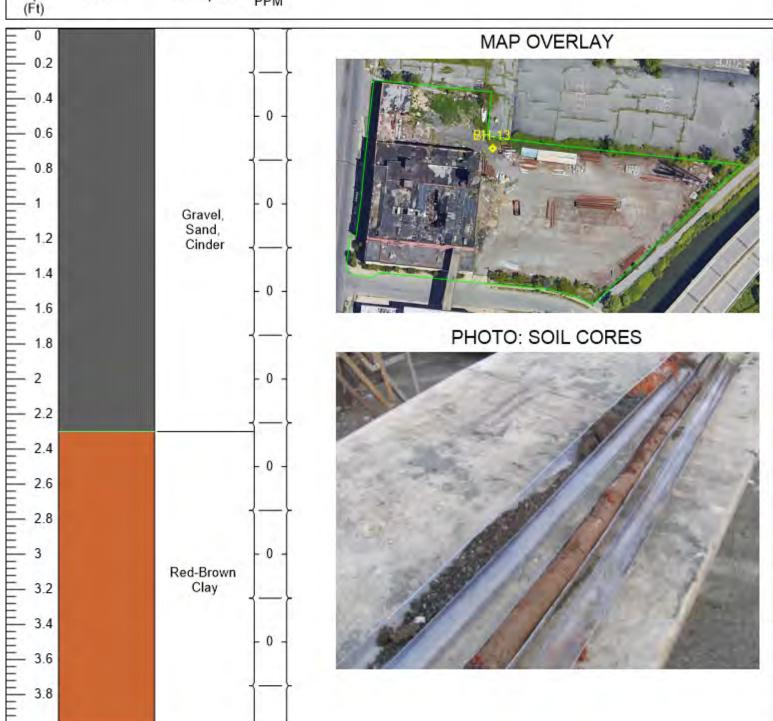
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: 25°F, Windy Drill Date: 12/18/2019 Geologist\Engineer: Peter Gorton Location: 42.931023° -78.896338°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1500-1600

Borehole
Depth Soil Description PPM



Project: 57 - 71 Tonawanda

Client: Eran Epstein



Borehole ID: SSB1

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: Indoors, Cold Drill Date: 03/18/2020

Geologist\Engineer: Peter Gorton Location: 42.930623° -78.896554°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1230-1250

Borehole PID Depth Soil Description PPM (Ft)

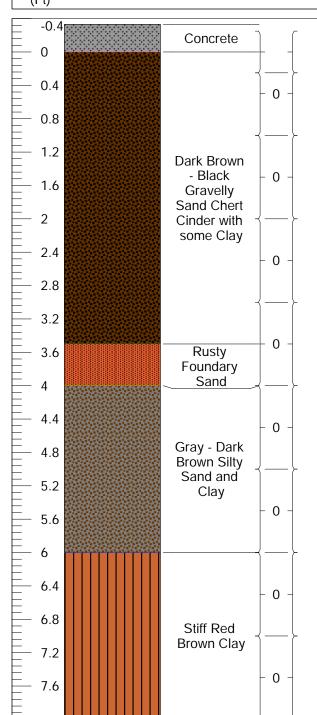






PHOTO OF CORES

Project: 57 - 71 Tonawanda

**Client:** Eran Epstein



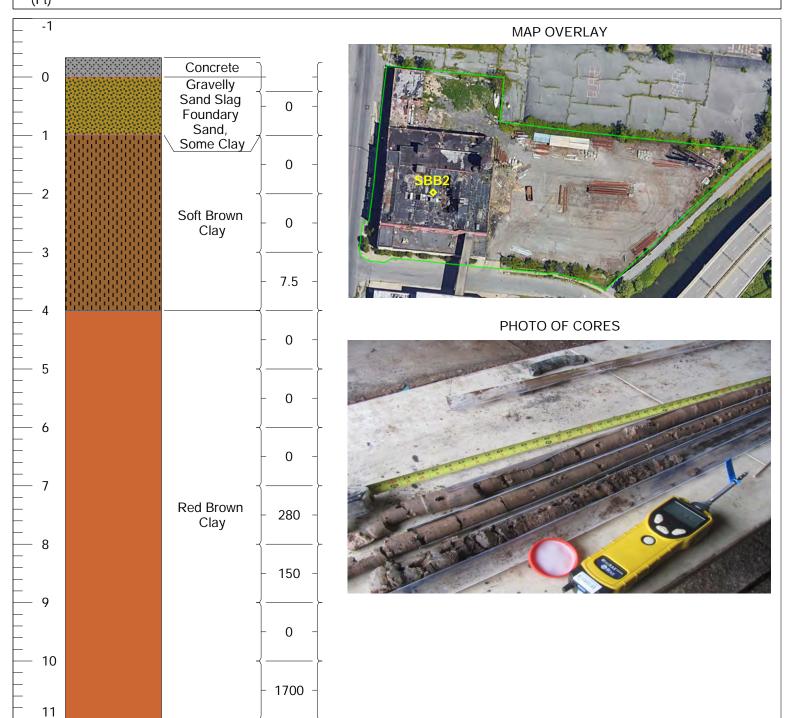
Borehole ID: SSB2

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: Indoors, Cold Drill Date: 03/18/2020 Geologist\Engineer: Peter Gorton Location: 42.930713° -78.896765° Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 1250-1320

Borehole
Depth Soil Description PID
(Ft)



Project: 57 - 71 Tonawanda

**Client:** Eran Epstein



Borehole ID: SSB3

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: Indoors, Cold Drill Date: 03/19/2020 Geologist\Engineer: Peter Gorton Location: 42.930671° -78.897005° Analysis: 375, Metals, PFA's, sVOC, VOC

> Lab: Paradigm Solutions Time: 0830-0920

Borehole
Depth Soil Description PID
(Ft)



0

80

200

300

0

1400

Stiff Red Brown Clay

Red Brown

Clay



Project: 57 - 71 Tonawanda

**Client:** Eran Epstein

10

11



Borehole ID: SSB4

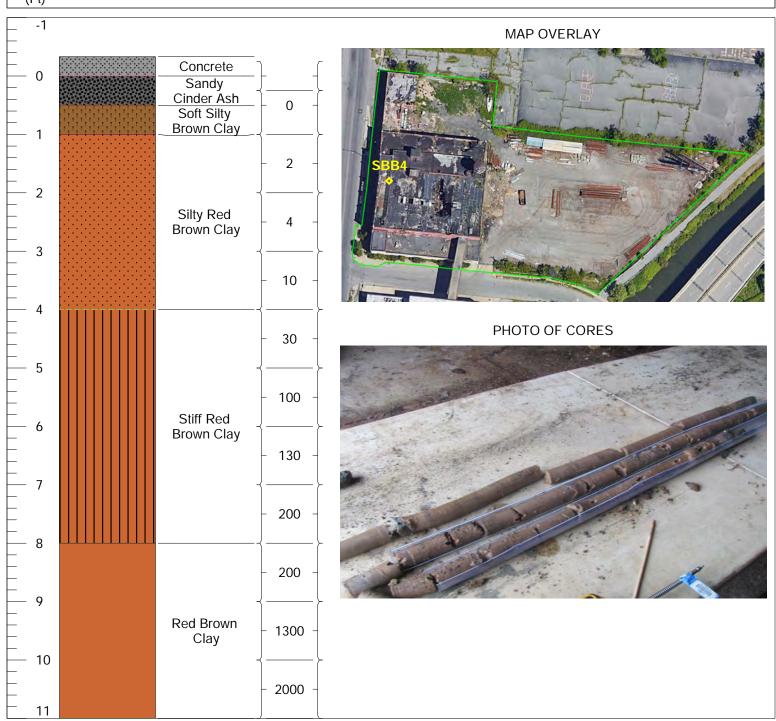
Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: Indoors, Cold Drill Date: 03/19/2020 Geologist\Engineer: Peter Gorton Location: 42.930817° -78.896979°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 0920-0950

Borehole
Depth Soil Description PID
(Ft)



Project: 57 - 71 Tonawanda

**Client:** Eran Epstein



Borehole ID: SSB5

Drilling Company: Nature's Way

Drill Type: 2" Geoprobe Weather: Indoors, Cold Drill Date: 03/19/2020 Geologist\Engineer: Peter Gorton Location: 42.930791° -78.896548°

Analysis: 375, Metals, PFA's, sVOC, VOC

Lab: Paradigm Solutions Time: 0950-1020

Borehole
Depth Soil Description PID
PPM



Project: 57 - 71 Tonawanda

**Client:** Eran Epstein





Depth (Ft) Description TYPE #

Project: 57-71 Tonawanda Street

Address: 57 Tonawanda St. Buffalo NY, 14211

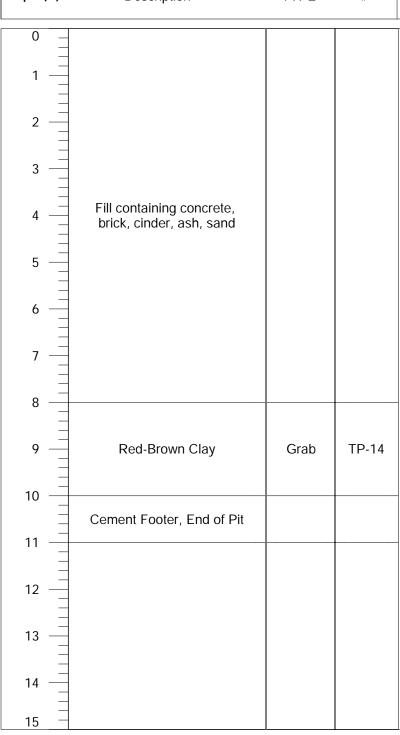
Client: Eran Epstein

Contractor: Nature's Way Contracting

Equipment: Track Hoe

Date: January 8th, 2020 Latitude: 42.931135 Longitude: -78.896398

Longitude: -78.89 Test Pit Name: TP-14





**Test Pit Photo** 

#### **Log Book Description**

Fill including black cinder, sand, concrete rubble and wood.

Concrete footer running East-West inside old building foundation.

See 1981Sanborn Map for historic details.

Sample Collected at 8-9 Feet

Technician On Site: Peter Gorton
On Site Time: 8:00 a.m.
Off Site Time: 3:30 p.m.





Depth (Ft) Description TYPE #

Project: 57-71 Tonawanda Street

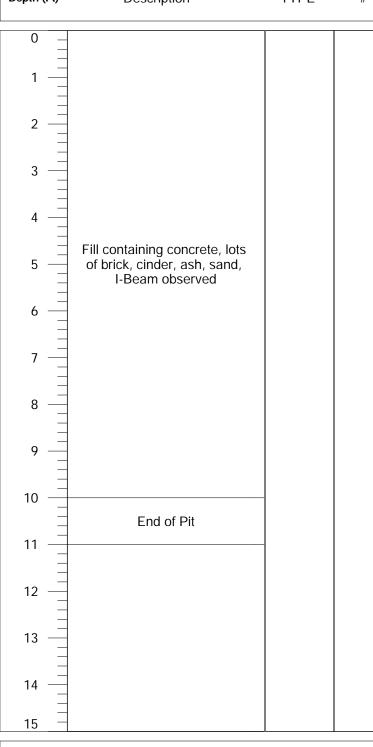
Address: 57 Tonawanda St. Buffalo NY, 14211

Client: Eran Epstein

Contractor: Nature's Way Contracting

Equipment: Track Hoe Date: January 8th, 2020

Latitude: 42.931193 Longitude: -78.896596 Test Pit Name: TP-15





**Test Pit Photo** 

#### **Log Book Description**

Fill consisted of sand, cinder, lots of brick, cement, wood and a foundation wall.

Test pit 6 foot wide, 8 foot long 9 to 10 feet deep.

No sample collected.

Technician On Site: Peter Gorton
On Site Time: 8:00 a.m.
Off Site Time: 3:30 p.m.





Depth (Ft) Description TYPE #

Project: 57-71 Tonawanda Street

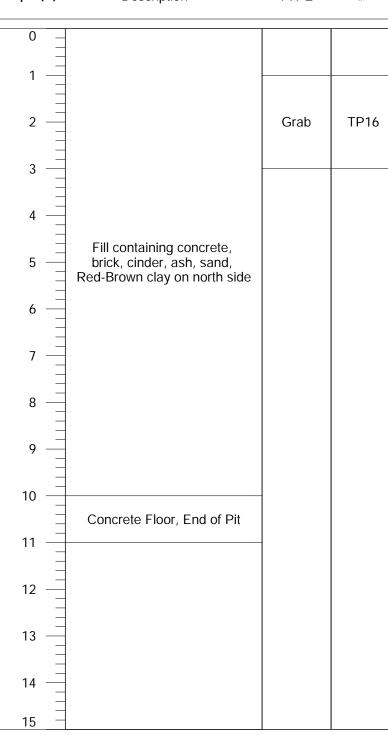
Address: 57 Tonawanda St. Buffalo NY, 14211

Client: Eran Epstein

Contractor: Nature's Way Contracting

Equipment: Track Hoe Date: January 8th, 2020

Latitude: 42.931248 Longitude: -78.896751 Test Pit Name: TP-16





**Test Pit Photo** 

#### **Log Book Description**

Fill consisted of brick, cement, metal, ash, sand and cinder. Cement block wall and Red-Brown clay on north side.

Pit is 6 foot by 6 foot with refusal encountered at 10 feet, observed possible cement floor.

Sample collected between 1-3 feet.

Technician On Site: Peter Gorton
On Site Time: 8:00 a.m.
Off Site Time: 3:30 p.m.





Depth (Ft) Description TYPE #

Project: 57-71 Tonawanda Street

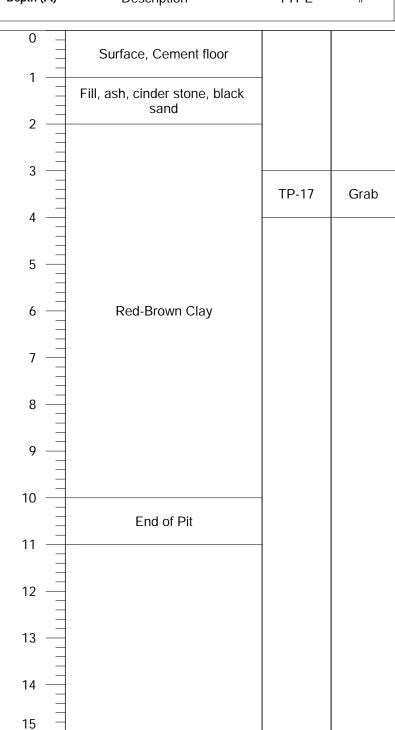
Address: 57 Tonawanda St. Buffalo NY, 14211

Client: Eran Epstein

Contractor: Nature's Way Contracting

Equipment: Track Hoe Date: January 8th, 2020

Latitude: 42.931064 Longitude: -78.896837 Test Pit Name: TP-17





**Test Pit Photo** 

#### **Log Book Description**

Surface feateured a cement floor, 1-2 feet consisted of fill material of ash, black sand, cinder and stone. 2-10 feet consisted of red-brown clay.

Pit is 13 feet long, 7 feet across and 10 feet deep. Pit dug east to west, sample taken from east end. West end had a suspected wood floor.

Sample collected between 3-4 feet.

Technician On Site: Peter Gorton
On Site Time: 8:00 a.m.
Off Site Time: 3:30 p.m.



#### **Test Pit Log**



Depth (Ft) Description TYPE #

Project: 57-71 Tonawanda Street

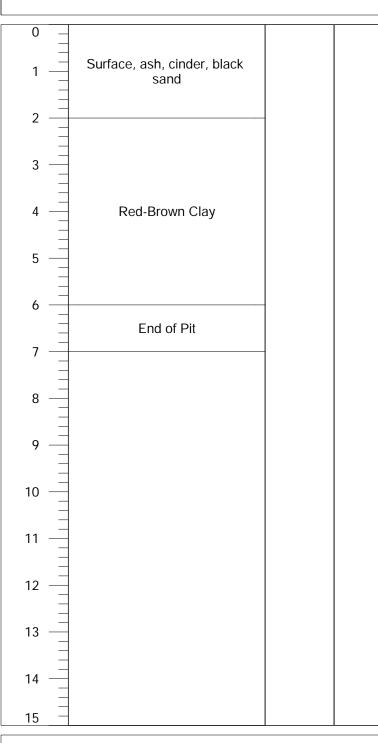
Address: 57 Tonawanda St. Buffalo NY, 14211

Client: Eran Epstein

Contractor: Nature's Way Contracting

Equipment: Track Hoe Date: January 8th, 2020

Latitude: 42.931065 Longitude: -78.89662 Test Pit Name: TP-18





Test Pit Photo

#### **Log Book Description**

Fill at 1-2 feet consisted of ash, cinder and blacks sand. 2-6 feet red-brown clay. Pit is 13 feet long, 5 feet wide and 6 feet deep.

No Sample Collected.

Technician On Site: Peter Gorton
On Site Time: 8:00 a.m.
Off Site Time: 3:30 p.m.



1270 Niagara Street Buffalo, New York, 14213

# 68 TONAWANDA STREET SITE NO. C915316

#### 2014 PANAMERICAN ENVIRONMENTAL LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(710) 621-1050
Project: 68	Tonawa	anda	Street	Sheet: 1 of 1
Client: Way	ne Baco	on &	Ed Hogel	Location: See Associated Figure
Contractor:	Natures	s Wa	ıy	Ground Elevation:
Date Starte	d: 3-5-1	4		Operator:
Date Comp	leted: 3-	-5-14	ļ	Geologist/Technician: Pete Gorton
Bore Hole N				Ground Water:
	Samp			Description
Depth (FT)	NO TY	YPE		Description
0				
1			0-2 - fill - blac	k, gravely, sand and ash
2				
3			2-4 - sand and	d gravel
4				
			4-6 - fill - blad	ck silty sand with gravel
5				
6				6
7			6.8 red clay	soft to firm towards 8 feet
, r			0-0 - Ted Clay	Soit to lilli towards o leet
8				
9			8-12 - reddish	-brown clay
10				
10				
11				
12 Borehole end				s at 12 foot

Comments: No sample collected. No PID readings observed and No odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(716) 821-1650
Project: 68	Tonav	wanda	Street	Sheet: 1 of 1
Client: Way	ne Ba	con &	Ed Hogel	Location: See Associated Figure
Contractor:	Natur	es Wa	ау	Ground Elevation:
Date Starte	d: 3-5	-14		Operator:
Date Comp	leted:	3-5-14	4	Geologist/Technician: Pete Gorton
Bore Hole N	Numbe	er: <b>BH</b>	-2	Ground Water:
Donth (FT)		nple		Description
Depth (FT)	NO	ITPE		Bosciption
1				
			0-2 - fill - sand	dy silt
2				
3	3 2-3.5 - black a			ash/cinder fill with wood
4			4.0 fill bloc	
5				ck silty sand with gravel
6			3.5-8 - red cla	ıy
7				
8			End of boring	
9				
10				
11				
12			Borehole ends	s at 12 foot
12 Boronoic Cria				

Comments: No sample collected. No PID readings observed and No odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(716) 821-1650
Project: 68	Tonav	wanda	Street	Sheet: 1 of 1
Client: Way	ne Ba	con &	Ed Hogel	Location: See Associated Figure
Contractor:	Natur	es Wa	ay	Ground Elevation:
Date Starte	d: 3-5	-14		Operator:
Date Comp	leted:	3-5-14	1	Geologist/Technician: Pete Gorton
Bore Hole N	Numbe	er: <b>BH</b>	-3	Ground Water:
Depth (FT)		nple TYPE		Description
0	INO	IIFE		2 000p
1			0-1 - fill - blacl	k sandy silty gravel with cinder
_				
2			1-2 - brick	
3			2-2.5 - grey sa	andy with gravel
			- J - J	
4			2.5-4 - red cla	y. Borehole end at 4 feet
5				
6				
7				
8				
0				
9				
10				
11				
12				

Comments: Collected sample from 0-2 feet. No PID readings observed and No odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(710) 621-1050
Project: 68	Tonav	vanda	Street	Sheet: 1 of 1
Client: Way	ne Ba	con &	Ed Hogel	Location: See Associated Figure
Contractor:	Natur	es Wa	ay	Ground Elevation:
Date Starte	d: 3-5-	-14		Operator:
Date Comp	leted:	3-5-14	4	Geologist/Technician: Pete Gorton
Bore Hole N	Numbe	er: <b>BH</b> -	-4	Ground Water:
		nple		Description
Depth (FT)	NO 1	TYPE		Description
0			0-1 - fill - dark	brown sandy silt
			o i illi dark	Slowin danay diik
2			1-2 - Fill - brov	wn silty sand with gravel
3			2-3 - Fill - blac	ck cherty
4			3-3.5 - brick 3.5-4 - clayey	eilt
			J.J-4 - Clayey	Siit
5			4-6 - silty clay	- petroleum odor - PID 14-15 ppm
6				
7			6.8 black sa	nd - petroleum odor - PID 28-30 ppm
1			0-0 - black sal	nu - petroleum odor - P ID 20-30 ppm
8				
9	8-11 - black s		8-11 - black s	ilty sand
10				
10				
11				
			11-12 - red cla	ay
12	12 boring end			

Comments: Collected sample from 5-7 feet. PID 14-30 ppm and petroleum odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

			(716) 821-1650
Tonav	wanda	Street	Sheet: 1 of 1
ne Ba	con &	Ed Hogel	Location: See Associated Figure
Natur	es Wa	ay	Ground Elevation:
d: 3-5	-14		Operator:
leted:	3-5-14	1	Geologist/Technician: Pete Gorton
Numbe	er: <b>BH</b>	-5	Ground Water:
			Description
NO	ITPE		Becomparen
		0-1 - fill - silty	gravel
		1-3 - red-black	k sandy-ash fill
		3-3 5 - cemen	t t
		5-5.5 - Cerrieri	
		2 5 7 rod olo	
		3.5-7 - Ted Cla	y
		Boreing end	
	ne Ba Natur d: 3-5 eted: lumbo Sar	ne Bacon & Natures Wa d: 3-5-14 eted: 3-5-14 lumber: <b>BH</b> Sample	eted: 3-5-14 lumber: <b>BH-5</b> Sample NO TYPE  0-1 - fill - silty  1-3 - red-black  3-3.5 - cemen

Comments: No sample collected. No PID readings observed and No odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(716) 821-1650
Project: 68	Tonav	vanda	Street	Sheet: 1 of 1
Client: Way	ne Ba	con &	Ed Hogel	Location: See Associated Figure
Contractor:	Natur	es Wa	ıy	Ground Elevation:
Date Starte	d: 3-5-	-14		Operator:
Date Compl	leted:	3-5-14	1	Geologist/Technician: Pete Gorton
Bore Hole N	Numbe	er: BH	-9	Ground Water:
Depth (FT)		nple TYPE		Description
0			0-0.5 - stone	·
1			0-1 - fill - silty	gravel
2			1-3 - red-black	k sandy-ash fill
3			0.5-3 - silty fill	with gravel
			O.O O Only IIII	with graver
4			3-4 - black gra	avel sandy fill with chert
			Boring end at	4 feet
5				
6				
7				
1				
8				
9				
40				
10				
11				
12	0		I 1 - 1 - 1 O A S	

Comments: Sample collected at 3-4 feet. PID 16 ppm odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(* 10) 5=1 1000
Project: 68 Tonawanda Street			Street	Sheet: 1 of 1
Client: Way	ne Ba	acon &	Ed Hogel	Location: See Associated Figure
Contractor:	Natu	res Wa	ıy	Ground Elevation:
Date Starte	d: 3-5	5-14		Operator:
Date Comp	leted:	: 3-5-14	1	Geologist/Technician: Pete Gorton
Bore Hole N	Numb	er: <b>BH</b> -	-10	Ground Water:
		mple		Description
Depth (FT)	NO			•
0			0-0.5 - gravely	y silty fill
1				
2				
			0.5.4	al- aut. Ell
3			0.5-4 - gravel-	cherty fill
4				
<del>_</del>				
5				
6			4-8 - clay	
7				
8				
9				
9				
10				
11				
12				

Comments: No sample collected. No PID readings observed and No odor

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(* 10) 5=1 1000
Project: 68	Project: 68 Tonawanda Street			Sheet: 1 of 1
Client: Wayne Bacon & Ed Hogel				Location: See Associated Figure
Contractor:	Natu	res Wa	ıy	Ground Elevation:
Date Starte	d: 3-5	5-14		Operator:
Date Comp	leted	: 3-5-14	1	Geologist/Technician: Pete Gorton
Bore Hole N	Numb	er: <b>BH</b> -	-11	Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0				
1				
			0-2 feet - blac	k sandy gravely fill
2				
			2-3 - cement	
3				
4			2 E blook oo	ndy gravely fill with wood
4			5-5 - DIACK Sai	ndy gravely fill with wood
5				
6			5-8 - red clay	
7				
			_	
8				
9				
10				
11				
12				

Comments: No sample collected. No PID readings observed and No odor

# 2017 PANAMERICAN ENVIRONMENTAL/BE3 PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 68	: 68 Tonawanda Street			Sheet: 1 of 1
Client: Yots	& Fri	zlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.933026 W78.897231
Date Starte	ed: 1-2	6-17		Operator:
Date Comp	leted:	1-26-1	17	Geologist/Technician: Pete Gorton
Bore Hole N				Ground Water:
	Sar	mple		Description
Depth (FT)	NO	TYPE		Description
0				
1				
2				
			0-4 - Fill consi	isting of black sandy with some gravel and ash - possible foundry sand
3				
4				
5				
6			4-8 - Reddish	brown clay; stiff
7				
8				
9				
			8-12 - Reddisl	h brown clay; stiff wet
10				
11				
12			End of Boring	

Comments: Collected sample at 1-4 feet. Hole filled with water

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(1.10) 0=1.1000
Project: 68	8 Tonawanda Street		Street	Sheet: 1 of 1
Client: Yots	& Fr	izlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.932889 W78.897244
Date Starte	d: 1-2	26-17		Operator:
Date Comp	leted	: 1-26-1	17	Geologist/Technician: Pete Gorton
Bore Hole N	Numb	er: <b>BH</b> -	-2A	Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0				
1				
2				
				nsisting of black chert with light gray and black sand
3			with piecs of b	prick and wood
4				
5				
6				
7				
7				
8				
9				
			3.5-12 - Redd	ish brown clay; stiff
10				
11				
12			End of Boring	

Comments: Collected sample at 1-3 feet.

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(710) 621-1050
Project: 68	Tonav	wanda	Street	Sheet: 1 of 1
Client: Yots	& Friz	zlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.932785 W78.897391
Date Starte	d: 1-2	6-17		Operator:
Date Comp	leted:	1-26-	17	Geologist/Technician: Pete Gorton
Bore Hole N	Numbe	er: <b>BH</b>	-3A	Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0				
I				
2				
			0-4 - Fill cons	isting of brown-grey silty sand
3			with piecs of I	brick, gravel and black chert
4				
5			4-6 - fill with h	prick, gravel, black sandy chert - wet
			+ O IIII WICH E	mor, graver, black carray chere wet
6				
			6-7 - reddish	brown clay
7				
0				
8				
9				
			7-12 - Reddis	h brown clay; very wet
10				
11				
12			End of Boring	
			a or borning	

Comments: No sample collected

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 68	3 Tonawanda Street			Sheet: 1 of 1	
Client: Yots	& Fri	zlen		Location: See Associated Figure	
Contractor:	SJB			Ground Elevation: N42.932727 W78.897440	
Date Starte	d: 1-2	:6-17		Operator:	
Date Comp	leted:	1-26-1	17	Geologist/Technician: Pete Gorton	
Bore Hole N				Ground Water:	
D 41 (ET)		mple		Description	
	NO	TYPE		Description	
0 1					
•					
2					
			0-4 - Fill - oily	at surface - consisting of brown-grey-black silty sand and gravel	
3					
4					
5					
6			4-9 - wet black	k, gravely, sandy silt - very wet	
			4-9 - Wet black	k, gravery, sarrdy sitt - very wet	
7					
8					
9					
			9-12 - Reddisl	h brown clay; very wet	
10					
11					
11					
12			End of Boring		

Comments: Sample collected from 0-6 feet

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(710) 821-1050
Project: 68	Tona	wanda	Street	Sheet: 1 of 1
Client: Yots	& Fri	zlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.932511 W78.897565
Date Starte	ed: 1-2	26-17		Operator:
Date Comp	oleted:	1-26-	17	Geologist/Technician: Pete Gorton
Bore Hole I	Numb	er: <b>BH</b>	-5A	Ground Water:
D (1 (ET)		mple		Description
Depth (FT)	NO	TYPE		Description
1				
2				
			0-4 - Fill - Silty	y, clayey sand with brick, stone and cement
3				
4				
5				
6			4-6- brown-bla	ack, gravely, sandy silt
7				
,				
8				
9			0.40 5	
10			6-12 - Reddis	h brown clay; very wet
10				
11				
12			End of Boring	

Comments: Sample collected from 1-6 feet

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 68 Tonawanda Street				Sheet: 1 of 1
Client: Yots	& Fri	izlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.932134 W78.897330
Date Starte	d: 1-2	26-17		Operator:
Date Comp	leted:	: 1-26-1	17	Geologist/Technician: Pete Gorton
Bore Hole N				Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0				
1				
2				
			0-4 - Fill - san	d with ash, brick, stone and cement
3				
4				
5				
6			1-8- brown-bla	ack, gravely, sandy silt - wet
			4-0- BIOWII-BIE	dok, gravery, sarray siit - wet
7				
·				
8			Borehole ende	ed at 8 feet refusal
9				
10				
11				
12				

Comments: Sample collected from 0-3 feet

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 68 Tonawanda Street				Sheet: 1 of 1
Client: Yots	& Fri	izlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.931753 W78.897628
Date Starte	d: 1-2	26-17		Operator:
Date Comp	leted:	: 1-26-1	17	Geologist/Technician: Pete Gorton
Bore Hole N				Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0				
1				
2				
			0-4 - Fill - san	d with ash, brick, stone and cement
3			O T I III SUIT	a with don, briok, stone and sement
4				
5				
6			4-8- reddish-b	rown clay
7				
8			Borehole ende	ad at 8 feet
			Boreriole end	su at o leet
9				
10				
11				
12				

Comments: No sample collected

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

			(* 10) 5=1 1000	
Project: 68 Tonawanda Street			Street	Sheet: 1 of 1
Client: Yots	& Fr	izlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.931228 W78.897542
Date Starte	d: 1-2	26-17		Operator:
Date Comp	leted	: 1-26-1	17	Geologist/Technician: Pete Gorton
Bore Hole N	Numb	er: <b>BH</b> -	-8A	Ground Water:
		mple		Description
Depth (FT)	NO	TYPE		Description
0 1				
2				
			0-4 - Fill - pink	and brown sand
3				
4				
5				
6			4-8- reddish-b	rown clay
7				
			<b>.</b>	
8			Borehole ende	ed at 8 feet
9				
10				
11				
40				
12				

Comments: Sample collected from 0-4 feet

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

				(716) 821-1650
Project: 68	Tonav	wanda	Street	Sheet: 1 of 1
Client: Yots	& Friz	zlen		Location: See Associated Figure
Contractor:	SJB			Ground Elevation: N42.930781 W78.897763
Date Starte	d: 1-2	6-17		Operator:
Date Comp	leted:	1-26-	17	Geologist/Technician: Pete Gorton
Bore Hole N			-9A	Ground Water:
Depth (FT)	San	nple		Description
0	NO	ITPE		200011711011
1				
2				
3			0-3.5 - Fill - s	tone, brick, silty clay
3			3.5 - dark silts	y clay with petroleum odor
4			o.o dancone	y day war poadloam oud.
			4-6 - silty clay	1
5				
6				
7			6-8 - Black sa	and with strong petroleum odor
				o.
8			Borehole end	led at 8 feet
9				
10				
11				
10				
12				

Comments: SVOC Sample collected from 2-6 feet and VOC sample collected from 6-8 feet. PID not functioning due to rain

## 2018 BE3 REMEDIAL INVESTIGATION REPORT



1270 Niagara Street Buffalo, NY 14213 716.249.6880 Ø be3corp.com

Project: 68 Tonawanada Street			a Street	Sheet: 1 of 1
Client:Buffalo Freight House, LLC				Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natu	res Wa	ny	Ground Elevation: Lat 42.93080622 Long -78.89747178
Date Starte	d: Fe	bruary	7, 2018	Operator:
Date Compl	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N	lumb	er: RI-1	1	Ground Water:
D II. (ET)		mple		Description
Depth (FT) 0	NO	TYPE		Becomption
1				
2				
3				
4				
5				
5				
6			0-6 feet - fill w	rith cinder, ash, gravel, wood
			wood at 6 feet	
7				
8				
9				
40	_			
10				
11				
- 11				
12			7-12 - silty cla	y; red-brown
			slight odor of	naphalene-weathered petroelum
13			Silty clay -red-	-brown is likely native material
14				
17				
15				
40				
16	DID	0 000	a above books	round elight oder of nonthalana/waatharad natralaum Callagt fill gample:

Comments: PID - 0 ppm above background - slight odor of napthalene/weathered petroleum. Collect fill sample; Collected clay sample. Note, borehole was inside south end of building through a dirt floor



			7 – 9	
Project: 68	Tona	wanada	a Street	Sheet: 1 of 1
Client:Buffa	lo Fr	eight H	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natu	ıres Wa	ıy	Ground Elevation: Lat 42.93094231 Long -78.89757917
Date Starte	d: Fe	bruary	7, 2018	Operator:
Date Compl	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			2	Ground Water:
Depth (FT)		mple		Description
0				-
1				
2				
3				
4			0-4 feet - fill w	vith silty cinder soil and brick
5				
6				
7				
,				
8				
9				
9				
10				
44				
11				
12			4-12 - silty cla	
13			Silty red-brow	n clay is likely native material
13				
14				
15				
16 Comments:	PID	- 0 ppn	n above backg	round - Collect fill sample at 1-4 feet for metal analysis only
		-  -		



	<u> </u>	1010	Log	ENVIRONMENT • ENGINEERING • ENERGY
Project: 68	Tona	wanada	a Street	Sheet: 1 of 1
Client:Buffa	lo Fre	eight Ho	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natur	res Wa	У	Ground Elevation: Lat 42.93109858 Long -78.89761244
Date Starte	d: Fel	oruary	7, 2018	Operator:
Date Comp	leted:	Februa	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			3	Ground Water:
Depth (FT)	Sai NO	mple TYPE		Description
0				
'				
2				
3				
3				
4				
			0-4.5 Feet - fil	with cinder and sand. Sand at 4 feet - wet
5				
6				
7				
8				
-				
9				
10				
10				
11				
10			4 E 40	law rad brown
12			Silty red-brow	lay; red-brown n clay is likely native material
13				
14				
15				
16				
Comments:	PID -	- 0 ppm	n above backgr	round - Collect fill sample at 1-4 feet for metals only.



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Project: 68	Tona	wanada	a Street	Sheet: 1 of 1
Client:Buffa	lo Fr	eight H	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natu	ıres Wa	ıy	Ground Elevation: Lat 42.93141463 Long -78.89758093
Date Starte	d: Fe	bruary	7, 2018	Operator:
Date Comp				Geologist/Technician: Brennen/Gorton
Bore Hole N				Ground Water:
	Sa	ample		•
Depth (FT)	NO	TYPE		Description
0				
1				
2				
3				
4				
5			0-5 Feet - fill v	vith cinder, sand, gravel, cement, stone.
_				
6				
7				
/				
8				
9				
10				
11				
12			E 10 ciltu do	uy rod brown
12			5-12 - silty cla red-brown silty	y clay is likley native material
13				
14				
15				
16				
( ommente.	ווט	_ () nnn	n ahove hackai	round - Collect fill sample at 2-5 feet for metals and SVOcs only. Took

Comments: PID - 0 ppm above background - Collect fill sample at 2-5 feet for metals and SVOcs only. Took sample from 6-8 feet (native) for full analysis list



= 10.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.							
Project: 68	Tona	wanada	a Street	Sheet: 1 of 1			
Client:Buffa	lo Fr	eight H	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY			
Contractor:	Natu	res Wa	ıy	Ground Elevation: Lat 42.93176994 Long -78.89755499			
Date Starte	d: Fe	bruary	7, 2018	Operator:			
Date Comp	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton			
Bore Hole N			5	Ground Water:			
Depth (FT)		mple		Description			
0	INO	1111		2 3331. 2 3331			
1							
2							
3							
4			0-4 feet - fill				
5							
6							
7							
,							
8				clay; red-brown			
0			Red-brown sil	ty clay is likely native material			
9							
10							
11							
12							
40							
13							
14							
15							
16 Comments:	DID	- 0 nnn	n above backg	round - Collect fill sample at 1-4 feet for metals.			
Comments.	טו ו	- о ррп	Tabove backgi	ound - concet iiii sample at 1-4 teet for metals.			



			7 = 9	ENVIRONMENT - ENGINEERING - ENERGY
Project: 68	Tona	wanada	a Street	Sheet: 1 of 1
Client:Buffa	lo Fr	eight H	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natu	res Wa	ıy	Ground Elevation: Lat 42.93193806 Long -78.89751742
Date Starte	d: Fe	bruary	7, 2018	Operator:
Date Compl	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			3	Ground Water:
Depth (FT)		mple		Description
0	INO	1111		2 333.   333.
1				
0				
2				
3				
4				
5			0-5 feet - fill w	rith sand, cinder, gravel, cement
				, , ,
6				
7				
,				
8				
9				
10				
11				
12			5-12 silty clay	; red-brown very wet
			Red-brown Sil	Ity clay is likely native material
13				
14				
15				
15				
16				
Comments:	PID	- 0 ppn	າ above backgi	round - Collect fill sample at 1-5 feet for metals.



	ENVIRONMENT • ENGINEERING • ENERGY			
Project: 68	Tona	wanada	a Street	Sheet: 1 of 1
Client:Buffa	lo Fre	eight Ho	ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor:	Natu	res Wa	ıy	Ground Elevation: Lat 42.93239117 Long -78.89740486
Date Starte	d: Fe	bruary	7, 2018	Operator:
Date Comp	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			7	Ground Water:
Depth (FT)	Sa NO	mple TYPE		Description
0				
1				
2				
3				
4				
5				rith sand, cinder, gravel
0			wood at 5-6 fe	et
6				
7				
8				
9				
<u> </u>				
10				
4.4				
11				
12			6-12 silty clay:	; red-brown
40			Red-brown Sil	lty clay is likely native material
13				
14				
15				
16	DID	0.000	a above backer	round - Collect fill sample at 2-6 feet for metals.
Comments:	FID	- υ μριτ	i above backgi	ound - Conect in Sample at 2-0 feet for Metals.



		ic Log	ENVIRONMENT • ENGINEERING • ENERGY
Project: 68 Tonawanada Street			Sheet: 1 of 1
Client:Buffalo Freight House, LLC			Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way			Ground Elevation: Lat 42.93239117 Long -78.89740486
Date Started: February 7, 2018			Operator:
Date Comp	leted: Feb	oruary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			Ground Water:
Depth (FT)	Sample NO TYP		Description
0			
1			
2		+	
3			
4		0.4 foot gilty	y condu fill with sinder, stone, coment, rock gravel
4		0-4 leet - slity	sandy fill with cinder, stone, cement, rock-gravel
5			
6			
7			
·			
8			clay; red-brown
		Red-brown Si	ilty clay is likely native material
9		+	
10			
11			
12			
13			
14		+	
15		+	
16			
Comments:	: PID - 0 p	pm above backg	round - Collect fill sample at 2-4 feet for metals and SVOC analysis.
ĺ			



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Project: 68 Tonawanada Street			a Street	Sheet: 1 of 1
Client:Buffalo Freight House, LLC				Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way				Ground Elevation: Lat 42.93288538 Long -78.89722696
Date Started: February 7, 2018				Operator:
Date Comp	leted:	Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N				Ground Water:
	Sa	mple		Description
Depth (FT) 0	NO	ITPE		<u> </u>
1			0-1 feet - cem	ent floor (6-7 inches), black cinder fill
2			1-2 feet - silty	clay
3	$\vdash$			
4			2-4 feet - blac	k cindery fill
			2 1 1000 5100	Normally III
5				
6				
7				
8				
U				
9				
10				
	$\square$			
11				
12			4-12 feet - cilt	y clay; red brown
12				ty clay is likely native material
13				, ,
1.4				
14				
15				
16			L	

Comments: PID - 0 ppm above background - Collect fill sample at 2-4 feet for metals analysis. Note this boring was completed inside the north end of building



			7 – 9	ENVIRONMENT - ENGINEERING - ENERGY
Project: 68 Tonawanada Street			a Street	Sheet: 1 of 1
Client:Buffalo Freight House, LLC				Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way				Ground Elevation: Lat 42.93311572 Long -78.89720037
Date Started: February 7, 2018				Operator:
Date Compl	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			10	Ground Water:
Depth (FT)		mple TYPE		Description
0				
1				
2				
3				
4				
			0-4.5 feet - fill	incuding gravel, sandy silty soil with black cinders at 4 feet
5				
6				
0				
7				
0			4.5.0.51	Control of the contro
8				ty sandy clay; red-brown Ity clay is likely native material
9			red brown on	ny olay to likely flative flaterial
10				
11				
12			4-12 feet - silt	y clay; red brown
13				
14				
15				
16				
	PID	- 0 ppn	n above backg	round - Collect fill sample at 3-4 feet for metals analysis only



		1010	Log	ENVIRONMENT • ENGINEERING • ENERGY
Project: 68 Tonawanada Street				Sheet: 1 of 1
Client:Buffalo Freight House, LLC				Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way				Ground Elevation: Lat 42.93335586 Long -78.89712128
Date Started: February 7, 2018				Operator:
Date Comp	leted:	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			11	Ground Water:
Depth (FT)	Sa NO	mple TYPE		Description
0				
I				
2				
_				
3			0-3.5 feet - fill	with gravel, silt,brick and cinder
4			3.5-4 feet -sar	nd; wet
5				
6				
, and the second				
7				
8			4 5-8 feet - silt	ty sandy clay; red-brown
0				ty clay is likely native material
9				
40				
10				
11				
12			4-12 feet - silty	y clay; red brown
13				
14				
15				
16				
Comments:	PID	- 0 ppm	n above backgr	round - Collect fill sample at 2-4 feet for metals analysis only
i				



וטם		Log	ENVIRONMENT • ENGINEERING • ENERGY
Project: 68 Tonawanada Street			Sheet: 1 of 1
Client:Buffalo Freight House, LLC			Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way			Ground Elevation: Lat 42.93336566 Long -78.8973264
Date Started: February 7, 2018			Operator:
		uary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			Ground Water:
Depth (FT)	Sample		Description
0			
1			
2		+	
		+	
3			
-		1	
4		0-4.5 feet -fill	with gravel,silt, cinder, brick, cement
5		1	ood, slight odor
		refusal at 5 fe	<u>eet                                    </u>
6		<del> </del>	
7		_	
/		+	
8		+	
		+	
9		1	
10			
11		<u> </u>	
		<del> </del>	
12			
13		+	
14			
15			
10		+	
16		+	
	PID - 0 ppr	n above backg	round - Collect fill sample at 1-3 feet. Collected sample at 4.5 feet for VOC
			·



Project: 68 Tonawanada Street			a Street	Sheet: 1 of 1
Client:Buffalo Freight House, LLC			ouse, LLC	Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way			ıy	Ground Elevation: Lat 42.93319923 Long -78.89731132
Date Started: February 7, 2018			7, 2018	Operator:
Date Comp	leted	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			13	Ground Water:
Depth (FT)	Sa NO	Sample NO TYPE		Description
0				
2				
3				
3				
4			0-4.5 feet -fill	with silt, cinder, cement
5				
6				
7				
8			4.5-8 feet - sil	ty clay - red-brown
				Ity clay is likely native material
9				
10				
11				
12				
13				
14				
15				
16	DID	0 222	a abaya baaka	round - Collect fill sample at 3-4.5 feet for metals analysis.
Comments.	FID	- o ppn	i above backgi	ound - Collect IIII Sample at 3-4.5 leet for metals analysis.



	<u> </u>	1010	, 209	ENVIRONMENT • ENGINEERING • ENERGY
Project: 68 Tonawanada Street				Sheet: 1 of 1
Client:Buffalo Freight House, LLC				Location: 68 Tonawanda Street, Buffalo NY
Contractor: Natures Way				Ground Elevation: Lat 42.93302469 Long -78.89734779
Date Started: February 7, 2018				Operator:
Date Comp	leted:	: Febru	ary 7, 2018	Geologist/Technician: Brennen/Gorton
Bore Hole N			14	Ground Water:
Depth (FT)	Sa NO	mple TYPE		Description
0				
ı				
2				
3				
4			0-4 feet -fill wi	th silt, cinder, cement
			refusal at 4 fe	et (concrete) 3 attempts to move
5				
6				
, and the second				
7				
8				
0				
9				
40				
10				
11				
12				
13				
14				
15				
16				
	PID	- 0 ppn	above backgr	round - Collect fill sample at 2-4 feet for metals analysis.



Project: 68	Project: 68 Tonawanda Street Sheet: 1 of 1					
Client: Buff				Job Number: BCP #C015316		
Contractor:				Location: 68 Tonawanda Street, Buffalo, New York		
Date Starte	d: Feb	ruary '	13, 20018	Ground Elevation: Lat. 42.93337735 Long -78.89722714		
Date Comp	leted:	Februa	ary 13, 2018	Operator:		
Pit Number				Geologist/Technician: Gorton		
				Ground Water: NA		
Danth (ft)	Sar	nple		Description		
Depth (ft)	#	Туре		Description		
1	#		0-1 feet - asphalt tailings			
6 — 7 — 8			1-7 feet - fill including stone-grav Hard concrete floor at 7 feet - ref	el, wood, concrete pieces usal Test Pit ends. Perched water fills bottom of pit		
9 — 10						
11						
12			stalt 4 fact wide by 40 fact laws by	. 7 foot door		
	Comments: Approximatelt 4 feet wide by 12 feet long by 7 feet deep Sample fill at 2-4 feet for metals analysis					
PID - no P	ID ab	ove ba	ackground			



Project: 68	Tonav	vanda	Street	Sheet: 1 of 1				
Client: Buff	alo Fre	eight H	ouse, LLC	Job Number: BCP #C015316				
Contractor:				Location: 68 Tonawanda Street, Buffalo, New York				
Date Starte				Ground Elevation: Lat. 42.93324833 Long -78.89724759				
			ary 13, 2018	Operator:				
Pit Number	: Test	Pit - T	P-2	Geologist/Technician: Gorton				
				Ground Water: NA				
Depth (ft)		nple		Description				
-1 (-7	#	Type						
1								
_								
2								
_								
3								
4			0-4.7 feet - fill including brick,stor	ne-gravel, cement pieces				
_								
5								
6			4.7 - 6 feet - sand					
_								
7			6-7 feet - clay Test pit ends					
_			Red-brown Silty clay is likely nativ	ve material				
			Trea-brown only clay is likely flatis	ve material				
8								
_								
9								
_								
10								
_								
11								
_								
12								
	Comments: Approximatelt 4 feet wide by 10 feet long by 7 feet deep							
Sample fill at 2-4 feet for full analysis								
Sample clay (native) at 6 feet for full analysis								
no P - טוץן	ID ab	ove ba	PID - no PID above background					



Project: 68 Tonawanda Street Sheet: 1 of 1					
Client: Buffalo Freight Ho		Job Number: BCP #C015316			
Contractor: Pinto		Location: 68 Tonawanda Street, Buffalo, New York			
Date Started: February 1	13, 20018	Ground Elevation: Lat. 42.93263784 Long -78.89740701			
Date Completed: Februa		Operator:			
Pit Number: Test Pit - TF	D-3	Geologist/Technician: Gorton			
		Ground Water: NA			
Sample					
		Description			
1	perced water enter pit at 3 feet po end pit at 5 feet due to water atelt 4 feet wide by 9 feet long by 8 for full analysis e).				



Project: 68 Tonawanda Street Sheet: 1 of 1							
Client: Buff				Job Number: BCP #C015316			
Contractor				Location: 68 Tonawanda Street, Buffalo, New York			
Date Starte			13, 20018	Ground Elevation: Lat. 42.93087375 Long -78.8976017			
			ary 13, 2018	Operator:			
Pit Number	: Test	Pit - T	P-4	Geologist/Technician: Gorton			
				Ground Water: NA			
	Sar	nple					
Depth (ft)	#	Туре	1	Description			
		. )   0					
1							
_							
2							
_							
3							
Ŭ							
_							
4							
_							
5			0-5 feet - fill with brick, cement pi	eces			
6							
_							
7							
_							
8			5-8 feet - silty clay; red-brown				
O							
_			Test pit end - Red-brown Silty cla	ly is likely native material			
9							
_							
10							
_							
11							
''							
_							
12							
Comment	s: Anr	roxim	atelt 4 feet wide by 17 feet long by	/ 8 feet deep			
			above clay native layer; full analys				
		Jaor	and the state of t				
No PID or	nanic	vanor	readings above background				
1.40 1 10 01	garno	vapoi	readings above background				



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Client: Buffalo Freight Ho Contractor: Pinto Date Started: February 1 Date Completed: February 1 Pit Number: Test Pit - Th	13, 20018 ary 13, 2018	Job Number: BCP #C0153 Location: 68 Tonawanda S Ground Elevation: Lat. 42	Street, Buffalo, New York
Contractor: Pinto Date Started: February Date Completed: Februa Pit Number: Test Pit - Ti	13, 20018 ary 13, 2018		
Date Completed: Februa Pit Number: Test Pit - Ti	ary 13, 2018	Ground Elevation: Lat. 42.	000057001 70 00750500
Pit Number: Test Pit - Ti			.93085768 Long -78.89759593
	P-5	Operator:	
- Commite	1 -0	Geologist/Technician: Gor	rton
0 1 -		Ground Water: NA	
Depth (ft) Sample # Type		Description	
1			
2			
3			
4 _			
			en blocks (possible old wodden floor)
	5-6 feet - stone-gravel; perched 6 feet - silty clay (native)	water enters pit from this	ıayer
7	6-7 feet - silty clay; red-brown		
-	Test Pit ends at 7 feet - Red-bro	wn Silty clay is likely nativ	ve material
8 —			
9			
10			
11			
12			
Comments: Approxima	atelt 4 feet wide by 15 feet long b	v 7 feet deep	

Sample fill at 4-5 feet for VOC analysis

Sample Fill from 1-4 feet for metal analysis

PID organic vapor readings of 1-3 ppm at 5.5-6 feet.



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Project: 68	Tona	wanda	Street		Sheet: 1 of 1	
Client: Buff	alo Fr	eight H	louse, LLC	Job Number: BCP #C0153	16	
Contractor:	Pinto			Location: 68 Tonawanda Street, Buffalo, New York		
Date Starte	d: Fel	oruary	13, 20018	Ground Elevation: Lat. 42.9	93093964 Long -78.89759045	
			ary 13, 2018	Operator:		
Pit Number	: Test	Pit - T	P-6	Geologist/Technician: Gort	on	
				Ground Water: NA		
Depth (ft)		mple		Description		
Doptii (it)	#	Type		Description		
_						
1						
2						
_						
3						
Ü						
_						
4						
_						
5			0-5.5 feet - fill with brick, cement	pieces and gravel		
_			perched water in pit			
6			5.5 - 6.5 feet - silty clay (native)			
_			Test pit end at 6.5 feet - Red-brov	vn Siltv clav is likelv nativ	e material	
7			,	, , ,		
,						
_						
8						
_						
•						
9						
_						
10						
_						
11						
_						
12						
	o. Ann	rovim	atelt 4 feet wide by 16 feet long by	6 5 foot doop		
			for VOC and SVOC analysis	0.0 IEEL UEEP		
			eet for metal analysis			

Sample Fill from 1-4 feet for metal analysis

PID organic vapor readings of 3-10 ppm at 4-5.5 feet. Strong petroleum odor

## 150 TONAWANDA STREET SITE NO. C915299

# 2016 PANAMERICAN ENVIRONMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: C:	SX Proper	ty	Sheet: 1 of 1		
Client:			Location: Tongwanda ST Buffalo, NY		
Contractor:			Ground Elevation:		
Date Starte	ed: JAN. 4	,2016	Operator:		
Date Comp	oleted: JAN	4.2016	Geologist:		
Test Pit Nu		3,37	Ground Water: 6++		
Depth (FT)	Sample Depth (FT) NO TYPE		Description		
1	1 Concre		ete, Brick, Debris		
2		SIAIN	28 20()		
3	O'I	Black	Soil Ample		
4					
	1				
5		CLAN	- Reasy/Tan		
6		CITY	- Brown/Tan		
7					
8					
-					
9					
10					
11					
12					

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			(110) 021 1000		
Project: C	SX Prope	rty	Sheet: 1 of 1		
Client:			Location:		
Contractor:			Ground Elevation:		
Date Starte	d: 1141	6	Operator:		
Date Comp	leted:	1/16	Geologist:		
Test Pit Nu	Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Contro		Ground Water: 5 ft -6 ft		
Depth (FT)	Sample Depth (FT) NO TYPE		Description		
1		Conere	te, Brick, Debris N/TAN Soil		
2	02	SAMPLE	STIAN OOT		
3		Black	Sandy Material		
4		4			
5		Dark Water			
		CATOR			
6					
7					
- 1					
8					
9					
10					
10					
11					
12					

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 0	sx			Sheet: 1 of 1		
Client:				Location: Tonawanda ST Buffalo, NY		
Contractor:				Ground Elevation:		
Date Starte	ed: 1	-4-	16	Operator:		
Date Comp	oleted:	1-4	1-16	Geologist:		
Test Pit Nu	mber:	3		Ground Water: 5.5 ft.		
Depth (FT)	Sample Depth (FT) NO TYPE			Description		
1				ite, Brick, Debais		
2			BROW	*NO Sample Taken		
3						
4			DARK	Clay		
5						
6			W	ater L		
7						
8						
9						
40						
10						
11						
12						

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: &SX	Sheet: 1 of 1			
Client:	Location: Towarda ST Boffalo, N.Y.			
Contractor:	Ground Elevation:			
Date Started: 1/4/16				
Date Completed: 1/4/				
Test Pit Number: 4	Ground Water: 6 Ft.			
Depth (FT) NO TYPE	Description			
1	Concrete, Brick, Debris			
2	DROWN / TAN Soil URBAN Fill MIX			
3				
4	Black Soil			
5 03	SAMPLE TAKEN			
6	Clay (Water)			
7				
8				
9				
10				
11				
12				

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(710) 021-1000		
Sheet: 1 of 1		
Location: Towarda ST Buffalo, NY		
Ground Elevation:		
Operator:		
Geologist:		
Ground Water: 6 ft		
Description		
URBAN Fill: concrete, Brick, Debris		
BROWN /TAN Soil		
Consistent Debais Ymix of Brown/TAN Soil		
WATER		

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: C	SX		Sheet: 1 of 1		
Client:			Location: Tonawanda ST Buffalo, NY.		
Contractor:			Ground Elevation:		
Date Starte	ed: 1/4/16		Operator:		
	oleted: 1/4/		Geologist:		
Test Pit Nu	ımber: 6		Ground Water: 5-6 Ft.		
Depth (FT)	Sample Depth (FT) NO TYPE		Description		
1		URBAN	fill: Conserte, Brick, Debnis		
2		Mixture	of Brown TAN Soil		
3		* NO Sample Taken			
4		1			
5 Llay			(Brown / Black STAIN)  LR Seepage		
6		WAT	er Seepage		
7					
8					
9					
10					
11					
12					

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Project: C	SX		Sheet: 1 of 1				
Client:			Location: Towarda ST Buffalo, NY.				
Contractor			Ground Elevation:				
Date Starte	ed: 1/4/16		Operator:				
	oleted: ( u(	16	Geologist:				
Test Pit Nu		7	Ground Water: 5.5 — 6.0 Ft.				
Depth (FT)	Sample NO TYPE		Description				
1		URban Fi	11: Concrete, Bruck, Debris				
2	05	GRANSC	Concrete, Bizick, Debris  / Black / Dark Soil				
3			1.				
4		Soil /	Clay Mix Soil (Dark STAIN)				
	1	Black	Soil (DARK STAIM)				
5	06		1				
6		Water	CIAY				
7							
8							
9			· · · · · · · · · · · · · · · · · · ·				
10							
11							
12							

Panamerican Environmental, Inc 2391 Clinton Street Buffalo, NY 14227 (716) 821-1650

Project: 0	SX	Sheet: 1 of 1						
Client:		Location: Tonawards ST Buffalo, Ny.						
Contractor:		Ground Elevation:						
Date Starte	d: 1/4/16	Operator:						
Date Comp	leted: 1/4	Geologist:						
Test Pit Nu		Ground Water: 4 FT.						
Depth (FT)	Sample NO TYPE	Description						
1		DARK Rich Soil						
2		* NO Sample Taken						
3								
4		Tight Brown Clay WATER						
5								
6		* Pit location: BERM AREA, EAST side TODAWARDA ST.						
7								
8								
9								
10								
11								
12								

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			(1.10) 021 1000
Project: 6	SX		Sheet: 1 of 1
Client:			Location: Tongwanda ST Buffalo, NY.
Contractor			Ground Elevation:
Date Starte	ed: 1/4/16		Operator:
Date Comp			Geologist:
Test Pit Nu		9	Ground Water: 4.5 - 5.0 Pt.
Depth (FT)	Sample NO TYPE	<b>E</b> /	Description
			GRASS
1		DARK	Rich Soil
2			* NO Sample Taken
3			
4		Tight B	ROWN Clay
5		WATER	
6		Pit Location	on: N. edge of property - Berm
0			
7			
8			
9			
10			
11			
12			

### 2019 BE3 REMEDIAL INVESTIGATION REPORT



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				<u> </u>	Production and the second of t				
Project: 31	& 15	0 Tona	wanda	St	Sheet: 1 of 12				
Client: 31 T	onav	vanda S	St LLC		Location: 150 Tonawanda St, Buffalo NY				
Contractor:	Natı	ıre's W	ay		Ground Elevation: N/A Lat: 42.933921 Long: -78.897152				
Date Starte	:d: 8/	15/2018	8		Operator: Nate Gingrich				
Date Comp	letec	l: 8/15/2	2018		Geologist/Technician: Alex Brennen				
Bore Hole I	Numl	per: 150	D: BH-1		Ground Water: N/A				
/		mple	PID		Description				
Depth (FT) 0	NO	TYPE	(ppm)		0 to 2 feet: Dark sands, fine to coarse gravel				
1					0 to 2 feet. Dark saires, file to coarse graver				
-									
2				2 to 6 fe	et: Concrete at 2 fbgs, grey sands, trace brick, fine to coarse gravel				
_									
3									
4									
5									
					Blue colored slag resembling material at 5.5 fbgs				
6	1			6 to 7	feet: Moist, dark silt/clay, fine to coarse gravel, dark stain, no odor				
7					7 to 10.5 feet: brown clay, dense, moist				
,									
8									
9									
10									
10					Refusal at 10.5 fbgs				
11									
12									
13									
_									
14									
15									
16	NI-		fl N	- DID ''	s datected. Sample take at 6 to 7 fbgs - fill material. Boring done in large				
. Ommonic	ハロフモ	V OT /			s delected. Samble lake allo to / Inds - Illi Material, Roring gone in large i				

Comments: Native at 7 fbgs. No PID readings detected. Sample take at 6 to 7 fbgs - fill material. Boring done in large mounding area running north-south along railroad tracks.



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			- 3	NOTE OF THE PARTY			
Project: 31 8	<u>ፄ 150 ገ</u>	Γonawanda	St	Sheet: 2 of 12			
Client: 31 To	onawar	nda St LLC		Location: 150 Tonawanda St, Buffalo NY			
Contractor:	Nature	's Way		Ground Elevation: N/A Lat: 42.934071 Long: -78.897179			
Date Started	d: 8/15/	/2018		Operator: Nate Gingrich			
Date Compl	eted: 8	3/15/2018		Geologist/Technician: Alex Brennen			
Bore Hole N				Ground Water: N/A			
Depth (FT)	Sam			Description			
0	INO I	тт с (ррпп)	0 to 4	feet: Light brown sands, trace concrete and asphalt, fine to coarse			
1				gravel, fill			
			0 / 0 /				
2			2 to 6 fe	eet: Concrete at 2 fbgs, grey sands, trace brick, fine to coarse gravel			
3	-+						
4				4 to 7 feet: Dark sands, black gravel, fill, wet			
-							
5							
6							
7				7 to 11 feet: Moist, brown clay, fine gravel, dense			
8							
9							
40							
10	-+						
11	-			Refusal at 11 fbgs			
				<u>-</u>			
12							
13	-						
14	_						
15							
16 Comments:	Native	at 7 fbgs	No PID reading	gs detected. Sample take at 8 to 10 fbgs - native material. Surface			
Louinnenis.	malive	aι i ibys. l	NO FID I BAUIII	yo ucteoteu. Gampie take at o to 10 10195 - Hative Material, Gullace			

Comments: Native at 7 fbgs. No PID readings detected. Sample take at 8 to 10 fbgs - native material. Surface sample taken at 0 to 1 fbgs. Boring done in large mounding area running north-south along railroad tracks



Dole 110	ie Log	ENVIRONMENT - ENGINEERING - ENERGY / 16.249.0880 P De3COPp.COM
Project: 31 & 150 Tonav	/anda St	Sheet: 3 of 12
Client: 31 Tonawanda S	t LLC	Location: 150 Tonawanda St, Buffalo NY
Contractor: Nature's Wa	у	Ground Elevation: N/A Lat: 42.934444 Long: -78.897249
Date Started: 8/15/2018		Operator: Nate Gingrich
Date Completed: 8/15/20	018	Geologist/Technician: Alex Brennen
Bore Hole Number: 150:		Ground Water: N/A
Sample	PID	Description
Depth (FT) NO TYPE (	ppm)	0 to 2 feet: Brown sands, loose brick, coarse gravel
1		0 to 2 100th 210th contact, 10000 bits, 000100 grand.
2		2 to 2.75 feet: Concrete and possible slag material, urban fill
3		2.75 to 6 feet: Brown/black silty sand, fine gravel
3		
4 1		
5		
6		6 to 6.3 feet: Grey sand, coarse gravel, dry
<u> </u>	6.3 to 8	B feet: Black coarse sand, fine to coarse sand, fine to coarse gravel, wet
7		
		0.1.40.7.5.4.B
8		8 to 10.7 feet: Brown dense clay
9		
10		
11		Refusal at 10.7 fbgs
11		
12		
10		
13		
14		
15		
15		
16		
		lings detected. Sample take at 4 to 6 fbgs - fill material.



				- 3	POLICE TO THE CONTRACT OF THE
					Sheet: 4 of 12
Client: 31 Tonawanda St LLC					Location: 150 Tonawanda St, Buffalo NY
Contractor:	Natu	ıre's W	ay		Ground Elevation: N/A Lat: 42.934609 Long: -78.897098
Date Starte	d: 8/	15/2018	3		Operator: Nate Gingrich
Date Comp	leted	: 8/15/2	2018		Geologist/Technician: Alex Brennen
Bore Hole N	Numb	er: 150	): BH-4		Ground Water: N/A
Danth (CT)		mple	PID		Description
Depth (FT) 0	1	TTPE	(ррпі)		0 to 2 feet: Black sands, some fine to coarse gravel
1	<u> </u>				g g
2					2 to 2.8 feet: Brown sand/silt, fine to coarse gravel
3	2				2.8 to 8 feet: Brown dense clay, some fine gravel
4					
5					
6					
7					
8					
9					
10					
11					
''					
12					
12					
13					
14					
15					
15					
16					
Commente	· Nat	tive at 2	Q fhac	No DID roadii	ngs detected. Surface sample taken at 0 to 1 feet. Sample taken at 2.8

Comments: Native at 2.8 fbgs. No PID readings detected. Surface sample taken at 0 to 1 feet. Sample taken at 2.8 to 4 fbgs - native material. Sample taken off of large mounding area near middle of parcel.



<u>_</u>	011	5 1 1010		ENVIRONMENT - ENGINEERING - ENERGY
Project: 31 & 150 Tonawanda St			a St	Sheet: 5 of 12
Client: 31 To	onaw	anda St LL		Location: 150 Tonawanda St, Buffalo NY
Contractor:	Natu	re's Way		Ground Elevation: N/A Lat: 42.934881 Long: -78.897130
Date Started	d: 8/1	15/2018		Operator: Nate Gingrich
Date Compl	eted	: 8/15/2018		Geologist/Technician: Alex Brennen
Bore Hole N			·5	Ground Water: N/A
Depth (FT)	Sa	mple PID	)	Description
0 Deptil (F1)	INO	TTPE (ppii	1)	0 to 1 feet: Black sand, fine to coarse gravel
1				1 to 2 feet: Brown/black silt, trace brick, fine gravel,
				2 to 2.3 feet: Concrete
2	1			2.3 to 4 feet: Moist black sand fine to coarse gravel
3				
4				4 to 8 feet: Brown dense clay, some fine gravel
5				
6				
7				
7				
8				Refusal at 8 fbs
0				reducti di C 180
9				
10				
11				
10				
12				
13				
14				
15				
16		. , ,	<u> </u>	
Comments:	Nati	ive at 4 fbgs	. No PID readin	gs detected. Sample taken at 2 to 4 fbgs - fill material.



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				-9
Project: 31	& 15	0 Tona	wanda	St Sheet: 6 of 12
Client: 31 T	onav	vanda S	St LLC	Location: 150 Tonawanda St, Buffalo NY
Contractor:	Natu	ıre's W	ay	Ground Elevation: N/A Lat: 42.934936 Long: -78.896852
Date Starte	d: 8/	15/2018	3	Operator: Nate Gingrich
Date Comp	leted	: 8/15/2	2018	Geologist/Technician: Alex Brennen
Bore Hole N	Numb	er: 150	): BH-6	Ground Water: N/A
Depth (FT)		mple	PID	Description
0 Depth (F1)	1 1	TTPE	(ррпі)	0 to 1 feet: Dark sands, coarse gravel, brick
1				1 to 2 feet: Concrete/rock, light grey sands
2				2 to 3 feet: Light brown sands, trace fine to coarse gravel
3				3 to 4 feet: Black sands, fine to coarse gravel
4				4 to 5.2 feet: Grey sand, blue colored rock, dry
5				
3	2			5.2 to 9 feet: Brown clay, dense, some fine gravel, moist
6				, , , , , , , , , , , , , , , , , , , ,
7				
8				
0				
9				Refusal at 9 fbgs
10				
10				
11				
12				
13				
_				
14				
15				
16				
	. Nat	tivo at F	2 fbac	No PID readings detected. Surface sample taken at 0 to 1 fbgs. Sample taken at 5.5

Comments: Native at 5.2 fbgs. No PID readings detected. Surface sample taken at 0 to 1 fbgs. Sample taken at 5.5 to 8 fbgs - native material. Sample taken in mounding adjacent to Tonawanda street.

## 1660 NIAGARA STREET SITE NO. C915311

### 2016 LABELLA ASSOCIATES PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

#### PROJECT BORING: #SB1 SHEET 1 OF Buffalo Niagara Riverkeeper JOB: 2151177 Associates, D.P.C. 1660 Niagara Street, Buffalo, New York CHKD BY: CK 300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANT: CONTRACTOR: BORING LOCATION: DRILLER: GROUND SURFACE ELEVATION TIME 8:45 Nature's Way Environmental LABELLA REPRESENTATIVE: Chris Kibler START DATE: 12/8/2015 TYPE OF DRILL RIG: DRIVE SAMPLER TYPE:

AUGER SIZE AND TYPE: INSIDE DIAMETR: OVERBURDEN SAMPING METHOD: OTHER:

								1
D E P		SAMPLE					PID FIELD SCREEN	
T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	(PPM)	REMARKS	
0		15"			0-4	": Concrete	0	No odors or staining.
					4"-2': Fill (a	asphalt, brick, slag)		
2		15"			Fill (asp	halt, brick, slag)	0	No odors or staining.
4		18"		4-5'		m plasticity, moderate stiff, dry)	0	No odors or staining.
					5-6': F	fill (brick, slag)		
6		18"			Fill	0	No odors or staining.	
8		18"		9	8-9': F I-10': Grey-black sar	0	No odors but heavy black staining observed within fill material.	
10		18"			Grey sandy sill	0	No odors or staining.	
12		15"			Grey sandy sill	0	No odors or staining.	
14		15"			Grey sandy sill	0	No odors or staining.	
				DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	Boring to 16'.		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			
			15.5'	16'	6.8'	TPMW #1 installed in this boring.		

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

BORING:

#SB2

OF

SHEET JOB: 2151177

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York

300 PEARL STREET, BUFFALO, NY

CONTRACTOR:

ENVIRONMENTAL ENGINEERING CONSULTANT

BORING LOCATION:

CHKD BY: CK

TIME

DRILLER: LABELLA REPRESENTATIVE:

Nature's Way Environmental Chris Kibler GROUND SURFACE ELEVATION START DATE:

9:20

TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPING METHOD: DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

D SAMPLE PID FIELD Ρ SCREEN SAMPLE SAMPLE NO. STRATA VISUAL CLASSIFICATION (PPM) REMARKS DEPTH AND RECOVERY CHANGE 0 0 0-6": Concrete No odors or staining throughout entire boring. 6"-2': Fill (brick, slag) 2 15" Fill (slag, brick) 0 4 18" Fill (slag, brick) 0 6 Fill (slag, brick) 0 18" 0 8 20" Brown-grey sandy silt (high plasticity, moist) 10 20" Brown-grey sandy silt (high plasticity, moist) 0 12 17" Grey silty sand (fine, medium dense, moist) 0 14 17" Grey silty clay (medium plasticity, moderate stiff, moist) 0 DEPTH (FT) NOTES: BOTTOM OF GROUNDWATER Boring to 16'. WATER LEVEL DATA BOTTOM OF **BORING** ENCOUNTERED DATE TIME ELASPED TIME CASING

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

BORING: SHEET

3

OF 2151177

JOB: CHKD BY: CK

300 PEARL STREET, BUFFALO, NY

ENVIRONMENTAL ENGINEERING CONSULTANT

LABELLA REPRESENTATIVE:

BORING LOCATION:

CONTRACTOR: DRILLER: Nature's Way Environmental GROUND SURFACE ELEVATION Chris Kibler

START DATE: 12/8/2015 TIME

10:15

TYPE OF DRILL RIG: AUGER SIZE AND TYPE:

OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

#3

D E P		SAMPLE				PID FIELD SCREEN		
T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	(PPM)	REMARKS	
0		18"			0-6	": Concrete	0	No odors or staining throughout entire boring.
					6"-2': Fill (a	asphalt, brick, slag)		throughout entire boning.
2		18"			Fill	(brick, slag)	0	
4		14"		Bro	own clay (medium p	plasticity, moderate stiff, moist)	0	
					,, ,			
6		14"		Bro	own clay (medium p	lasticity, moderate stiff, moist)	0	
8		14"		Gr	ov silty sand (modiu	m, fine, medium dense, moist)	0	
0		14		Git	ey siity sand (medid	m, line, medium dense, moist)		
10		14"		Gre	ey silty sand (mediu	m, fine, medium dense, moist)	0	
12		12"			Grey sandy silt (	medium plasticity, moist)	0	
14		12"			Grey sandy silt (	0		
				DEPTH (FT)		NOTES:		
	WATED	LEVEL DATA	BOTTOM OF		GROUNDWATER			
DATE	TIME	ELASPED TIME	CASING		ENCOUNTERED	Doning to 10.		
5,2			5,15,115	200				

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

BORING: SHEET

OF

JOB: 2151177 CK

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

CHKD BY:

300 PEARL STREET, BUFFALO, NY

CONTRACTOR:

ENVIRONMENTAL ENGINEERING CONSULTANT

BORING LOCATION:

TIME

10:45

DRILLER: Nature's Way Environmental LABELLA REPRESENTATIVE: Chris Kibler

GROUND SURFACE ELEVATION

START DATE: 12/8/2015

DRIVE SAMPLER TYPE:

INSIDE DIAMETR: OTHER:

TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPING METHOD:

D E		SAMPLE					PID FIELD	
P T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	SCREEN (PPM)	REMARKS	
0	DEI III	14"	OTHUGE		0-6	0	No odors or staining	
					6"-2': F	Fill (brick, slag)		throughout entire boring.
						, <b>0</b> ,		
2		14"		Brow	vn silty clay (medium	n plasticity, moderate stiff, moist)	0	
4		14"			Fill	(slag, brick)	0	
6		14"			Fill (slag	g, brick, asphalt)	0	
		4"			F:::	(alan haiala)	0	
8		4"			FIII	(slag, brick)	0	
10		4"			Fill	(slag, brick)	0	
						(4-1-5)	-	
12		21"		Black-g	rey sandy silt (medi	um plasticity, moderate stiff, moist)	0	
14		21"			Grey silty sand (m	nedium, fine, loose, moist)	0	
				DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	BOTTOM OF		GROUNDWATER			
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			
			15.3'	16'	7'	TPMW #2 installed in this boring.		

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

BORING: SHEET

5

OF

JOB: 2151177 CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANT

CONTRACTOR:

BORING LOCATION:

#5

TIME

11:20

DRILLER: LABELLA REPRESENTATIVE:

Nature's Way Environmental Chris Kibler GROUND SURFACE ELEVATION START DATE:

12/8/2015

TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR: OTHER:

D E P T H	SAMPLE DEPTH	SAMPLE SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	DEFIII	10"	CHANGE		0-1-	4": Concrete	0	No odors or staining.
								The edere of elaming.
					14"-2': Fill (	asphalt, brick, slag)		
2		10"			Fill (asp	phalt, brick, slag)	0	No odors or staining.
4		13"			Fill	(slag, brick)	0	No odors or staining.
6		13"			Fill	(slag, brick)	0	No odors or staining.
8		12"			Fill	(slag, brick)	725	Strong gasoline odors and black staining observed in fill material.
				DEPTH (FT)	1	NOTES:		
		LEVEL DATA	BOTTOM OF			Boring to 10' due to equipment refusal.		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED	1		
	l		<u> </u>	ļ	ļ			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

BORING: SHEET

#5SBA

6

6 OF

JOB: 2151177 CHKD BY: CK

300 PEARL STREET, BUFFALO, NY

ENVIRONMENTAL ENGINEERING CONSULTANT

CONTRACTOR:

BORING LOCATION:

#5A

.....

DRILLER: Nature's Way Environmental

LABELLA REPRESENTATIVE: Chris Kibler

GROUND SURFACE ELEVATION
START DATE: 12/8/2015

TIME

13:50

TYPE OF DRILL RIG: AUGER SIZE AND TYPE:

OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

D E P T	SAMPLE	SAMPLE NO.	STRATA		VISUAL	CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
H	DEPTH	AND RECOVERY	CHANGE		VIOONE	55 (COII 10/111011	(1.1.11)	TIEND WITO
0		10"			0-14	4": Concrete	0	No odors or staining.
					14"-2': Fill (	asphalt, brick, slag)		
2		10"			Fill (asp	halt, brick, slag)	0	No odors or staining.
4		13"			Fill	(slag, brick)	0	No odors or staining.
6		13"			Fill	(slag, brick)	0	No odors or staining.
8		12"			Fill	(slag, brick)	607	Strong gasoline odors and black staining observed in fill material.
				DEPTH (FT)	1	NOTES:		
	WATER	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	Boring to 10' due to equipment refusal.		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

BORING: #SB5A

LABELLA REPRESENTATIVE:

PROJECT

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

BORING: SHEET

7 OF

2151177

JOB: CHKD BY: CK

300 PEARL STREET, BUFFALO, NY

ENVIRONMENTAL ENGINEERING CONSULTANT

BORING LOCATION:

CONTRACTOR: DRILLER: Nature's Way Environmental

Chris Kibler

GROUND SURFACE ELEVATION START DATE: 12/8/2015 TIME

12:30

TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

D E	SAMPLE					PID FIELD SCREEN		
P T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE	VISUAL CLASSIFICATION				REMARKS
0		14"			0-6	": Concrete	0	No odors or staining.
				6"-2': Sand ba		erground storage tank area (medium, fine cose, dry)		
2		14"			Fill	(brick, slag)	0	No odors or staining.
4		18"			Grey-black silty clay	(high plasticity, soft, moist)	140	Strong gasoline odors and black staining.
6		18"		Grey-black silty clay (high plasticity, soft, moist)				Strong gasoline odors and black staining.
8		4"		Grey-black silty clay (high plasticity, soft, moist)				Strong gasoline odors and black staining.
10		4"		Grey-black silty clay (high plasticity, soft, moist)				Strong gasoline odors and black staining.
12		15"			Grey sandy silt	61	No staining but slight gasoline odors.	
14		15"		G	Grey clay (medium pl	3	No odors or staining.	
	•			DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	BOTTOM OF	воттом оғ	GROUNDWATER	Boring to 16'.		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

PROJECT

BORING: SHEET

8 OF

2151177

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANT

LABELLA REPRESENTATIVE:

DRILLER:

BORING LOCATION:

CHKD BY: CK

CONTRACTOR: Nature's Way Environmental Chris Kibler

GROUND SURFACE ELEVATION START DATE: 12/8/2015 TIME

JOB:

13:00

TYPE OF DRILL RIG: AUGER SIZE AND TYPE:

OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

#7

D E P		SAMPLE				PID FIELD SCREEN		
T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	(PPM)	REMARKS	
0		16"			0-8	": Concrete	0	No odors or staining throughout entire boring.
					8"-2': F	Fill (brick, slag)		throughout entire boning.
2		16"			Fill	(brick, slag)	0	
4		17"			Fill	(brick, slag)	0	
-		17			1	(blick, slag)	Ů	
6		17"		Br	own clay (medium p	plasticity, moderate stiff, moist)	0	
8		16"			Brown silty clay (I	high plasticity, soft, moist)	0	
10		16"		Brow	n silty clay (medium	n plasticity, moderate stiff, moist)	0	
				5.0	only oldy (module)	, placticity, moderate can, molecy		
12		18"			Grey silty sand (m	nedium, fine, loose, moist)	0	
						0		
14		18"		Grey silty clay (medium plasticity, moderate stiff, moist)				
				DEPTH (FT)		NOTES:		ı
	WATER	LEVEL DATA	BOTTOM OF	l	GROUNDWATER	Boring to 16'.		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

#### PROJECT

Buffalo Niagara Riverkeeper

1660 Niagara Street, Buffalo, New York

BORING: SHEET

#SB8

9 OF 9

JOB: 2151177 CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANT

BORING LOCATION:

CONTRACTOR: DRILLER: Nature's Way Environmental

LABELLA REPRESENTATIVE:

Chris Kibler

GROUND SURFACE ELEVATION START DATE: 12/8/2015 TIME

14:30

TYPE OF DRILL RIG: AUGER SIZE AND TYPE: OVERBURDEN SAMPING METHOD:

DRIVE SAMPLER TYPE: INSIDE DIAMETR:

OTHER:

D E P T H	SAMPLE DEPTH	SAMPLE NO. AND RECOVERY	STRATA CHANGE		VISUAL (	CLASSIFICATION	PID FIELD SCREEN (PPM)	REMARKS
0	<i>DE</i>	12"	0.0.000	0-3": Concrete				No odors or staining
2		12"				Fill (brick, slag) (brick, slag)	0	throughout entire boring.
4		20"			Fill	(brick, slag)	0	
6		20"			Brown clay (lo	w plasticity, stiff, moist)	0	
8		16"			Brown clay (lo	w plasticity, stiff, moist)	0	
10		16"			Grey silty sand (n	nedium, fine, loose, moist)	0	
12		10"			Grey silty sand (n	nedium, fine, loose, moist)	0	
14		10"			Grey silty sand (n	0		
16		13"		Gr	ey silty sand (mediu	0		
18		13"		Grey silty sand (medium, fine, medium dense, moist)				
20		22"		Brown silty sand (medium, fine, loose, wet)				
22		22"		Brown silty sand (medium, fine, loose, moist)			0	
				DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	1		
DATE	TIME	ELASPED TIME	CASING	BORING	ENCOUNTERED			
			22.1'	24'	8.1'	TPMW #3 installed in this boring.		

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER MAY OCCURE DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE

### LABELLA Associates, D.P.C.

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 1

SHEET 1 OF **JOB: 2151177** 

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: LaBella Env., LLC

LABELLA REPRESENTATIVE: Chris K.

TEST PIT LOCATION: 1

GROUND SURFACE ELEVATION NA

START DATE: 11/18/15

Time

9:33

TYPE OF EQUIPMENT:

OPERATOR: Rob Yarger

FEET)		SAMPLE					PID FIELD	
ОЕРТН (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	ICATION	SCREEN (PPM)	REMARKS
0			0-6": Concrete S		l material (slag, bric	k)	0	No odors or staining
2			2-4': Fill materia	I (slag, brick) inte	rmingled with brown	clay (high, plasticity, soft, moist)	0	No odors or staining
4								
				DEPTH (FT)		NOTES:		
	WATER LEVEL DATA		BOTTOM OF		GROUNDWATER	NA = Not Applicable		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million		
NA	NA	NA	NA	4'	No			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

TEST PIT: TP - 1

### **MBELIA**

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 2

SHEET 2 OF

8

JOB: 2151177 CHKD BY: CK

### 300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: LaBella Env., LLC OPERATOR: Rob Yarger

TEST PIT LOCATION: 2

GROUND SURFACE ELEVATION NA

START DATE: 11/18/15

Time

10:05

TYPE OF EQUIPMENT:

LABELLA REPRESENTATIVE: Chris K.

DEPTH (FEET)		SAMPLE STRATA CHANGE		PID FIELD SCREEN								
DEP.	SAMPLE NO. AND DEPTH	(FEET)		VISUAL CLASSIFICATION (PPM)								
0			0-4": Asphalt 4"-2': Gravel and	d sand backfill (fo	ge tanks)	0	No odors or staining					
2			2-4': Gravel and	sand backfill (for	0	No odors or staining						
4			4'-6': Brown clay	(high plasticity, s	135.6	Black staining and heavy gasoline odors						
			Two USTs were identified within TP2 including one 1,000-gallon UST (Tank A) and one 2,000-gallon UST (Tank B). Tank A was 48" in diamater while Tank B was 64" in diamater. Tank A had 31.5" of fluid inside of it while Tank B had 8" of fluid inside of it. Based on observations the fuild in each of the USTs appeared to be diluted gasoline (mixed with water). Samples of the fluid from each UST were collected and submitted for analytical testing to confirm the nature of the									
			fluid. PID readings were checked at the fill ports for each UST ranging in concentration from 900- 2,000 PPM. At least 3, 1-inch, empty pipes were identified in TP-2 running north-south along the western side-wall of the test pit. The pipes appeared to be running from the USTs to the northern									
			gallons of fluid v disposal. Based	vill be removed fro	om the USTs by EPS of the USTs and re	s registered at 2 PPM. Approximately 860 S of Vermont on 11/20/15 for proper sidual contamination proximate such, a spill						
	<u> </u>			DEPTH (FT)		NOTES:	l	I				
	WATER LEVEL DATA		воттом оғ	воттом оғ	GROUNDWATER	NA = Not Applicable						
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	RED PPM = Parts Per Million						
NA	NA	NA	NA	6'	No							

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

### LABELLA Associates, D.P.C.

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 3

SHEET 3 OF

JOB: 2151177

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: LaBella Env., LLC
OPERATOR: Rob Yarger
LABELLA REPRESENTATIVE: Chris K.

TEST PIT LOCATION: 3

GROUND SURFACE ELEVATION NA

START DATE: 11/18/15

Time

12:10

8

TYPE OF EQUIPMENT:

							1	T			
ОЕРТН (FEET)		SAMPLE					PID FIELD SCREEN				
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	ICATION	(PPM)	REMARKS			
0			0-6": Concrete s 6"-2': Sand back	lab fill intermingled w	g, brick)	0	No odors or staining				
2			2'-4': Brown clay	(low plasticity, so	ed with fill materials (slag, brick)	0	No odors or staining				
4			4'-6': Brown clay	(low plasticity, so	ed with fill materials (slag, brick)	0	Slight grease odor.				
6			6'-8': Brown clay	(low plasticity, so	ed with fill materials (slag, brick)	16	Slight grease odor.				
8			8'-10': Brown cla	y (low plasticity, s	gled with fill materials (slag, brick)	110	Strong hydraulic oil odor proximate western hydraulic cylinder.				
10			Residual hydrau	t cylinders and or lic oil was observ							
			proximate 8'-10'	bgs.							
				DEPTH (FT)		NOTES:					
	WATER LEVEL DATA		воттом оғ	BOTTOM OF	GROUNDWATER	NA = Not Applicable					
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED						
NA	NA NA NA NA 10' No BGS = Below the Ground Surface										

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

### MBELLA

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 4

SHEET 4 OF

JOB: 2151177

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: LaBella Env., LLC OPERATOR: Rob Yarger LABELLA REPRESENTATIVE: Chris K.

TEST PIT LOCATION: 4 START DATE: 11/18/15

GROUND SURFACE ELEVATION NA

Time

13:30

8

TYPE OF EQUIPMENT:

DEPTH (FEET)		SAMPLE					PID FIELD	
DEPTH	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	ICATION	SCREEN (PPM)	REMARKS
0			0-6": Concrete s	lab	0	No odors or staining		
2			6"-2': Brown clay	(low plasticity, se	oft, moist) interming	ed with fill materials (slag, brick)	-	3
			2'-4.5': Brown cla	ay (low plasticity,	soft, moist) intermin	gled with fill materials (slag, brick)	0	No odors or staining
4.5								
			and running in a inch copper pipe	n east-west direc was also identifi	tion coming out of th	pes were noted to be filled with concrete the west side-wall of the test pit. One 1/2- ing north-south along the eastern side of the		
				DEPTH (FT)		NOTES:		
	WATER LEVEL DATA		BOTTOM OF		GROUNDWATER	NA = Not Applicable		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million		
NA	NA	NA	NA	4.5'	No			
		•						

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

### LABELLA Associates, D.P.C.

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 5

SHEET 5 OF

JOB: 2151177

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

LABELLA REPRESENTATIVE: Chris K.

CONTRACTOR: LaBella Env., LLC
OPERATOR: Rob Yarger

TEST PIT LOCATION: 5

GROUND SURFACE ELEVATION NA

START DATE: 11/18/15

Time

14:00

8

TYPE OF EQUIPMENT:

	1		1				1			
ОЕРТН (РЕЕТ)		SAMPLE					PID FIELD			
рертн	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			SCREEN (PPM)	REMARKS				
0			0-4": Asphalt		0	No odors or staining				
			4"-2': Fill materia	als (slag, brick)		Ů	No odora or staining			
2			2'-4': Fill materia	ıls (slag, brick)	0.1	No odors or staining				
4										
			Refusal was end	countered at 4" bo	gs due to a hard-like	slag material.				
			1	DEPTH (FT)		NOTES:				
	WATED	LEVEL DATA	BOTTOM OF		GROI INDWATED	NA = Not Applicable				
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million				
NA	NA	NA NA	NA	4'	No	BGS = Below the Ground Surface				

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

# MBELLA

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 6

SHEET 6 OF JOB: 2151177

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

OPERATOR:

CONTRACTOR: LaBella Env., LLC

TEST PIT LOCATION: 6 Rob Yarger

GROUND SURFACE ELEVATION NA

START DATE: 11/18/15

Time

14:30

8

TYPE OF EQUIPMENT:

LABELLA REPRESENTATIVE: Chris K.

ОЕРТН (FEET)		SAMPLE					PID FIELD	
DEPTH	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	CICATION	SCREEN (PPM)	REMARKS
0			0-4": Concrete 4"-2': Fill materia	als (slag, wood, bi	rick)		0	No odors or staining
2			2'-4': Brown clay	(high plasticity, s	oft, moist) interming	eled with fill materials (slag, wood, brick)	0	No odors or staining
4								
				DEDTIL (ST)		luozzo.		
				DEPTH (FT)	1	NOTES:		
5.175		LEVEL DATA	BOTTOM OF			NA = Not Applicable		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million		
NA	NA	NA	NA	4'	No			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

### LABELLA Associates, D.P.C.

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 7

SHEET 7 OF

8

JOB: 2151177

CHKD BY: CK

Time

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

CONTRACTOR: LaBella Env., LLC
OPERATOR: Rob Yarger
LABELLA REPRESENTATIVE: Chris K.

TEST PIT LOCATION: 7

GROUND SURFACE ELEVATION NA START DATE: 11/18/15

14:40

TYPE OF EQUIPMENT:

(FEET)		SAMPLE					PID FIELD	
ОЕРТН (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	CICATION	SCREEN (PPM)	REMARKS
0			0-4": Concrete 4"-2': Fill materia	als (slag, wood, b	rick)		0	No odors or staining
2			2'-4': Brown clay	(high plasticity, s	soft, moist) interming	led with fill materials (slag, wood, brick)	0	No odors or staining
4								
				DEPTH (FT)		NOTES:		
	WATER	LEVEL DATA	BOTTOM OF	BOTTOM OF	GROUNDWATER	NA = Not Applicable		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million		
NA	NA	NA	NA	4'	No			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

# MBELLA

#### PROJECT

Buffalo Niagara Riverkeeper 1660 Niagara Street, Buffalo, New York TEST PIT: TP - 8

SHEET 8 OF

JOB: 2151177

CHKD BY: CK

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTANTS

LABELLA REPRESENTATIVE: Chris K.

CONTRACTOR: LaBella Env., LLC OPERATOR: Rob Yarger

TEST PIT LOCATION: 8 START DATE: 11/18/15

GROUND SURFACE ELEVATION NA

Time

14:50

8

TYPE OF EQUIPMENT:

ОЕРТН (FEET)		SAMPLE					PID FIELD	
DEPTH	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)			VISUAL CLASSIF	ICATION	SCREEN (PPM)	REMARKS
0			0-6": Concrete	als (slag, wood, bi	rick)		0	No odors or staining
2			2.1 mindene	no (olag, wood, bi	noky			
			2'-4': Brown clay	(high plasticity, s	oft, moist) interming	led with fill materials (slag, wood, brick)	0	No odors or staining
4								
				DEPTH (FT)	I	NOTES:		
		LEVEL DATA	BOTTOM OF			NA = Not Applicable		
DATE	TIME	ELAPSED TIME	CASING	TEST PIT	ENCOUNTERED	PPM = Parts Per Million		
NA	NA	NA	NA	4'	No			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

# 2018 LABELLA ASSOCIATES DRAFT REMEDIAL INVESTIGATION REPORT



1660 Niagara Street Buffalo, New York Remedial Investigation

**TEST BORING LOG** 

**BORING: RI-SB-1** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

DRILLER: Matt Pepe

TIME: 830 to 845

DATUM:

LABELLA REPRESENTITIVE: J Dombrowski

START DATE: 5/30/2017

END DATE: 5/30/2017 DRIVE SAMPLER TYPE:

TYPE OF DRILL RIG:

INSIDE DIAMETER: ~ 1.8-Inch

AUGER SIZE AND TYPE:

DEPTH

20'

WELL

INSTALLED

YES

WELL ID

MW-1

DATE

5/30/

2017

OTHER:

OVERBURDEN SAMPLING METHOD: Direct Push

			SAMF	PLE					
DEPTH (FT)	BLOW COUNT	SAMPLE RECOVERY	PID FIELD SCREEN (PPM)	RAD COUNT	STRATA CHANGE	REM	ARKS	VISUAL CLASSIFICATION	
0-1		6"	0.0	4,500			aining dors	0' - 0.3' Black Fill Material – Asphalt and Concrete	
1-2		6"	0.0	4,700		u	"	0.3' – 8' Brown Silty Clay (HP,MS, Moist) 8' – 10' Brown Silty Clay (MP, MS, Wet)	
2-3		6"	0.0	5,200		u	"	10' – 19' Brownish-Gray Silty Clay (MP, LS, Wet)	
3-4		6"	0.0	4,700		"	"	19' – 20' Brown Silty Clay (MP,MS, Wet)	
4-5		6"	0.0	4,200		"	"		
5-6		8"	0.0	4,200		"	"		
6-7		8"	0.0	4,500		"	"		
7-8		8"	0.0	5,000		"	"		
8-9		8"	0.0	5,200		"	"		
9-10		8"	0.0	4,800		"	"		
10-11		7"	0.0	5,000		"	"		
11-12		7"	0.0	5,200		"	"		
12-13		7"	0.0	4,800		"	"		
13-14		7"	0.0	4,200		"	"		
14-15		7"	0.0	4,800		"	"		
15-16		9.6"	0.0	4,600		"	"		
16-17		9.6"	0.0	4,900		"	"		
17-18		9.6"	0.0	4,400		"	"		
18-19		9.6"	0.0	4,500		"	"		
19-20		9.6"	0.0	4,200		u	"		
GROUN	GROUNDWATER ENCOUNTERED			NOTES:	RI-SB-1D	1011 @	9 830	1	



### **TEST BORING LOG**

1660 Niagara Street Buffalo, New York Remedial Investigation **BORING: RI-SB-2** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

DRILLER: Matt Pepe

TIME: 850 to 915

DATUM:

LABELLA REPRESENTITIVE: J Dombrowski

START DATE: 5/30/2017

END DATE: 5/30/2017 DRIVE SAMPLER TYPE:

INSIDE DIAMETER: ~ 1.8-Inch

TYPE OF DRILL RIG:

AUGER SIZE AND TYPE:

OVERBU	JRDEN SA	MPLING M	ETHOD: D	Direct Pus	sh	OTHER:				
			SAMF	PLE						
DEPTH (FT)	BLOW COUNT	SAMPLE RECOVERY	PID FIELD SCREEN (PPM)	RAD COUNT	STRATA CHANGE	REMARKS	VISUAL CLASSIFICATION			
0-1		2.4"	0.0	4,500		No Staining or Odors	0' – 5' Brown Silty Clay Intermingled With Fill Material Consisting of Concrete, Gravel, and			
1-2		2.4"	0.0	4,600		u n	Brick (LP, LS, M)			
2-3		2.4"	0.0	5,200		u n	5' – 5.3' Brown Silty Clay With Staining and Petroleum-Type Odors (MP,MS, M)			
3-4		2.4"	0.0	4,800		u n	5.3' – 7' Brown Silty Clay With Slight Petroleum-Type Odor (MP,MS, M)			
4-5		2.4"	0.0	4,200		u n	7' – 7.5' Fallback			
5-6		6"	637	4,700		Strong Petroleum Odor and Staining	7.5' – 12' Gray Silty Clay (MP, MS, Wet) 12' – 20' Brown Silty Clay (MP, MS, Wet)			
6-7		6"	85	4,700		No Staining or Odors				
7-8		6"	20	4,500		u n				
8-9		6"	1.0	4,500		u n				
9-10		6"	0.6	4,800		u n				
10-11		6"	0.0	4,300		u n				
11-12		6"	0.0	4,400		u n				
12-13		6"	0.0	4,700		u n				
13-14		6"	0.0	4,500		u n				
14-15		6"	0.0	4,400		u n				
15-16		12"	264	4,300		Strong Petroleum Odor and Staining				
16-17		12"	0.0	4,800		No Staining or Odors				
17-18		12"	0.0	4,700		u n				

**GROUNDWATER ENCOUNTERED** 

18-19

19-20

NOTES: RI-SB-2D1213 @ 900; RI-SB-2D55.3 @ 850

DEPTH WELL ID DATE WELL INSTALLED 5/30/ 20' YES MW-2 2017

12"

12"

0.0

0.0

5,100

4,200



#### **TEST BORING LOG**

1660 Niagara Street Buffalo, New York Remedial Investigation **BORING: RI-SB-3** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

**DRILLER: Matt Pepe** 

TIME: 915 to 945

DATUM:

LABELLA REPRESENTITIVE: J Dombrowski

START DATE: 5/30/2017

END DATE: 5/30/2017

DRIVE SAMPLER TYPE:

INSIDE DIAMETER: ~ 1.8-Inch

OTHER:

TYPE OF DRILL RIG:

AUGER SIZE AND TYPE:

OVERBURDEN SAMPLING METHOD: Direct Push

			SAMF	PLE				
DEPTH (FT)	BLOW COUNT	SAMPLE RECOVERY	PID FIELD SCREEN (PPM)	RAD COUNT	STRATA CHANGE	REM	ARKS	VISUAL CLASSIFICATION
0-1		1.2"	0.0	4,400			ining or ors	0' – 9.5' Brown Silty Clay with Trace Concrete, Gravel, Brick, and Rock
1-2		1.2"	0.0	4,100		u	"	9.5' – 10' Brownish-Red Silty Clay (MP,MS,M)
2-3		1.2"	0.0	3,800		u	וו	10' – 12' Brownish-Gray Silty Clay (HS,MP,Wet)
3-4		1.2"	0.0	4,400		u	וו	12' – 14' Brownish-Gray Silty Clay (MS, HP, Wet)
4-5		1.2"	0.0	4,200		u	"	14' – 20' Brown Silty Clay (MP, MS, Wet)
5-6		2.8"	0.0	4,600		u	"	
6-7		2.8"	0.0	4,500		u	"	_
7-8		2.8"	0.0	4,100		u	"	_
8-9		2.8"	0.0	4,400		u	"	]
9-10		2.8"	0.0	4,500		u	"	]
10-11		10''	0.0	4,500		u	"	]
11-12		10''	0.0	4,100		u	"	]
12-13		10''	0.0	5,100		u .	"	]
13-14		10''	0.0	5,000		u .	"	]
14-15		10''	0.0	3,800		u .	"	]
15-16		10''	0.0	4,500		u .	"	]
16-17		10''	0.0	4,600		u .	"	1
17-18		10''	0.0	4,800		u	"	1
18-19		10''	0.0	4,700		u	"	1
19-20		10''	0.0	4,500		u	"	1
GROUN	DWATER	ENCOUNT	ERED	NOTES:	RI-SB-3D	910 @ 9	30	

#### GROUNDWATER ENCOUNTERED

DATE DEPTH WELL WELL ID INSTALLED 5/30/ 20' YES MW-3 2017

NOTES: RI-SB-3D910 @ 930



1660 Niagara Street Buffalo, New York Remedial Investigation

**TEST BORING LOG** 

**BORING: RI-SB-4** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

DRILLER: Matt Pepe

TYPE OF DRILL RIG:

TIME: 950 to 1015

DATUM:

LABELLA REPRESENTITIVE: J Dombrowski

START DATE: 5/30/2017

END DATE: 5/30/2017 DRIVE SAMPLER TYPE:

INSIDE DIAMETER: ~ 1.8-Inch

OTHER:

AUGER SIZE AND TYPE:

OVERBURDEN SAMPLING METHOD: Direct Push

O T END								OTTIEK.		
		_	SAME							
DEPTH (FT)	BLOW COUNT	SAMPLE RECOVERY	PID FIELD SCREEN (PPM)	RAD COUNT	STRATA CHANGE	REM	ARKS	VISUAL CLASSIFICATION		
0-1		0.16"	0.0	4,500			ining or ors	0' – 4.5' Brown Silty Clay with Trace Gravel,  Brick, Rock, Crushed Concrete		
1-2		0.16"	0.0	4,300		u	"	4.5' – 5' Brown Silty Clay with Trace Gravel		
2-3		0.16"	0.0	4,500		u	"	(MP, MS, M) 5' – 15' Brownish-Black Silty Clay with Trace		
3-4		0.16"	0.0	4,200		u	"	Gravel (LP, LS, Sat)		
4-5		0.16"	0.0	4,100		u	"			
5-6		2.4"	0.0	4,500		u	"	_		
6-7		2.4"	0.0	4,800		u	"	_		
7-8		2.4"	0.0	4,400		u	"	_		
8-9		2.4"	0.0	4,300		u	"	-		
9-10		2.4"	0.0	4,300		u	"	-		
10-11		0''	-	-		u	"			
11-12		0''	-	-		u	"			
12-13		0''	-	-		u	"			
13-14		0''	-	-		u	"			
14-15		0''	-	-		u	"	_		
15-16		2.4"	0.0	4,500		u	"	_		
16-17		2.4"	0.0	4,700		u	"	1		
17-18		2.4"	0.0	4,700		и	"	1		
18-19		2.4"	0.0	4,500		u	"	1		
19-20		2.4"	0.0	4,500		u	"	1		
GROUN	GROUNDWATER ENCOUNTERED			NOTES:	RI-SB-4D:	12 @ 100	00	1		

DATE DEPTH WELL WELL ID INSTALLED 5/30/ 20' YES MW-4 2017



1660 Niagara Street Buffalo, New York Remedial Investigation

**TEST BORING LOG** 

**BORING: RI-SB-5** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

**DRILLER: Matt Pepe** 

START DATE: 5/30/2017

TIME:1145 to

1215 DATUM:

LABELLA REPRESENTITIVE: J Dombrowski

INSTALLED

YES

MW-5

5/30/

2017

20'

TYPE OF DRILL RIG: **AUGER SIZE AND TYPE:**  DRIVE SAMPLER TYPE:

INSIDE DIAMETER: ~ 1.8-Inch

END DATE: 5/30/2017

OTHER:

OVERBURDEN SAMPLING METHOD: Direct Push

DEPTH   BLOW   COUNT   RECOVERY   PID FIELD   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT   CHANGE   COUNT				SAMF	PLE				
O-1							REM	ARKS	VISUAL CLASSIFICATION
1-2		COUNT	RECOVERY		COUNT	CHANGE			
1-2	0-1		2.4"	0.0	4,700				
3-4	1-2		2.4"	0.0	4,300				
4-5	2-3		2.4"	0.0	4,500		u	"	14' – 20' Gray Silty Sand (MP, MS, Sat)
5-6	3-4		2.4"	0.0	5,200		u	n,	1
6-7	4-5		2.4"	0.0	4,500		u	n	
7-8	5-6		2.4"	0.0	4,400		u	נו	
8-9	6-7		2.4"	0.0	3,800		u	נו	1
9-10	7-8		2.4"	0.0	4,500		u	n	
10-11	8-9		2.4"	0.0	4,200		и	n	
11-12	9-10		2.4"	0.0	4,300		и	n	
12-13	10-11		0.12"	0.0	3,900		и	"	
13-14	11-12		0.12"	0.0	4,400		ш	"	1
14-15	12-13		0.12"	0.0	4,500		и	n	
15-16 6" 0.0 4,400 " "  16-17 6" 0.0 4,100 " "  17-18 6" 0.0 4,200 " "  18-19 6" 0.0 4,400 " "  19-20 6" 0.0 4,700 " "  GROUNDWATER ENCOUNTERED NOTES: RI-SB-5D1314 @ 1200	13-14		0.12"	0.0	4,400		и	n	
16-17 6" 0.0 4,100 " " 17-18 6" 0.0 4,200 " " 18-19 6" 0.0 4,400 " " 19-20 6" 0.0 4,700 " " GROUNDWATER ENCOUNTERED NOTES: RI-SB-5D1314 @ 1200	14-15		0.12"	0.0	4,500		и	"	
17-18 6" 0.0 4,200 " "  18-19 6" 0.0 4,400 " "  19-20 6" 0.0 4,700 " "  GROUNDWATER ENCOUNTERED NOTES: RI-SB-5D1314 @ 1200	15-16		6"	0.0	4,400		и	"	1
18-19 6" 0.0 4,400 " "  19-20 6" 0.0 4,700 " "  GROUNDWATER ENCOUNTERED NOTES: RI-SB-5D1314 @ 1200	16-17		6"	0.0	4,100		и	"	1
19-20   6" 0.0 4,700   " "   GROUNDWATER ENCOUNTERED   NOTES: RI-SB-5D1314 @ 1200	17-18		6"	0.0	4,200		u	"	-
GROUNDWATER ENCOUNTERED NOTES: RI-SB-5D1314 @ 1200	18-19		6"	0.0	4,400		u	"	-
	19-20		6"	0.0	4,700		"	"	1
	GROUN	IDWATER	ENCOUNTI	FRFD	NOTES:	RI-SB-5D1	1314 @	1200	1
						55 55			



1660 Niagara Street Buffalo, New York Remedial Investigation

**TEST BORING LOG** 

**BORING: RI-SB-6** 

Sheet 1 of 1 JOB: 2161447 Checked by:

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

**DRILLER: Matt Pepe** 

TIME:1220 to

1240

LABELLA REPRESENTITIVE: J Dombrowski

INSTALLED

YES

MW-6

5/30/

2017

20'

START DATE: 5/30/2017

DATUM:

TYPE OF DRILL RIG:

**AUGER SIZE AND TYPE:** 

DRIVE SAMPLER TYPE: INSIDE DIAMETER: ~ 1.8-Inch

END DATE: 5/30/2017

OTHER:

OVERBURDEN SAMPLING METHOD: Direct Push

			SAMP	LE			
DEPTH	BLOW	SAMPLE	PID FIELD	RAD	STRATA	REMARKS	VISUAL CLASSIFICATION
(FT)	COUNT	RECOVERY	SCREEN (PPM)	COUNT	CHANGE		
0-1		4''	0.0	4,400		No Staining or	0' – 9' Brown Silty Clay with Trace Gravel,
1.0						Odors ""	Brick, Concrete, and Asphalt (LP, LS, M)
1-2		4"	0.0	4,300		<i>"</i>	9' – 20' Brown Silty Clay (MP, MS, Wet)
2-3		4''	0.0	5,200		u n	
3-4		4''	0.0	4,800		u n	
4-5		4"	0.0	4,700		u n	
5-6		2.4"	0.0	4,300		u n	
6-7		2.4"	0.0	4,600		u n	
7-8		2.4"	0.0	4,700		u n	
8-9		2.4"	0.0	4,100		u n	
9-10		2.4"	0.0	4,400		u n	
10-11		0.0"	-	-		-	
11-12		0.0"	-	-		-	
12-13		0.0"	-	-		-	
13-14		0.0"	-	-		-	
14-15		0.0"	-	-		-	
15-16		0.0"	-	-		-	1
16-17		0.0"	-	-		-	1
17-18		0.0"	-	-		-	1
18-19		0.0"	-	-		-	
19-20		0.0"	-	-		-	
GROUN	DWATER	ENCOUNT	ERED	NOTES:	RI-SB-6D	12 @ 1230	
	DEPTH	WELL	WELL ID		J_ J	C =====	
ı I	l	16TALLED		l			



#### **TEST BORING LOG**

1660 Niagara Street Buffalo, New York Remedial Investigation **BORING: RI-SB-7** 

Sheet 1 of 1 **JOB:** 2161447

CONTRACTOR: LaBella LLC

300 Pearl Street, Suite 130 Buffalo, NY 14202

TIME:915

to 950

Checked by:

**DRILLER: Matt Pepe** 

START DATE: 8/18/2017 END DATE: 8/18/2017

DATUM:

LABELLA REPRESENTITIVE: J Dombrowski TYPE OF DRILL RIG:6620 DT

**D**RIVE SAMPLER TYPE:

AUGER SIZE AND TYPE:

OTHER:

INSIDE DIAMETER: ~ 1.8-Inch

OVERBURDEN SAMPLING METHOD: Direct Push

CVLIND	JINDEIN JA	IVII LIIVO IV		1 C C C T U J I I		JIIILIN.
			SAMPLE		]	
DEPTH (FT)	BLOW	SAMPLE RECOVERY	PID FIELD SCREEN (PPM)	STRATA CH <b>A</b> NGE	REMARKS	VISUAL CLASSIFICATION
0-1		4''	0.0		No Staining	0' – 5' Brownish Black Silty Clay with Trace Gravel and
					or Odors	Cement (MP, MS, M)
1-2		4"	0.0		0 0	5' – 7' Brownish Black Silty Clay with Trace Gravel (MP, MS, M)
2-3		4"	0.0		0 0	7' – 10' Gray Silty Clay (MP, MS, M)
3-4		4"	0.0		0 0	10'-11' Gray Silty Clay (MP, MS, M) 11' – 13' Gray Silty Clay with Green Streaks (MP, MS,
4-5		4''	0.0		0 0	M) 13' – 15.5' Gray Silty Clay (LP, LS, Wet)
5-6		4"	0.0		0 0	15.5' – 20' Gray Silty Clay (LP, LS, Sat)
6-7		4"	0.0		0 0	
7-8		4"	0.0		" "	
8-9		4′′	0.0		0 0	
9-10		4''	0.0		" "	
10-11		12"	0.1		Metalic Odor	
11-12		12"	0.1		" "	
12-13		12"	0.1		" "	
13-14		12"	0.0		No Staining or Odors	
14-15		12"	0.0		0 0	
15-16		1"	0.0		0 0	
16-17		1"	0.0		0 0	
17-18		1"	0.0		0 0	
18-19		1"	0.0		0 0	
19-20		1"	0.0		0 0	
CDOLIN	DIALATED	FNICOLINITI	-050	NOTES O	· · · · ·	1 1 1 4 2 (1 1

#### **GROUNDWATER ENCOUNTERED**

NOTES: Groundwater encountered at 13 ft bgs.

DATE	DEPTH	WELL	WELL ID
		INSTALLED	
8/18/20 17	13	YES	RI-MW-7

PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation TEST PIT: RI-TP-1

1 OF

JOB: 2161447 CHKD BY:

SHEET

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

NA

	S	SAMPLE		PID FIELD	RAD FIELD	
DEPIR (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2	0.5'	0.0 '- 0.5' Crushed Concrete Backfill Material 0.5' - 4' Brown Silty Clay with Trace Gravel, Brick, and Concrete 4' - 10 ' Brownish Red Clay 10' - 12' Brownish Gray Silty Clay with Organics	0	7,100	No Staining/Od
	2-4	4'		0	6,500	No Staining/Od
	4-6			0	7,500	No Staining/Oc
	6-8			0	10,000	No Staining/Oo
	8-10	10'		0	6,400	No Staining/Oc
2	10-12		Note: Sample Collected - RI-TP-1-SS1 @ 8:30 DUP Collected - TOC 815	0	6,100	No Staining/Oc

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LABELLA Associates, D.P.C.

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-2

SHEET **JOB: 2161447** 

1 OF

1

dial Investigation

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

START DATE: 5/18/17

GROUND SURFACE ELEVATION NA

START TIME: 855

DATUM: END TIME:

CHKD BY:

NA 930

LABELLA REPRESENTATIVE: JLD
TYPE OF EQUIPMENT: Track Mounted Excavator

**JEPTH (FEET** SAMPLE PID RAD FIELD FIELD SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0.5' 0 - 0.5' Concrete Backfill Material 0.5' - 4' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, and Wood (LP, LS, M) 0-2 4' - 4.5' Red Fill Material - Crushed Brick 0 6,500 No Staining/Odors 4.5' - 8' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, Wood (LP, LS, Wet) 8' - 12' Brownish Gary Clay (LP, HS, Wet) 7,000 No Staining/Odors 2-4 0 4.5 7,500 No Staining/Odors 4-6 0 No Staining/Odors 6-8 0 8,000 8' 8-10 0 7,500 No Staining/Odors 10-12 0 7,500 No Staining/Odors Note: @ approximately 6', water began trickling into excavation Sample Collected - RI-TP-2D1012 @ 930 12

#### **GENERAL NOTES**

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LABELLA Associates, D.P.C.

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-3
SHEET

1 OF

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

OP	ERATOR: Mike	e Windrel, Jr.	GROUND SURFACE ELEVATION NA	DATUM:		NA
		SENTATIVE: JLD	START DATE: 5/18/17 START TIME: 930	END TIME:	950	
DEPTH (FEET)		SAMPLE STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
	AND DEPTH	(FEET)		` ′	` ′	
	0-2		0' - 0.5' Concrete Backfill Material 0.5' - 3' Brown Silty Clay with Trace Gravel, Brick, Slag, and Wood (LP, LS, M) 3' - 3.5' Red Crushed Brick 3.5' - 4' Brownish Black Silty Clay with Trace Gravel (LP, LS, Wet) 4' - 6' Red Clay (HP, MS, Wet)	0	7,100	No Staining/Odo
	2-4	3' 3.5' 4'		0	7,500	No Staining/Odo
6	4-6			0	9,500	No Staining/Odd
-						
			Note: Water began entering the excavation at approximately 6' Sample Collected - RI-TP-3D34 @ 1000 DUP 2 Collected here - TOC 945			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LABELLA Associates, D.P.C.

PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation TEST PIT:RI-TP-4

SHEET

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

1 OF

		SENTATIVE: JLD IENT: Track Mounted	START DATE: 5/18/17 START TIME: 1030	END TIME:	1100	
ОЕРТН (FEET)		SAMPLE STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
	0-2	0.5'	0' - 0.5' Concrete Backfill Material 0.5' - 3' Brownish Black Silty Clay with Trace Gravel, Brick, Wood, and Slag (LP, LS, M) 3' - 6' Brownish Red Silty Clay with Trace Gravel, Brick, Wood, and Slag (LP, LS, Sat) 6' - 9' Brownish Red Clay (HP, MS, Wet) 9' - 10' Brownish Gray Silty Sand (MP, LS, Wet)	0	6,500	No Staining/Odo
	2-4	3'		0	7,100	No Staining/Odd
	4-6	6'		0	8,500	No Staining/Od
	6-8			0	9,500	No Staining/Od
10	8-10	9'		0	7,000	No Staining/Od
			Note: Could not advance further than 10' due to water entering the excavation Sample Collected - RI-TP-4/SS2 @ 1040	0	7,100	No Staining/Od

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-5 SHEET

1 OF

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

	PE OF EQUIPM	MENT: Track Mounted	d Excavator		I	
DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
	0-2	0.5'	0 - 0.5' Concrete Backfill Material 0.5' - 2' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, Wood (LP, LS,M) 2' - 3' Brownish Red Fill Material (Crushed Brick) 3' - 4' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, and Wood (MP, LS, M)	0	6,500	No Staining/Odo
	2-4	2' 3' 4'	4' - 8' Brownish Red Clay (HS, MP, M) 8' - 12' Brownish Gray Molttled Sandy Silt (MP, MS, Wet)	0	7,100	No Staining/Odo
	4-6	4		0	8,400	No Staining/Odo
	6-8	8'		0	9,100	No Staining/Odo
	8-10			0	7,000	No Staining/Odo
2	10-12		Note: Sample Collected - RI-TP-5D34 @ 1115	0	7,100	No Staining/Odo

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-6

SHEET

JOB: 2161447

CHKD BY:

END TIME:

1 OF

1

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

LABELLA REPRESENTATIVE: JLD

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START TIME: 1200 START DATE: 5/18/17

DATUM:

NA 1230

TYPE OF EQUIPMENT: Track Mounted Excavator SAMPLE PID RAD FIELD FIELD SCREEN SCREEN (PPM) SAMPLE NO STRATA CHANGE VISUAL CLASSIFICATION

		SAMPLE		PID FIELD	RAD FIELD	
<b>DEPTH (FEET)</b>	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2		0' - 0.5' Concrete Backfill Material 0.5' - 2' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, Wood (LP, LS,M) 2' - 3' Brownish Red Fill Material (Crushed Brick) 3' - 4' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, and Wood (MP, LS, M) 4' - 8' Brownish Red Clay (HS, MP, M)	0	6,500	No Staining/Odors
	2-4		8' - 12' Brownish Gray Molttled Sandy Silt (MP, MS, Wet)	0	7,100	No Staining/Odors
	4-6			0	8,000	No Staining/Odors
	6-8			0	5,900	No Staining/Odors
	8-10			0	6,000	No Staining/Odors
12	10-12		Note: Water entering excavation @ approximately 6 ft bgs Sample Collected - RI-TP-6D1112 @ 1145	0	6,100	No Staining/Odors

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LΛI	BEI	$\bot$ L $\land$
	Associa	tes. D.P.C.

TEST PIT: RI-TP-7 SHEET

1 OF

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC

TEST PIT LOCATION:

DATUM:

NA

OPERATOR: Mike Windrel, Jr. LABELLA REPRESENTATIVE: JLD GROUND SURFACE ELEVATION NA START DATE: 5/18/17

1230 END TIME:

CHKD BY:

1245

T'	YPE OF EQUIPN	SENTATIVE: JLD MENT: Track Mounted	START DATE: 5/18/17  Excavator	1230 END TIME:	1245	
ОЕРТН (FEET)		SAMPLE		PID FIELD SCREEN	RAD FIELD SCREEN	
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	(PPM)	(CPM)	REMARKS
	0-2		0'-0.5' Concrete Backfill Material 0.5' - 4' Brownish Black Silty Clay with Trace Gravel, Brick, Wood, and Slag	0	8,100	No Staining/Odors
4	2-4			0	8,000	No Staining/Odors
			Note: Water began to enter excavation at 4 ft bgs			
			Sample Collected - RI-TP-7D34 @ 1215			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LΛI	BEI	$\bot$ L $\land$
	Associa	tes. D.P.C.

TEST PIT: RI-TP-8

SHEET

1 OF

JOB: 2161447

CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC

TEST PIT LOCATION:

OPERATOR: Mik		GROUND SURFACE ELEVATION NA START DATE: 5/18/17 START TIME: 1245	DATUM: END TIME:	1300	NA
TYPE OF EQUIP	MENT: Track Mounted		PID FIELD	RAD FIELD	
SAMPLE NO.	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
		0' - 4' Brown Silty Clay with Trace Gravel and Brick			
0-2			17.9	6,500	Strong "Paint" Ode
2-4			2.3	5,500	No Staining/Odor
4	_				
	_				
	-				
	<u> </u> -				
		Note: Encountered a concrete pad and could not advance further than 4 ft bgs.  Strong "paint" odor as soon as we broke through the ground surface.			
		Sample Collected - RI-TP-8-SS3 @ 1245			
	- -				
	1				
	_				

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LΛI	BEI	$\bot$ L $\land$
	Associa	tes. D.P.C.

TEST PIT:RI-TP-9

CHKD BY:

SHEET

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI CONTRACTOR: LaBella LLC

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

START DATE: 5/18/17

GROUND SURFACE ELEVATION NA

START TIME: 1300

DATUM: END TIME: 1320

NA

1 OF

LABELLA REPRESENTATIVE: JLD TYPE OF EQUIPMENT: Track Mounted Excavator

	T CO EQUIPIO	MENT. Track Mounted	I LACAVAIOI			
ОЕРТН (FEET)	8	SAMPLE		PID FIELD SCREEN	RAD FIELD SCREEN	
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	(PPM)	(CPM)	REMARKS
	0-2		0' - 3' Brown Silty Clay with Trace Gravel, Brick, and Wood 3' - 4' Brownish Red Silty Clay with Large Rocks.	0	6,500	No Staining/Odors
4	2-4			0	8,000	No Staining/Odors
			Note: Encountered a large boulders in the bottom of excavation and could not advance further than 4 ft bgs.			
			Sample Collected - RI-TP-9D23 @ 1315			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LΛI	BEI	$\bot$ L $\land$
	Associa	tes. D.P.C.

TEST PIT:RI-TP-10

1 OF

JOB: 2161447

SHEET

CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC

TEST PIT LOCATION:

LAE	BELLA REPRES	RATOR: Mike Windrel, Jr. GROUND SURFACE ELEVATION NA  LLA REPRESENTATIVE: JLD START DATE: 5/18/17 START TIME: 1330  OF EQUIPMENT: Track Mounted Excavator			1400	NA
DЕРТН (FEET)		SAMPLE STRATA CHANGE	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
DE	AND DEPTH	(FEET)	VIOUAL GLAGGII IGATION	(1 1 1/1)	(OI IVI)	REMARKO
	0-2		0' - 4' Brown Silty Clay with Trace Gravel 4' - 5' Brownish Red Silty Clay with Large Rocks	0	6,100.0	No Staining/Odor
	2-4			0	7,100.0	No Staining/Odor
5	5			0	6,500	No Staining/Odors
			Note: Encountered a large boulders in the bottom of excavation and could not advance further than 5 ft bgs. Water began entering the excavation @ approximately 4 ft bgs.			
			Sample Collected - RI-TP-10/SS4 @ 1345			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-11

1 OF

JOB: 2161447

SHEET

CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC

TEST PIT LOCATION:

		MENT: Track Mounted	B Excavator	_		
DEPTH (FEET)	SAMPLE NO.	SAMPLE STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
<u> </u>	0-2		0' - 4' Brown Silty Clay with Trace Gravel, Brick, Wood, Organics, Large Rocks (LP, LS, N 4' - 7' Brownish Red Silty Clay with Trace Gravel, Brick, Large Rocks, and Organics (LP, LS, Wet) 7' - 8' Brownish Red Silty Clay with Trace Gravel, Large Bricks, and Boulders (LP, LS, Sat	0	7,000	No Staining/Od
	2-4			0	7,000	No Staining/Od
	4-6			0	8,500	No Staining/Od
8	6-8			0	8,100	No Staining/Od
			Note: Water began entering the excavation @ approximately 7-8 ft bgs. Concrete foundation located within the southeast portion of the excavation.  Sample Collected - RI-TP-11D78 @ 1415			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-12 SHEET

1 OF 1

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

		SENTATIVE: JLD MENT: Track Mounted	START DATE: 5/18/17 START TIM Excavator	E: 1445	END TIME:	1500	
ОЕРТН (FEET)		SAMPLE STRATA CHANGE (FEET)	VISUAL CLASSIFICATION		PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
	0-2		0' - 8' Brownish Black Silty Clay with Trace Gravel, Brick, Slag, W. 8' - 11' Brownish Gray Mottled Silty Clay (MP, MS, Wet) 11'-12' Gray Clay (MP, HS, Wet)	lood (LS, LP, M)	0	6,500	No Staining/Odors
	2-4				0	6,100	No Staining/Odors
	4-6				0	5,200	No Staining/Odors
	6-8				0	7,100	No Staining/Odors
	8-10				0	7,000	No Staining/Odors
12	10-12		Note: Groundwater entering the excavation heavily from the south Sample Collected - RI-TP-12D1112	portion of excavation.	0	6,300	No Staining/Odors

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

<b>LAB</b>	E	ates, C	<b>^</b>

TEST PIT: RI-TP-13
SHEET

1 OF

JOB: 2161447 CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC
OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

NA

TYPI	E OF EQUIPM	IENT: Track Mounted	d Excavator			
-	SAMPLE NO STRATA CHANGE				RAD FIELD SCREEN	
5	SAMPLE NO. AND DEPTH	(FEET)	VISUAL CLASSIFICATION	(PPM)	(CPM)	REMARKS
	0-2		0' - 2' Brown Silty Clay with Trace Gravel and Brick	0	6,500	No Staining/O
_						
_						
-						
_			Note: Hit a concrete foundation at approximately 2 ft bgs. Sample Collected - RI-TP-13/SS-5 @ 1530			
-						

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

LΛI	BEI	$\bot$ L $\land$
	Associa	tes. D.P.C.

TEST PIT: RI-TP-14 SHEET

1 OF

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 5/18/17

DATUM:

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD TYPE OF EQUIPMENT: Track Mounted Excavator START TIME: 1540 END TIME: 1550

	PE OF EQUIPM	MENT: Track Mounted	Excavator		1	
ОЕРТН (FEET)	5	SAMPLE		PID FIELD SCREEN	RAD FIELD SCREEN	
DEPT	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	(PPM)	(CPM)	REMARKS
			0' - 2' Brown Silty Clay with Trace Gravel and Brick			
	0-2			0	6,300	No Staining/Odors
2						
			Note: Hit a concrete foundation at approximately 2 ft bgs. Sample Collected - RI-TP-14/SS-6 @ 1600			
			Campio concessor in in the engineer			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-15 SHEET

JOB: 2161447

CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM: END TIME:

NA

1 OF

H H	S	SAMPLE		PID FIELD	RAD FIELD	
DEPTH (FEET)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2		0' - 6' Brown Silty Clay with Trace Gravel, Brick, Wood, and Boulders (LP, LS M) 6' - 8' Brownish Gray Mottled Silty Clay (MS, MP, Wet)	0	6,500	No Staining/Odo
	2-4			0	7,000	No Staining/Odo
	4-6			0	8,100	No Staining/Odo
3	6-8			0	7,500	No Staining/Odo
			Note: Large boulders encountered at the bottom of the excavation. Water entering the excavation at approximately 6 ft bgs.			
			Sample Collected - RI-TP-15D46 @ 1615			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-8 RE

SHEET JOB: 2161447 1 OF

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN CONTRACTOR: LaBella LLC

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD

START DATE: 7/27/17 START TIME: 1230 END TIME: 1420

		SAMPLE	SAMPLE		RAD FIELD	
טבר וח (רבבי)	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2		0' - 4' Previously Excavated Material from 5/18/2017 4' - 6' Brown Red Slag Material 6' - 8.5' Gray Sandy Clay with Trace Gravel	0	7,050	No Staining/Odo
	2-4			0	7,300	No Staining/Odo
	4-6			0	8,500	No Staining/Odo
	6-8			0	7,800	No Staining/Odo
0	8-10			0	7,000	No Staining/Odo
			Notes: Brown Red Slag was a very hard material. Needed to switch out bucket attachment for hammer. Water enterned excavation @ Approx. 6 ft bgs. Sample collected - RI-TP-8D68 @ 1415			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT: TP-8 RE

### LABELLA Associates, D.P.C.

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-16

SHEET

JOB: 2161447

1 OF 1

300 PEARL STREET, BUFFALO, NY
ENVIRONMENTAL ENGINEERING CONSULTAI
CONTRACTOR: LaBella LLC

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/27/17 START TIME: 1000

DATUM: END TIME:

CHKD BY:

NA 1030

LABELLA REPRESENTATIVE: JLD
TYPE OF EQUIPMENT: Track Mounted Excavator

TYPE OF EQUIPMENT: Track Mounted Excavator SAMPLE PID RAD FIELD FIELD DEPTH ( SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0' - 2' Brown Silty Clay with Trace Gravel & Brick (LP, LS, M) 2' - 4' Brown Silty Clay with Trace Gravel, Brick, Shale, Crushed Concrete, & Asphalt 0-2 0 6,800 No Staining/Odors 4' - 8' Brownish Gray Silty Clay with Trace Gravel (MP, MS, Wet) 2-4 0 7,800 No Staining/Odors 8,200 No Staining/Odors 4-6 0 7.800 No Staining/Odors 6-8 0 8 Notes: No water was observed entering the excavation. This test pit is within five feet of Monitoring Well RI-MW-5. Sample Collected - RI-TP-16/SS7 @ 1000 Sample Collected - RI-TP-16D24 @ 1015

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-17

1 OF

1

SHEET

JOB: 2161447

CHKD BY:

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAR

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION: CONTRACTOR: LaBella LLC

GROUND SURFACE ELEVATION NA

START DATE: 7/27/17 START TIME: 1040 DATUM: NA END TIME: 1110

LABELLA REPRESENTATIVE: JLD TYPE OF EQUIPMENT: Track Mounted Excavator **JEPTH (FEET** SAMPLE PID RAD FIELD FIELD SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0' - 3' Brown Silty Clay with Trace Gravel & Brick (MP, MS, M) 3' - 4' Brownish Black silty Clay with Trace Gravel, Brick, and Rock (MP, MS, M) 4' - 5.5' Brownish Red Silty Clay (MP, MS, M) 0-2 6,800 No Staining/Odors 2-4 0 7,100 No Staining/Odors 8,500 No Staining/Odors 4-6 0 6 Notes: Water began entering excavation @ 5.5 ft bgs. Sample Collected - RI-TP-17/SS8 @ 1045 Sample Collected - RI-TP017D24 @ 1100

#### **GENERAL NOTES**

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-18

SHEET JOB: 2161447 1 OF

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

DATUM:

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD TYPE OF EQUIPMENT: Track Mounter			START DATE: 7/27/17 START TIME: 1115	TIME: 1115 END TIME:	1145	
ОЕРТН (FEET)	SAMPLE NO.	SAMPLE STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
П	0-2		0' - 5' Brown Silty Clay with Trace Gravel, Brick, Concrete, Rock, & Slag (LP, LS, M) 5' - 6' Brownish Red Silty Clay with Trace Gravel (MP, MS, M)	0	7,600	No Staining/Odors
	2-4			0	5,500	No Staining/Odors
6	4-6			0	7,800	No Staining/Odors
			Notes: Unknown odor noted throughout excavation; However, all soil screened has no direct odor. Water entered excavation @ 5 ft bgs. Sample Collected - RI-TP-18/SS9 @ 1115 Sample Collected - RI-TP-18D56 @ 1130			
				0		

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-19

JOB: 2161447

SHEET

1 OF

1

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/27/17

DATUM:

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD

START TIME: 1445 END TIME: 1545

			MENT: Track Mounted	Excavator	LIND TIME.	1040	
н (РЕЕТ)			SAMPLE STRATA CHANGE		PID FIELD SCREEN	RAD FIELD SCREEN	
	DEP.	SAMPLE NO. AND DEPTH	(FEET)	VISUAL CLASSIFICATION	(PPM)	(CPM)	REMARKS
		0-2		0' - 0.6' Brown Silty Clay with Trace Gravel, Rock, & Glass (LP, LS, M) 0.6' - 1.5' Light Brown Silty Clay with Trace Gravel and Brick (LP, LS, M) 1.5' - 4' Brownish Red Slag Matrerial 4' - 6' Brown Gray Silty Clay with Trace Gravel (MP, MS, Wet)	0	5,800	No Staining/Odors
		2-4			0	5,500	No Staining/Odors
	6	4-6			0	7,800	Slight Sweet Odor on Water that Entered Excavation
				Notes: Brown Red Slag was a very hard material. Needed to switch out bucket attachment for hammer.			
				Unknown odor observed while breaking up slag material. Sweet odor was observed in the first bucket of clay material below slag.  Sample Collected - RI-TP-19/SS10 @ 1500  Sample Collected - RI-TP19D68 @ 1530			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

### LABELLA Associates, D.P.C.

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-20

SHEET **JOB: 2161447** 

1 OF

1

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAI

LABELLA REPRESENTATIVE: JLD

TYPE OF EQUIPMENT: Track Mounted Excavator

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

6-8

7.5

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17 START TIME: 800

DATUM: END TIME:

CHKD BY:

NA 845

7.300

0.7

No Staining/Odors

SAMPLE PID RAD FIELD FIELD DEPTH ( SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0' - 2' Brown Silty Clay with Trace Gravel, Brick, Slag, and Rock 2' - 4' Brownish Red Slag Material Mixed with Brick 4' - 7.5' Gray Silty Clay with Trace Gravel 0-2 1.9 5,800 No Staining/Odors Strong "Paint" Odor 2-4 30.6 5,000 No Staining/Odors 7,400 4-6 0.3

Notes: Encountered the slag material @ 2' and observed paint odor in the soil beneath the slag. Odor was fairly strong but disipates quickly.

Sample Collected - RI-TP-20S11 @ 815

Sample Collected - RI-TP-20D12 @ 830 (MS/MSD Collected Here)

Sample Collected - RI-TP-20D67 @ 845

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-21

JOB: 2161447

1 OF

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17

DATUM:

SHEET

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD

START TIME: 855 END TIME: 930

DEPIH (FEET)	8	SAMPLE		PID FIELD	RAD FIELD	
- - -	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2		0' - 1' Brown Silty Clay with Trace Gravel, Brick, Rock, and Slag (LP, LS, M) 1' - 3' Grayish Red Silty Clay Material with Trace Gravel (MP, MS, M) 3' - 4.5' Brownish Red Slag Material with Brick 4.5' - 7.5' Gray Silty Clay with Trace Gravel (MP, MS, Wet)	0.1	7,400	No Staining/Odo
	2-4			0	7,800	No Staining/Odo
	4-6			0	6,400	No Staining/Odo
5	6-8			0	6,800	No Staining/Odo
			Notes: Water entered excavation @ about 6 ft bgs. Slag material was broken up with the bucket.			
			Sample Collected - RI-TP-21/SS12 @ 900 Sample Collected - RI-TP-21D67 @ 915			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-22

JOB: 2161447

CHKD BY:

SHEET

1 OF

1

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAR

> CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17

START TIME: 1015

DATUM:

NA

LABELLA REPRESENTATIVE: JLD END TIME: 1105 TYPE OF EQUIPMENT: Track Mounted Excavator SAMPLE PID RAD FIELD FIELD DEPTH ( SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0' - 1.5' Brown Silty Clay with Trace Gravel, Brick, Asphalt, and Slag (LP, LS, M) 1.5' - 5' Brownish Red Slag Material 0-2 5' - 7' Gray Silty Clay with Trace Gravel (MP, MS, M) 6,500 No Staining/Odors No Staining/Odors 2-4 0 7,400 No Staining/Odors 6,500 4-6 0 6.400 No Staining/Odors 7 6-8 0 Notes: Slag material encountered at 1.5 ft bgs. Brown red slag was a very hard material. Needed to switch out bucket attachment for hammer. Sample Collected - RI-TP-22/SS13 @ 1015 Sample Collected - RI-TP22D56 @ 1045

#### **GENERAL NOTES**

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-23

1 OF

1

JOB: 2161447 CHKD BY:

SHEET

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17 START TIME: 1145 DATUM:

NA

LABELLA REPRESENTATIVE: JLD

END TIME: 1200

TY		MENT: Track Mounted	START DATE: 7/28/17 START TIME: 1145	END TIME:	1200	
ОЕРТН (FEET)	SAMPLE NO. AND DEPTH	SAMPLE STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	PID FIELD SCREEN (PPM)	RAD FIELD SCREEN (CPM)	REMARKS
	0-2		0' - 6' Brown Silty Clay with Trace Gravel, Brick, and Rock (LP, LS, M) 6' - 7' Gray Silty Clay with Trace Gravel (MP,MS, Wet)	0	6,500	No Staining/Odors
	2-4			0	7,000	No Staining/Odors
	4-6			0	7,100	No Staining/Odors
7	6-8			0	6,800	No Staining/Odors
			Notes: Water entered excavation @ About 5 ft bgs. Sample Collected - RI-TP-23/SS14 @ 1150 Sample Collected - RI-TP-23D67 @ 1200			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-24

1 OF JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17

DATUM: END TIME:

SHEET

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD

START TIME: 1215

1320

	5	SAMPLE		PID FIELD	RAD FIELD	
•	SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
	0-2		0' - 3' Brown Silty Clay with Trace Gravel, Brick, Rock, and Slag (LP, LS, M) 3' - 4' Brown Shale Material & a Piece of Clay Tile Pipe 4' - 6' Brownish Red Silty Clay with Trace Gravel (MP, MS, M) 6' - 7.5' Brownish Red Slag Material - Crushed 7.5' - 8' Gray Silty Clay (LP, LS, Wet)	0	6,400	No Staining/Odo
	2-4			0	7,500	No Staining/Odo
	4-6			0	9,700	No Staining/Odo
	6-8			0	7,400	No Staining/Odo
			Notes: Bagged and screened sample @ 3-4 ft bgs that contained strong paint odor - No PID reading. The clay tile pipe that was uncovered had a strong paint odor and a PID reading of 16.8 ppm. Water entered excavation @ 7.5 ft bgs. Water was measured at 40".  Sample Collected - RI-TP-24/SS15 @ 1220 Sample Collected - RI-TP-24D34 @ 1245 Sample Collected - RI-TP-24D78 @ 1315			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT: RI-TP-25

1 OF

1

JOB: 2161447

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAR

> CONTRACTOR: LaBella LLC OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION:

GROUND SURFACE ELEVATION NA

START DATE: 7/28/17 START TIME: 1330

DATUM: END TIME:

SHEET

CHKD BY:

NA

LABELLA REPRESENTATIVE: JLD 1430 TYPE OF EQUIPMENT: Track Mounted Excavator SAMPLE PID RAD FIELD FIELD DEPTH ( SCREEN SCREEN STRATA CHANGE SAMPLE NO VISUAL CLASSIFICATION (PPM) (CPM) REMARKS (FEET) AND DEPTH 0' - 2' Brown Silty Clay with Trace Gravel and Brick (LP, LS, M) 2' - 3.5' Brownish Red Slag Material 0-2 3.5' - 6.5' GraySandy Clay (LP, LS, Wet) 7,200 No Staining/Odors 6.5 ' - 8' Gray Silty Clay with Trace Gravel (MP, MS, Wet) No Staining/Odors 2-4 0 7,400 No Staining/Odors 8,900 4-6 0 7.700 No Staining/Odors 6-8 0 8 Notes: Encountered slag material @ 2 ft bgs. Had to switch out bucket attachment for hammer. 19" of water in excavation. Water began entering excavation @ about 4 ft Sample Collected - RI-TP-25/SS16 @ 1400 Sample Collected - RI-TP-25D67 @ 1430

#### **GENERAL NOTES**

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

#### PROJECT 1660 Niagara Street Buffalo, New York Remedial Investigation

TEST PIT:RI-TP-26

SHEET JOB: 2161447

CHKD BY:

1 OF

300 PEARL STREET, BUFFALO, NY ENVIRONMENTAL ENGINEERING CONSULTAN

OPERATOR: Mike Windrel, Jr.

TEST PIT LOCATION: CONTRACTOR: LaBella LLC

GROUND SURFACE ELEVATION NA

START TIME: 1445

DATUM:

NA

LABELLA REPRESENTATIVE: JLD START DATE: 7/28/17 END TIME: 1515

	SAMPLE		PID FIELD	RAD FIELD	
SAMPLE NO. AND DEPTH	STRATA CHANGE (FEET)	VISUAL CLASSIFICATION	SCREEN (PPM)	SCREEN (CPM)	REMARKS
0-2		0' - 2' Brown Silty Clay with Trace Gravel (LP, LS, M) 2' - 3' Brownish Black Silty Clay with Slag & Asphalt (LP, LS, M) 3' - 5' Brownish Red Slag Material - Crushed 5' - 8' Gray Silty Clay with Trace Gravel (LP, LS, Wet)	0	8,500	No Staining/Odo
2-4			0	8,200	No Staining/Odo
4-6			0	7,200	No Staining/Odd
6-8			0	7,500	No Staining/Odo
		Notes: Water encountered @ bbout 6 ft bgs. Sample Collected - RI-TP-26/SS17 @ 1450			
		Sample Collected - RI-TP-26D56 @ 1510			

#### GENERAL NOTES

- 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES, TRANSITIONS MAY BE GRADUAL.
- 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED, FLUCTUATIONS OF GROUNDWATER

ND = Non Detect

BGS = Below the Ground Surface

NA = Not Applicable

TEST PIT:

# 2020 NYSDEC REMEDIAL INVESTIGATION

			7	NEW YORK	Department o	f				SOIL BORING	LOG		
1.5			<u>-</u>	OFF-ORTUNATIV	Conservation	•				BORING NO: 1675-MW-	1		
PROJEC <sup>*</sup>	T:	31 T	onawan	da Street (	Off-Site - R	emedial Ir	vestigation			SHEET:	1 of 2		
CLIENT:		NYS	DEC							SITE NO.: C915299A			
DRILLING	G CONTRA	сто	R:	TREC Env	/ironmenta	]				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/15	/20	
-					DIA.		2"			DRILLER:	Eric Ham	man	
					WT.					GEOLOGIST:	Steven N	/loeller	
					FALL				1	REVIEWED BY:		:	
		SA	MPLE				· · · · · · · · · · · · · · · · · · ·		DESCR	IPTION			
DEPTH									MATE	RIAL		PID	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI	PTION	USCS	Soil	
	XXXXXX						8" loamy To	psoil wit		r gravel and slag		00	50
1	XXXXX									. g			
	XXXXX				Brown	1	Clavev soil v	with gra	v slag. V	Vater seeps into hole at	Fill		
2	XXXXX						approximate						
	<b>*************************************</b>		Hand								*		
3	*******		dug	100%				-		· · · · · · · · · · · · · · · · · · ·		0.0	N/A
l	******	-			Brown		Silty Clay, fi	rm. Pos	ssibly rew	vorked.	Fill		
4		-			to								
	*******				Reddish						4.	100	
5	XXXXX			:	Brown								
	XXXXX				Brown	Moist	Silty Clay, p	lastic, tr	ace angu	ılar gravel. Possibly	Fill		
6	⋘⋘						Reworked.	, , ,	3	5			-
<del> </del>	$\otimes\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$		2.0"	-									
7	XXXXX	1	MC	7%								0.0	N/A
	<b>XXXXXX</b>					-							
8													
	XXXXX				Brown	Moist	0.5' same a	s above			Fill		
9					Dark	to				race orange mottles	ML-CH		
-					Gray	Very				. <del>-</del>			
10			2.0"			Moist							
		2	MC	48%								0.0	N/A
11													
12													
- 12					Gray	Moist	2' Silty Clay	very n	lastic wit	h orange mottles	ML-CH		
13					,	to		, , p.	,	orango moutoo			
10						Very							
14		-	2.0"		l.	Moist							
<del>                                     </del>		3	MC	85%	Dark	<b> </b>	Silty Clay n	lastic fi	rmer that	n above, no mottles	ML-CL	0.0	N/A
15			-		Gray			, , ,					
<u>-</u> -													
16													
		-			Dark	Very	1.2 ' same a	as above	e		ML-CL		
17	SKIIKIIK				Gray	Moist		= •	-				
· · · ·		1				<b> </b>				***************************************	<del> </del>	l	
18			2.0"		Reddish	to	1' Silty Clay	to Silty	Clay Fin	e Sand, plastic	CL-SM	1	
<del></del>	1	4	MC	55%	Brown	Wet		-				0.0	N/A
19			1										
<del>                                     </del>	1					·							
20												[	
	***************************************	_	·	<u> </u>	1	1	· · · · · · · · · · · · · · · · · · ·				1	<u> </u>	_
							•	End	d of Borin	g @ 32' bgs			
COMN	MENTS:	Bori	ng perfo	rmed with a	a Geoprobe	6620 DT t	racked direct	t-push ri	ig;	SITE NO.: C915299A			
							in borehole;				46		
				Headspace		t Recorded				BORING NO.:	1675	-IVI V\	<i>I</i> -1
L			<u> </u>										

			<i>y</i>	NEW YORK	Department of	f				SOIL BORIN	G LOG		
			-	-	Conservation	•• 		-		BORING NO: 1675-MW	-1		
PROJECT	T:	31 T	onawan	da Street (	Off-Site - R	emedial Ir	nvestigation			SHEET:	2 of 2		
CLIENT:		NYS	DEC							SITE NO.: C915299A			
DRILLING	CONTRA	СТОІ	R:	TREC Env	/ironmenta	1				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/15	/20	
					DIA.		2"			DRILLER:	Eric Ham	man	
					WT.					GEOLOGIST:	Steven N		.
					FALL					REVIEWED BY:			
		SA	MPLE				1		DESCR				
DEPTH							· · · · · · · · · · · · · · · · · · ·		MATE			PID	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI		USCS	Soil	внѕ
· ·					Gray to	Very	Interlavered	Silty CI		ine Sand & Clayey Silty	ML-SM	00	
21			_ :		Reddish	Moist	Fine Sand, t						
					Brown	to Wet	1						l l
22			2.0"										
		5	MC	58%								6.1	N/A
23													1
0,4						C	4" Cilb. Fin	- Cd	مانسلط مما		MICM		
24					Grayish	Gray Wet	- 4" Silty Fin Same as ab				ML-SM ML-SM		
٥٢					Brown	vvet	Same as an	ove but	inore on	ly Sanu	IVIL-SIVI		
25					]								
00			0.011		i								
26		6	2.0" MC	65%	İ							5.6	N/A
07			IVIC		1						1		
27		-											
	*********				Gray		8" Silty Fine	Sandu	ith Fine (	Gravel	SM-GM		
28						14/-1			nui i iie v	Jiavei			
					Gray	Wet	8" same as	above			SM-GM		
29													
				. :									
30		7	2.0"	83%				***************************************		***************************************		9.9	N/A
			MC		Reddish Brown	Moist	Silty Clay, tr	ace gra	vei		ML-CL		l j
31					DIOWII								l II
		-											
32									· · · · ·				
33													
					1	1							1
34													
1			ļ										
35													
36		<u> </u>			ļ						ļ		$oxed{oxed}$
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37													
		ł				1							1 . 1
38	1												[
39	1											1	
40	L		l	<u> </u>	<u> </u>	<u> </u>	l				1	<u> </u>	L
								End	d of Borin	g @ 32' bgs			
<u> </u>			-										
COMN	MENTS:						racked direc		ıg;	SITE NO.: C915299A			
							d in borehole;			BORING NO.:	1675	-Mv	/-1
		BHS	= Bag I	Headspace	NR = No	t Recorded	t						

				NEW YORK	Department of Environmental Conservation	f il		-		SOIL BORING	) LOG		
				4	Conservation	-				BORING NO: 1675-MW-2	2		
PROJEC.	T:	31 T	onawan	da Street (	Off-Site - R	emedial In	vestigation			SHEET:	1 of 1		
CLIENT:		NYS	DEC							SITE NO.: C915299A			
DRILLING	G CONTRA	СТО	R:	TREC Env	/ironmenta	1				BORING LOCATION:			
GROUND	WATER:		1			CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14/	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/15/	/20	
					DIA.		2"			DRILLER:	Eric Ham		
					WT.					GEOLOGIST:	Steven M		
					FALL					REVIEWED BY:	Oleveni	TOCHE	
		84	MPLE		IALL	<u> </u>		1	DESCR				
DEPTH		37							MATE			DID (	(mmm)
	STRATA	NO.	TYPE	% REC	COLOR	MOIST.					uscs	-	(ppm)
FEET	XXXXX				Crovito		O" conholtic		DESCRI	PTION	F-:11	Soil	BHS
	XXXXXX			-	Gray to Black		8" asphaltic 4' fine to me			1	Fill		1
1	XXXXX												
	XXXXXX				Black		Gravel to sa	and size	d cinders	, trace silt sized material		ĺ	
2	XXXXXI												
	<b>XXXXXX</b>		Hand	100%	Black	Moint	Cond and a	rovol/oir		o riol		N/A	N/A
3	<b>XXXXXX</b>		dug		Diack	Moist to	Sand and g	rave//cir	idery mai	enai			
	XXXXXX					Wet						.	1
4	***************************************											.	
	XXXXXX												
5	XXXXXX												
	XXXXX			·	Black	Moist	Fall in				Fill	1	
6	$\otimes$					to	1					. 1	
	<b>********</b>	1	2.0"	33%		Wet						0.0	N/A
7	XXXXX		MC	3376	[							0.0	IV/A
	XXXXXX												1
8					Dk Gray		2" Silty Clay	/	**********	************************************	ML-CH		
					Dark	Wet	Silty Clay, v	ery plas	tic, no oc	lors	ML-CH		
9					Gray	(tube full							
						of water)							
10			2.0"		4								
		2	MC	18%	-							0.0	N/A
11				1.		İ	ł				1		l
l													
12				,							1		
					Reddish	Moist	Silty Clay, v	ery firm	, slightly	plastic, with trace orange &	ML-CL		
13					Brown		gray mottles			,			
					-	j							
14			2.0"										ľ
		3	MC	85%								0.0	N/A
15	<b>XIIXIIX</b>												
13													
16													
10					Reddish	Moist	Silty Clay	erv firm	. with trac	ce gray mottles	ML-CL		
17					Brown	to	3, 3,	J., 11111	,	g.ayoo	0		
<del>- ''</del>						Wet							
18	<b>MINNIN</b>		2.0"			1	1						
10		4	2.0" MC	100%								0.0	N/A
19			""			]							
19													
20			1										
20	AHHHHHH	<u> </u>	L	L	L	L	<u> </u>			<del> </del>			$\sqsubseteq$
								End	d of Borin	g @ 20' bgs			
COMA	MENTS:	Dor:	a norfo	rmod with	- Coorroba	6620 DT 4	racked direc	t nuch -	ia:	SITE NO.: C915299A			
COMIN	TEN 19:								iy,				
							l in borehole	,		BORING NO.:	1675	-MW	-2
ll		DHO	– Bag F	Headspace	: INIX = INO	t Recorded	ı			1			

				NEW YORK	Department of	of				SOIL BORING	3 LOG		
				7	Environmenta Conservation		· .			BORING NO: SB-1			
PROJEC <sup>*</sup>	T:	31 To	onawan	da Street	Off-Site - R	emedial Ir	nvestigation			SHEET:	1 of 2		
CLIENT:		NYSI	DEC							SITE NO.: C915299A			-
DRILLING	G CONTRA	СТО	R:	TREC Env	vironmenta	J .				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/16/	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/16/	/20	
				,	DIA.		2"			DRILLER:	Eric Ham	ıman	
					WT.				:	GEOLOGIST:	Steven M	loeller	
					FALL					REVIEWED BY:			
		SA	MPLE		<del></del>		<u> </u>		DESCR				
DEPTH				-:					MATE	RIAL		PID (	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI	PTION	USCS	Soil	BHS
	XXXXXXX				Brown	Dry	Angular gra	vel & sla		loamy soil matrix, slight	Fill		
1	<b>*************************************</b>				to	to	burnt odor			,			.
	<b>*************************************</b>				Gray	Slightly						. ]	
2			2.0"			Moist							
	<b>XXXXX</b>	1	MC	45%								1.8	7.8
3	XXXXXX												
	XXXXX												
4	<b>XXXXX</b>												
-	<b>********</b>				Brown	Dry	1' same as a	above.	sliaht bur	nt odor	Fill		-
5	<b>********</b>				to	to		ubo.c, .	Jilgi ic 2 a	int oddi	''''		
- 3	<b>*************************************</b>				Gray	Slightly						·	
6	<b>XXXXX</b>		20"		-	Moist							. [
0	XXXXXX	2	2.0" MC	45%								N/A	0.7
_	XXXXX		IVIO										
7					Dork	Moiet	Cand to one	lar fin	- ~~~	·! a a la a			
	<b>XXXXX</b>				Dark Brown	Moist	Sand to ang	Julai iiin	e gravei s	sizea siag			
8	<b>XXXXX</b>	<b> </b>				Cliabthy	Fall in, sligh	H. burn	t adar		Fill		-
	<b>*************************************</b>				Gray &	Slightly Moist	Fall In, Silgn	tly burn	t odoi		+		
9	<b>XXXXX</b>				Brown	Wiolot							
12	<b>XXXXX</b>		3.31										
10	<b> </b>	3	2.0" MC	18%								0.0	N/A
ii			IVIC										
11						Wet						1.	
						at							
12	<b> </b>				<del> </del>	Bottom	<u> </u>				<del> </del>		
	<b>*******</b>				Gray	Wet	Fall in				Fill		
13	<b>******</b>	l '											1
i	XXXXX												
14	XXXXXX	4	2.0"	15%		ļ					ļ	N/A	N/A
			MC		1		1	-	ne Sand,	very slightly plastic, sticky.	ML-SM		
15	4	!	[				Possibly na	tive.					i l
					1								
16					<u> </u>					· · · · · · · · · · · · · · · · · · ·	ļ	$oxed{oxed}$	
17			1				1						
1	,				ł						]		
18		5	2.0"	0%								N/A	N/A
		ľ	MC	0,0								''''	
19				1			1						1
					1						}		
20													
								Enc	d of Borin	g @ 24' bgs			
COMN	MENTS:						tracked direct	t-push r	ig;	SITE NO.: C915299A			
		BHS	= Bag I	Headspace	: NR = No	t Recorded	<u> </u>			BORING N	$0 \cdot si$	R <sub>-</sub> 1	
ll .										l Bound in	O	J- I	

				NEW YORK	Department of Environmenta Conservation	ſ				SOIL BORIN	G LOG		
		-		4	Conservation					BORING NO: SB-1			
PROJEC	Т:	31 T	onawan	da Street	Off-Site - R	emedial Ir	nvestigation			SHEET:	2 of 2		
CLIENT:		NYS					-			SITE NO.: C915299A			
	G CONTRA	CTO	R:	TREC Env	/ironmenta					BORING LOCATION:	<u> </u>		
GROUNE	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/16	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/16		
 					DIA.		2"			DRILLER:	Eric Ham	<u>_</u>	
			_		WT.		<u>-</u> -			GEOLOGIST:	Steven N	/loeller	
		S A	MPLE	<u> </u>	FALL				DESCR	REVIEWED BY:			
DEPTH		34	WIFLE						MATE		T	DID	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCRI		USCS	Soil	
21					Gray	Wet	Silty Clay Fi				ML-SM		
22		,	2.0"	1000/	Gray	Wet	Fine Sand, t NAPL prese			arse sand & fine gravel, 2'	SM-GM		
23		6	MC	100%	Reddish Brown	Moist	Silty Clay, s	lightly fir	m, plasti	c, sticky	ML-CL	N/A	75.4
24		-											
25									<del></del> -, -	<del></del>			
		!				i							
26												. !	
27													
28			<u> </u>										-
29													
30													
31	<u> </u>												
32		-							·				
33													
34	-												
35													.
36													
37													
38											-		
39				i									
40													
			· · ·							g @ 24' bgs			
COMN	MENTS:						racked direct	t-push ri	g;	SITE NO.: C915299A			
<u></u>		BHS	= Bag I	Headspace	NR = No	t Recorded	<u> </u>			BORING N	lo.: si	B-1	
											· - · · · · ·		

				NEW YORK	Department of	of al				SOIL BORIN	G LOG	i .	
				4	Environmenta Conservation	<u> </u>				BORING NO: 1660-MW	-3R		
PROJECT	Т:	31 To	onawan	da Street	Off-Site - R	emedial Ir	nvestigation			SHEET:	1 of 2		
CLIENT:		NYSI	DEC							SITE NO.: C915299A			
DRILLING	CONTRA	СТОГ	R:	TREC En	vironmenta	ı				BORING LOCATION:			
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20	
DATE	TIME	LE	VEL	TYPE	TYPE	-	Macrocore			DATE FINISHED:	09/14		
					DIA.		2"			DRILLER:	Eric Han		
					WT.					GEOLOGIST:	Steven N		
					FALL			<u> </u>		REVIEWED BY:	Sieveiri	noene	
		CAI	MPLE		FALL			<u> </u>	DECCE				
		SAI	WIPLE				1			RIPTION	<del></del>	- -	, ,
DEPTH	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			MATE		uscs		(ppm)
FEET			_				OH T 11 1		DESCR	IPTION		Soil	BHS
	***************************************				Brown	Dry	6" Topsoil, I						
1	⋘⋘					to Slightly	- orange de				<u> </u>		
	XXXXXX				Brown	Moist			sand &	gravel, some black	Fill		l
2	XXXXX	1	2.0"	73%			material inte	ermixea				0.0	N/A
	XXXXXX		MC	1.5				***********		***************************************			
3	$\times\!\!\times\!\!\times\!\!\times$				Brown		material inte			ay, orange & black	Fill		
	XXXXXX						illiateriai ilite	iiiixea	III IC				
4	***************************************												
	***************************************				Reddish		6" clay inter				Fill		
5	⋘⋘				Brown		2" sandy/gra						
	XXXXX				Reddish	Moist				d gravel. This soil is	Fill?		
6	XXXXX	2	2.0"	78%	Brown		thought to b	e rewor			N/A	N/A	
	XXXXX		MC	1076					IWA	IN/A			
7	***************************************				Ì								l
	Million.				Grayish	Moist	1' Silty Clay	, slighly	more mo	oist than above	ML-CL		
. 8					Reddish Brown								
					Gray	Moist	Silty Clay, fi	rm to sl	ightly pla	stic, trace gravel	ML-CL		
9					to								
					Reddish	ļ							]
10			2.0"		Brown								
		3	MC	73%	ŀ							N/A	N/A
11					1	1							
							Bottom 8" h	as grav	silty fine	sand stringers			
12								3,	J.,	oana oaniigoro			
- '-							Top 1.2' is r	robably	fall in (n	ot described)			
13										,			
- 10				,				******		***********************************			
14			2.0"		Gray	Moist	Silty Clay, n	nore pla	stic, with	orange mottling	ML-CL		
14		4	MC	100%			- some area	s have	more silt	v fine sand		N/A	N/A
15			""		1	ļ	- some area	is nave	inore siit	y iiie sailu			
15					D	}	1 8' same a	e ahove	hut hoc	omes dark gray			
40					Dark	[	1.0 Saille a	s above	but bec	omes dark gray	1	l	
16					Gray Dark	Wet	Silty Clay	ith fina	and ar	d some sandier intermixed	ML-SM	<u> </u>	
4-					Gray	Aver	layers	iui iiile i	aniu, and	a some samuler intermixed	INIT-2IN	[	1
17					to		3,013						
				1	Reddish	l	1					l	1
18		5	2.0"	90%	Gray		N/A N/A						
			MC										1
19			1	İ									1
					Light	Wet	Last 8" Silty	Fine S	and		ML-SM		
20		L	<u> </u>	<u> </u>	Gray	1					017		ļ
							-	Fno	of Borin	ıg @ 28' bgs		_	
									. 0. 50.11				
COMM	IENTS:	Borin	ng perfo	rmed with	a Geoprobe	6620 DT t	racked direc	t-push r	ig;	SITE NO.: C915299A			
		2"φ F	VC mo	nitoring we	ll 1660-MW	-3R installe	ed in borehol	e;		BORING NO.:	1660	N//\A/	20
		BHS	= Bag I	-leadspace	NR = No	t Recorded	t c			BOKING NO.:	1000-	IAI A A	-3K

				•									
				NEWYORK	Department o	of		, · · · ·		SOIL BORIN	<b>G</b> LOG	;	
			_	OPPCRTUNITY	Department of Environmental Conservation	<b>a</b> l				BORING NO: 1660-MW	-3R		
PROJEC	T:	31 T	onawan	da Street	Off-Site - R	emedial Ir	vestigation			SHEET:	2 of 2		
CLIENT:		NYS	DEC							SITE NO.: C915299A			
DRILLING	G CONTRA	СТО	R:	TREC Env	/ironmenta	ı				BORING LOCATION:			
GROUNE	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/14	/20	
					DIA.		2"			DRILLER:	Eric Ham		
					WT.					GEOLOGIST:	Steven N	/loeller	•
		L			FALL	<u> </u>	-			REVIEWED BY:	· · · · · · · · · · · · · · · · · · ·		
		SA	MPLE			<u> </u>			DESCR				
DEPTH	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			MATE		uscs		(ppm)
FEET	-1-1-1-1-1-1-1-1-1-1					10/-4	Tan ainsilas		DESCRI			Soil	внѕ
04				·		Wet	l op similar i	io iast s	ample. F	Possible fall in			.4
21					j .								
22			2.0"									-	
		6	MC	100%								0.8	N/A
23													
					Reddish								
24	*******				Brown		Bottom 4" S	and & C	Gravel, sli	ight petroleum odor	SM-GM		
					Grayish	Wet	Fall in.				SM-GM		
25					Reddish			of Silty	Sand & G	Gravel, slight petroleum			
				-	Brown		odor						
26		7	2.0"	50%								2.4	N/A
			MC		Reddish		Bottom 3" S	ilty Clay	, very fin	m, appears to be varved	ML-CL		
27					Brown								
20				l	4.2								
28		-		<u> </u>							+		
29													
				ļ	į		]						
30												į	
		1											
31		l		<b>j</b>									
							]						
32										-			
33	1	-		1									
		1	1				1					1	-
34	-												
35		1		]									
35	1											1	
36												1	
<u> </u>		<b>†</b>			<u> </u>						<del> </del>		
37						-							
	1	1											
38													
39	4											1	
,,						ļ							
40		<u> </u>	L	L	<u> </u>	1	I				<u> </u>		
								End	d of Borin	g @ 28' bgs			
COMN	MENTS:	Bori	ng perfo	rmed with	a Geoprobe	6620 DT t	racked direc	t-push r	ig;	SITE NO.: C915299A			
331.41							ed in borehol		<u></u>		4000		~=
				Headspace		t Recorded				BORING NO.:	1660-	IVI VV	-3K

				NEW YORK	Department of Environments Conservation	of				SOIL BORING	G LOG	;	
			_	OPPORTUNITY	Conservation	a.				BORING NO: 1660-MW-	5R		
PROJEC <sup>®</sup>	T:	31 To	onawan	da Street	Off-Site - R	emedial In	vestigation			SHEET:	1 of 2		
CLIENT:		NYSI	DEC							SITE NO.: C915299A			
DRILLING	CONTRA	СТОІ	₹:	TREC En	vironmenta	d				BORING LOCATION:			
GROUND			- Tall 1, 1			CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20	
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore			DATE FINISHED:	09/14		
					DIA.		2"			DRILLER:	Eric Han		
					WT.					GEOLOGIST:	Steven I		
			-		FALL			<u> </u>		REVIEWED BY:			
·		SΔ	MPLE		I ALL				DESCR	IPTION			
DEPTH									MATE		<u> </u>	PID	(ppm)
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCR		USCS		BHS
FEET	XXXXX				Brown	N/A	6" Topsoil I	oamy (t		location is where the	ļ	3011	БПЗ
4	XXXXXX				DIOWII	10/7				Should be 1' thick.)			
1	$\times\!\!\times\!\!\times\!\!\times$				Brown	N/A	<b></b>			vel, cinders, coal, brick	Fill		
0	XXXXX		0.0"		BIOWII	1 1 1 1	Silly Clay IIII	CIIIIXC	ı witti gia	vei, ciliders, coai, brick	1 111		
2	XXXXX	1	2.0" MC	83%								N/A	N/A
	$\times\!\!\times\!\!\times\!\!\times$		IVIC				- 6" layer of	black c	oal area	6" from bottom of zone			
3	XXXXX				Grayish								
	XXXXX				Reddish	Moist	- 5" silty cla	y, firm.	Likely re	worked.	1		
4	XXXXXX				Brown	1	011				<u> </u>		
·	XXXXX			.*	Reddish Brown	N/A	6" same as 4" sand, gra				Fill		!
5					DIOWII		4 Sand, gra				ļ		
	XXXXXX				ļ								
6	$\times\!\!\times\!\!\times\!\!\times$	2	2.0"	50%								N/A	N/A
	XXXXX	_	MC	0070							''''	14//	
7	$\times\!\!\times\!\!\times\!\!\times$				Grayish		<u> </u>				<u> </u>		
					Reddish	Moist	Silty Clay, f	rm, trac	e fine gr	avel	ML-CL		
8					Brown						l .		
					Gray	Wet	Silty Clay to	Silty Fi	ne Sand	trace orange mottles,	ML-SM		
9							sticky in silt	y sand a	areas		]		
											j		
10			2.0"									l .	
		3	MC	50%								N/A	N/A
- 11			-	İ	<b>!</b>						1	l	
	ł										ŀ	1	
12					1						1		
12		<del>                                     </del>			<del>                                      </del>		No recover				<del>                                     </del>	<u> </u>	ļ
40		l				İ	INO TECOVER	,					
13	1				ŀ								
		1	٠,										1
14	4	4	2.0"	0%	N/A	N/A					1	N/A	N/A
			MC	]		1							}
15	4										1	1	1
				1	1		-						
16		<u> </u>		ļ	<u> </u>	<u> </u>	Na ···					<u> </u>	
							No recover	y				1	
17		1		1		1					1	1	
		1	1		1	1							
18	]	5	2.0"	0%	N/A	N/A	1					N/A	N/A
		ľ	MC	3,0	'"'	'"'						""	'"'
19		l		1		1	1					1	1
							1						
20						L						L	
			*****					r	d of Dari	ug @ 29' bgg			
								En∈	n or Roul	g @ 28' bgs			
COMN	MENTS:	Borii	ng perfo	rmed with	a Geoprobe	e 6620 DT 1	racked direc	t-push r	ig;	SITE NO.: C915299A			
					<del></del>		ed in boreho			DODUIG :::	4665		
				Headspace		t Recorded		<u> </u>		BORING NO.:	1660-	IVIVV	-5R
		2110	Day	ouuspuot	- 1117 140	. 1 (000146)	<u> </u>						

						<del>-</del>		<del></del>		SOIL BORING	G L OG			
			2ِ	NEW YORK STATE OF OPPORTUNITY	Department o Environmenta Conservation	ef al								
DDO IEC	<del>-</del>	24 T		de Ctroot	<u> </u>		catigation		<u> </u>	BORING NO: 1660-MW-5R SHEET: 2 of 2				
PROJECT CLIENT:	1:	NYS		da Street	Jii-Site - K	emediai ii	nvestigation	· · · · ·	SHEET: 2 of 2  SITE NO.: C915299A					
	G CONTRA			TREC En	vironmenta	.1			· ·	BORING LOCATION:				
	OWATER:	.010.	Χ.	TREC LIN	/II Ommenta	CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/14	/20		
DATE	TIME	I F	VEL	TYPE	TYPE	CASING	Macrocore	CONL	TOBE	DATE STARTED:	09/14/20 09/14/20			
DAIL	IIIAIF		IVEL	117-	DIA.	<del> </del>	2"	$\vdash \vdash \vdash$		DRILLER:	Eric Ham			
									GEOLOGIST:	Steven Moeller				
-					FALL		<del>-</del> -			REVIEWED BY:				
		SA	MPLE				<u></u>		DESCR	and the second s		-		
DEPTH	STRATA			° 250	201.00				MATE	RIAL		PID	(ppm)	
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCR	PTION	USCS	Soil	BHS	
					Dark	Wet	Silty Clay w	th Fine	Sand, ve	ery plastic, soupy	ML-SM	- 1		
21	]			1	Gray									
				1							1			
22		6	2.0"	100%	[ '							1.0	N/A	
			MC											
23					Dork		1 .			Sand, trace rounded				
0.4			!		Dark Gray					ttom of sampler in dark	sм-gм			
24	₩₩₩	$\vdash$			Dark	Wet				ppm on PID.	SM-GM		1	
25					Gray &	, , ,								
			'		Brown							N 1		
26		_	2.0"	1500/			***************************************		***********	***************************************				
		. 7	MC	100%	Reddish		28" Silty Cla	y, very	firm, den	se, varved	ML-CL	148	N/A	
27				1	Brown									
28														
29														
00														
30	4			ĺ										
31											.]			
31	-													
32					<u> </u>									
	<u> </u>		<del>                                     </del>		<del>                                     </del>	·	<del> </del>						<u> </u>	
33											1.	·	ĺ	
	1													
34													ĺ	
	]	l			ļ								1	
35	4										1		1	
20														
36	<u> </u>	├─	<del>                                     </del>	<u></u>	<del>                                     </del>	<del> </del>	<del> </del>				-		1	
37													1	
- 5,	1	1												
38														
	1												1	
39														
	1				1									
40				<u></u>							<u></u>			
								Enc	d of Borin	g @ 28' bgs				
COMN	MENTS:	Pori	porfo	-mod with	- Cooprobe	6620 DT	tracked direct	t puch r	:~.	SITE NO.: C915299A				
COMM	MENIS.								ıg,					
	2"\phi PVC monitoring well 1660-MW-5R installed in borehole;  BHS = Bag Headspace NR = Not Recorded  BHS = Bag Headspace NR = Not Recorded													

		-		NEW YORK	Department of Environment	of				SOIL BORIN	G LOG	;		
				7	Conservation	**			BORING NO: 1660-MW-8					
PROJEC	T:	31 To	onawan	da Street	Off-Site - R	emedial Ir	rvestigation			SHEET: 1 of 2				
CLIENT:		NYSI	DEC							SITE NO.: C915299A				
DRILLING	CONTRA	СТО	₹:	TREC En	vironmenta	l				BORING LOCATION:				
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	<b>DATE STARTED:</b> 09/16/20				
DATE	TIME	LE	VEL	TYPE	TYPE		Macrocore DATE FINISHED: 09/16/20					/20		
					DIA.		2"			DRILLER:	Eric Han	nman		
					WT.				1	GEOLOGIST:	Steven N	/loelle	r	
					FALL					REVIEWED BY:				
<del></del>		SAI	MPLE	<u> </u>		<u> </u>	<u> </u>	<u> </u>	DESCR	RIPTION				
DEPTH									MATE	RIAL		PID	(ppm)	
FEET	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			DESCR	IPTION	USCS		BHS	
1					Gray	Dry to	Sand and g matrix	ravel siz		little brown loamy soil	Fill	30.11	2	
2		1	2.0"	50%		Slightly Moist						0.0	N/A	
3			MC	50 %								0.0	IN/A	
4					Rusty Brown		- 3" soil & sl							
5			: .		Brown	Dry to Slightly	2.3' same a	s above	) ————————————————————————————————————		Fill			
6	*****	2	2.0" MC	68%		Moist						1.1	N/A	
7			IVIC		Black	Moist	- 0.4' angular sand & gravel sized slag in gray silty							
8					Black	to Wet	clayey sand		α grave	sized slag in gray silty	Fill	-		
9		-			& Gray	<i>D.</i> ,	1.0 14.1111							
10		3	2.0" MC	65%								0.0	N/A	
11					Black	Moist	1' Sand & G	Gravel in	ı a Silty C	Clay matrix. Possibly	Fill			
12							1.3' Fall in				Fill			
13			2.0"											
14 15		4	MC	33%	N/A	N/A						N/A	N/A	
16														
17	<b>                                     </b>		-			Wet	0.8' Fall in	***************************************			Fill			
18		5	2.0" MC	100%	Dark Gray	Moist				ontent at 18.4'. Depth to y fall in in the previous	ML-SM	0.0	N/A	
19 20					Brown	Moist	- 1.5' same			ecomes browner and				
	percentalisticisticisticisticisticisticisticisti	L	I				1	<del></del>		ng @ 36' bgs			<u> </u>	
COMN	MENTS:	Borir	ng perfo	rmed with	a Geoprobe	6620 DT 1	racked direc	t-push r	ig;	SITE NO.: C915299A				
J 0 1 1 A 1							in borehole		<u>J,</u>					
				Headspace		t Recorded				BORING NO.	: 1660	-MV	<b>8-V</b>	

				NEW YORK	Department of	of				SOIL BORING	G LOG	;				
				OPPORTUNITY	Conservation	al .				BORING NO: 1660-MW-	В					
PROJECT	Т:	31 To	onawan	da Street	Off-Site - R	emedial Ir	nvestigation			SHEET:	2 of 2					
CLIENT:		NYSI	DEC							SITE NO.: C915299A						
DRILLING	CONTRA	СТОГ	R:	TREC Env	vironmenta	ı				BORING LOCATION:						
GROUND	WATER:					CASING	SAMPLER	CORE	TUBE	DATE STARTED:	09/16/20					
DATE	TIME	LE	VEL	TYPE	TYPE Macrocore DATE FINISHED:							09/16/20				
					DIA.	DIA. 2" DRILLER:							Eric Hamman			
	WT GEOLOGIST:									GEOLOGIST:	Steven Moeller					
					FALL		<u> </u>			REVIEWED BY:						
		SAI	MPLE													
DEPTH	STRATA	NO.	TYPE	% REC	COLOR	MOIST.			MATE	RIAL	uscs	PID	(ppm)			
FEET	15151515151								DESCR			Soil	BHS			
21					Dark Gray	Wet	Silty Fine Sa	and and	Gravel,	trace clay	SM-GM					
							1					1				
22		6	2.0"	15%							<u> </u>	N/A	304.5			
23			MC		Gray	* · · · · · · · · · · · · · · · · · · ·		Silty Clayey Sand and Gravel with visible reddish brow NAPL and a coal tar odor			SM-GM					
24																
25			1		Gray	Wet	in the macro	ocore sa		nly sample recovered was b. 1.2' of liner tube was	SM-GM					
26			2.0"				NAPL staine	ed.								
		7	MC	5%								N/A	390.4			
27																
28	<u> </u>								:							
29					Gray	Wet	woody piece	e, friable	e to slight	rith Gastropod shells, and a tly plastic, slightly sticky at tain due to poor recovery in	ML-SM					
30		8	2.0"	100%			previous sa		act under	taill due to pool recovery in		72.4	692.7			
31		0	MC	100%			- 1" thick sa	ndy stri	nger at 3	1.8' with NAPL		12.4	092.7			
					Reddish	j .	ļ ·	-								
32	mmm				Brown	Moist	0.2' Silty Cl	ay	***************************************		ML-CL	1				
33					Gray	Wet	6" Silty San	d heavi	liy impac	ted with NAPL	ML-SM					
	1															
34		9	2.0" MC	13%								N/A	N/A			
35																
36						<u> </u>		-								
37	1															
38	1															
39	1															
40																
End of Boring @ 36' bgs																
COMN	MENTS:						tracked direc		ig;	SITE NO.: C915299A						
							d in borehole	;		BORING NO .	1660	-MV	<b>/</b> -8			
BHS = Bag Headspace NR = Not Recorded BORING NO.: 1660-MW-8																

### FORMER BUFFALO GAS LIGHT/ IROQUOIS GAS CORPORATION SITE NO. 915351

# 2022 GEI CONSULTANTS, INC. SITE CHARACTERIZATION REPORT

Boring Location **BORING EASTING**: 1,063,933 **NORTHING**: 1,067,341 STATION: N/A OFFSET: N/A MW-BGL-1 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **VERTICAL DATUM: NAVD88 GROUND SURFACE ELEVATION (FT):** PAGE 1 of 2 **LOCATION: P-Site Drilling Information DATE START / END:** 11/11/2021 - 11/11/2021 TOTAL DEPTH (FT): 28.0 DRILLER: LOGGED BY: M. Cummings CONTRACTOR: Nothnagle Tom Mangefreda EQUIPMENT: Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 581.74' U = Undistrubed Tube Sample ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot WOR = Weight of Rods Q<sub>P</sub> = Pocket Penetrometer Strength mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength V = Field Vane Shear SC = Sonic Core Pen. = Penetration Length S = Split Spoon RQD = Rock Quality Designation = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured Rec. = Recovery Length DP = Direct Push Sample OVM = Organic Vapor Meter Casing SAMPLE INFORMATION WELL CONSTRUCTION Sample Field Flev Blow GRAPHIC Depth Pen./ Description & **DETAILS** Test Sample Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) or Rate (in) RQD (mpf) Flush mount surface casing 580 Hand clear to 5.0' bgs. FILL Reddish-brown silty clay with trace fine sand and fine angular gravel. Moist throughout (reworked native material) 48/30 1 0.0=MVO to 2" dia. 5 8 schedule 40 PVC well riser 575 Cement/ 2 8 48/48 bentonite OVM=0.1 to Lacustrine Clay Reddish-brown silty clay with arout 12 trace fine sand and fine angular gravel, stiff, low plasticity fines, moist throughout. 10 3/8" dia. 570 3 12 48/48 Lacustrine Clay, as above, moist. bentonite OVM=0.0 to chips 16 15 4 48/48 16 OVM=0.0 to 20 565 2" dia. schedule 40 PVC well screen 20 5 48/48 Lacustrine Clay, as above, moist. 20 #00N Filter 0.0=MVO to Sand 24 560 Strata lines represent the approximate boundaries between soil types. Actual transitions GEI Consultants, Inc. **CLIENT:** National Fuel Gas PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway may be gradual. Water level readings have been made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. Consultants Buffalo, NY 14228 GEI PROJECT NUMBER: 2101620

4/15/22

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NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

2101620

GEOTECHNICAL BORING LOG 02

	g Loc											BORING
HORIZ	ZONTA	L DAT			083 NY	NG: 1 West Zo		ATION CENT	ΓERL			MW-BGL-1
	TION:		I: NAV	<u>D0</u>	<u>o</u>		GR	OUND SUKI	FACE	<b>E ELEVATION (FT):</b> <u>582.17</u>		PAGE 2 of 2
		Casing Pen.			SAMPL	E INFO	RMATIO	N	00			WELL
Elev. (ft)	Depth (ft)	(bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field Test Data	GRAPHIC LOG	Sample Description & Classification		CONSTRUCTION DETAILS
- - 555 —	25 _ _		6		24 to 28	48/48		OVM=0.0				- 2' sump
-	- - 30									End of Boring at 28 feet		
_										Samples to Alpha Analytical:		
550 —	<del>-</del>									16-20' below ground surface (566.17-562.17' elev.)		
-	- - 35											
- 545 —	_											
-	_											
-	<b>- 40</b>											
540 —	- -											
-	_ 45											
535 —	  -  -											
-	_											
-	— 50 –											
530 —	-  - 											
Strata lii	nes repres	ent the	approximat	te	Ι.		N. C	1510		<u> </u>		CEL Conquitants Inc
boundar may be	ies betwe gradual. V	en soil ty ∕ater lev	pes. Actua el readings	al tra s hav	ve been			al Fuel Gas  National F	ا امرا-	Lower Scajaquada Creek		GEI Consultants, Inc. 100 Sylvan Parkway
maue a	times stat at other ti	cu. vvai	er levels m	ıay b	ຶ  ເ	CITY/ST/	<b>ΑΤΕ:</b> <u>Β</u> ι	uffalo, New \	York			Suite 400
					ر ا	CEL DEC	IECT NI	IMPED: 24	1046		100	Ruffalo NV 14228

GLASTONBURY - GEOTECHNICAL BORING LOG 02 2101620\_NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE\_EW.GPJ NEW.GDT 4/15/22



Boring Location **BORING EASTING**: 1,063,786 **NORTHING**: 1,067,421 STATION: N/A OFFSET: N/A HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A MW-BGL-3 GROUND SURFACE ELEVATION (FT): **VERTICAL DATUM: NAVD88** 576 88 PAGE 1 of 2 LOCATION: P-Site **Drilling Information DATE START / END:** 11/9/2021 - 11/9/2021 TOTAL DEPTH (FT): 28.0 CONTRACTOR: Nothnagle LOGGED BY: M. Cummings DRILLER: Tom Mangefreda **EQUIPMENT:** Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 579.82 ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undistrubed Tube Sample WOR = Weight of Rods Q<sub>P</sub> = Pocket Penetrometer Strength OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation = Field Vane Shear Strength SC = Sonic Core NA, NM = Not Applicable, Not Measured Rec. = Recovery Length DP = Direct Push Sample OVM = Organic Vapor Meter SAMPLE INFORMATION Casing WELL CONSTRUCTION Sample Field Flev Depth Blow GRAPHIC Pen./ Description & **DETAILS** Test Sample 8 Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) or Rate (in) RQD (mpf) Flush mount surface 575 casing Hand clear to 5.0' bgs. 2" dia. schedule FILL Reddish-brown silty clay with coarse 40 PVC angular limestone gravel, weathered concrete well riser pieces, moist. Locally mottled with black silty 48/48 1 OVM=0.5 clay, firm to hard. to 5 Cement/ 8 bentonite grout 570 3/8" dia. 2 8 48/48 OVM=0.1 bentonite to chips 12 10 565 3 12 48/0 OVM= to 16 2" dia. No recovery 12-16' interval. schedule 40 PVC 15 well screen 4 48/21 Loose angular fine gravel with little fine sand, 16 OVM=20 light to moderate diesel-like odor, light sheen, to 560 #00N Filter 20 saturated. Sand Lacustrine Clay Reddish-brown silty clay with trace fine sand and fine angular gravel, stiff, low 20 2' sump plasticity fines, moist throughout. 5 48/48 20 3/8" dia. 0.0=MVO to bentonite 24 chips 555 Strata lines represent the approximate GEI Consultants, Inc. **CLIENT:** National Fuel Gas boundaries between soil types. Actual transitions may be gradual. Water level readings have been PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. Consultants Buffalo, NY 14228 **GEI PROJECT NUMBER: 2101620** 

4/15/22

EW.GPJ NEW.GDT

GEOTECHNICAL BORING LOG 02 2101620 NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

	1													
	g Loc		_								BORING			
HORIZ		L DAT	'UM: N		983 NY			ATION CENT	ERL		MW-BGL-3			
	ICAL D		l: <u>NAV</u>	D8	8		GR	OUND SURF	ACE	ELEVATION (FT):576.88	PAGE 2 of 2			
		Casing			SAMPL	E INFO	RMATIO	N	ဗ္ဗ	· · · · · · · · · · · · · · · · · · ·	WELL			
Elev. (ft)	Depth (ft)	Pen. (bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field Test Data	GRAPHIC LOG	Sample Description & Classification	CONSTRUCTION DETAILS			
- 550 —	— 25 - -		6	$\setminus$	24 to 28	48/48		OVM=0.0			-3/8" dia. bentonite chips			
-	_ 30									End of Boring at 28 feet				
545 — -	<del>-</del>									Samples to Alpha Analytical:  17-19' below ground surface (559.88' to 561.88' elev.)				
-	_ 35									Samples for forensics (Meta Env.)  18-19' below ground surface (560.88' to 559.88' elev.)				
540 — -	  -  -													
535 —	— 40 - -													
530 —	- 45 - -													
- - 525 — -	- 50 													
may be made at	ies betwee gradual. W	en soil ty /ater lev ed. Wat	approximat pes. Actua el readings er levels m	l tra ha	ve been F	PROJEC	T NAME	al Fuel Gas : National F uffalo, New Y		ower Scajaquada Creek	GEI Consultants, Inc. 100 Sylvan Parkway Suite 400			

GEI PROJECT NUMBER: 2101620

GLASTONBURY - GEOTECHNICAL BORING LOG 02 2101620\_NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE\_EW.GPJ NEW.GDT 4/15/22





Boring Location **BORING NORTHING**: 1,067,490 **EASTING:** 1,064,648 STATION: N/A OFFSET: N/A MW-LSC-1 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **GROUND SURFACE ELEVATION (FT): VERTICAL DATUM:** NAVD88 PAGE 1 of 2 LOCATION: Lower Scajaquada Creek Area **Drilling Information DATE START / END:** 11/1/2021 - 11/1/2021 TOTAL DEPTH (FT): 24.0 CONTRACTOR: Nothnagle DRILLER: LOGGED BY: E. Wood Tom Mangefreda **EQUIPMENT:** Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 585.69 ABBREVIATIONS: WOR = Weight of Rods ID = Inside Diameter bpf = Blows per Foot U = Undistrubed Tube Sample Q<sub>P</sub> = Pocket Penetrometer Strength OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength F<sub>v</sub> = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter SAMPLE INFORMATION Casing **WELL** CONSTRUCTION Sample Field Flev Depth Blow GRAPHIC Pen./ Description & **DETAILS** Test Sample 8 Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) Rate (in) ROD (mpf) 0 60/ OVM=0.4 Topsoil Flush to FILL Brown/dark brown, fine grained to 585 mount medium grained sand, trace organics, 1'x1' surface sandstone blocks from 3' to 5', dry casing OVM=0.2 2" dia. schedule OVM=0.0 40 PVC 5 Brown silty sand, fine grained to medium grained, well riser 2 36/19 well rounded, well sorted, moist to 580 Medium gravel, slag, red brick fragments, some black gravel (wet, no odors) 0.0=MVO Reddish brown silty clay, trace small gravel, dry 4" seam of black, coarse-grained poorly-sorted, Cement/ 48/39 3 8 angular sand and fine gravel OVM=0.1 bentonite to 12 arout Transitions to reddish-brown silty clay, trace fine gravel Black coarse grained, poorly sorted, angular, 10 sand and fine gravel OVM=0.2 Reddish brown silty clay, trace small gravel, dry. 575 3/8" dia. bentonite Black fine grained to coarse grained sand with chips fine gravel, some cinders and possible coal, trace 4 48/24 12 OVM=0.2 Red brick fragments, saturated, some medium to gravel, angular 16 OVM=0.1 15 2" dia. schedule 570 40 PVC 5 48/41.5 16 well OVM=0.3 screen to 20 Native Alluvium Gray silty clay, little fine grained sand, trace wood/organic material, saturated (4"), increasing fine grained sand at 18' Gray silty clay, organic material (roots, wood, #00N Filter Sand plant material) noted, saturated Strata lines represent the approximate GEI Consultants, Inc. **CLIENT:** National Fuel Gas boundaries between soil types. Actual transitions may be gradual. Water level readings have been PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. **GEI PROJECT NUMBER: 2101620** Consultants Buffalo, NY 14228

4/15/22

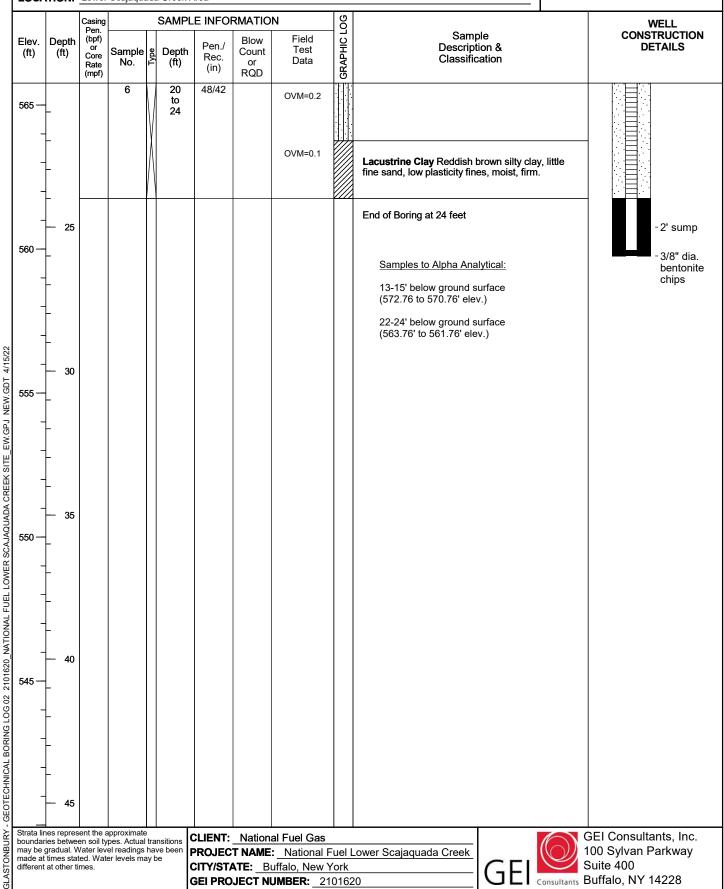
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2101620 NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

**GEOTECHNICAL BORING LOG 02** 

**BORING Boring Location NORTHING**: 1,067,490 **EASTING**: 1,064,648 STATION: N/A OFFSET: N/A HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A MW-LSC-1 VERTICAL DATUM: NAVD88 **GROUND SURFACE ELEVATION (FT):** PAGE 2 of 2 LOCATION: Lower Scajaquada Creek Area



Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.

**CLIENT:** National Fuel Gas

PROJECT NAME: National Fuel Lower Scajaquada Creek

CITY/STATE: Buffalo, New York GEI PROJECT NUMBER: 2101620



GEI Consultants, Inc. 100 Sylvan Parkway Suite 400 Consultants Buffalo, NY 14228

Boring Location **BORING NORTHING:** 1,067,487 **EASTING**: 1,064,471 STATION: N/A OFFSET: N/A MW-LSC-2 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **GROUND SURFACE ELEVATION (FT): VERTICAL DATUM:** NAVD88 PAGE 1 of 2 LOCATION: Lower Scajaquada Creek Area **Drilling Information DATE START / END:** 11/1/2021 - 11/1/2021 TOTAL DEPTH (FT): 40.0 CONTRACTOR: Nothnagle DRILLER: LOGGED BY: E. Wood Tom Mangefreda EQUIPMENT: Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 585.35 ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undistrubed Tube Sample WOR = Weight of Rods Q<sub>P</sub> = Pocket Penetrometer Strength mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength F<sub>v</sub> = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation SC = Sonic Core Rec. = Recovery Length DP = Direct Push Sample OVM = Organic Vapor Meter SAMPLE INFORMATION Casing **WELL** CONSTRUCTION Sample Field Flev Blow GRAPHIC Depth Pen./ Description & **DETAILS** Sample 8 Test Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) Rate (in) RQD (mpf) 0 60/ Topsoil stickup to protective FILL Organics, root material, dry, trace silty clay casing Gray/red brown silty clay, dry 580 Gray silt, little clay, trace fine grained gravel, well sorted, trace angular gravel, slug at 4' 5 2" dia. 5 36/31 Reworked native reddish brown silty clay, angular 1 schedule to fine gravel, firm, moist 40 PVC 8 well riser OVM=0.1 575 2 8 48/48 FILL as above, red brown reworked native to OVM=0.0 to 9.5' then loose brown silty sand, bricks, angular, 12 fine grained gravel, cinders, slag 10 Cement/ bentonite grout 3 12 48/35 Loose cindery fill, saturated, top of clay at ~15' 570 OVM=0.3 bgs, black, slight septic-like odor, no sheen or to 16 other odors OVM=0.3 15 4 48/30 16 OVM=0.5 to Native Alluvium firm to hard, medium plasticity, 20 light gray grading to gray brown at 20' bgs 565 OVM=1.5 3/8" dia. bentonite 20 chips 5 48/45 20 Moist, firm, gray-brown OVM=0.2 to 24 #00N Filter 560 OVM=0.2 Sand Sandy silt with little low plasticity fines, firm, wood pieces, shells Strata lines represent the approximate boundaries between soil types. Actual transitions GEI Consultants, Inc. **CLIENT:** National Fuel Gas PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway may be gradual. Water level readings have been made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. Consultants Buffalo, NY 14228 **GEI PROJECT NUMBER: 2101620** 

4/15/22

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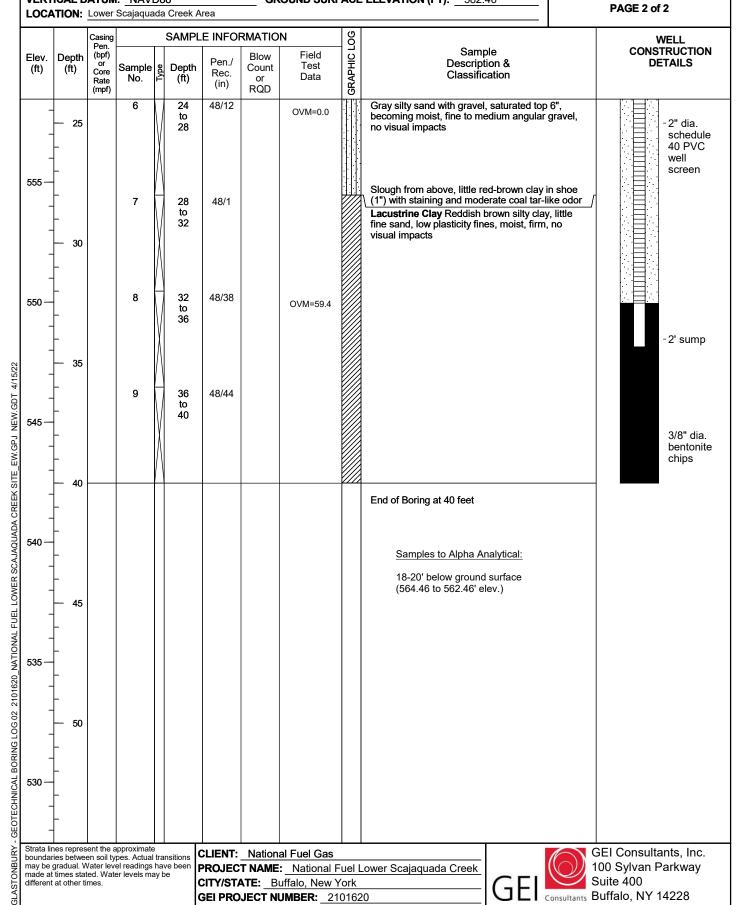
2101620 NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

GEOTECHNICAL BORING LOG 02

Boring Location
NORTHING: 1,067,487 EASTING: 1,064,471 STATION: N/A OFFSET: N/A
HORIZONTAL DATUM: NAD83 NY West Zone VERTICAL DATUM: NAVD88 GROUND SURFACE ELEVATION (FT): 582.46

BORING

MW-LSC-2



Boring Location **BORING NORTHING:** 1,067,270 **EASTING:** 1,064,263 STATION: N/A OFFSET: N/A MW-LSC-3 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **GROUND SURFACE ELEVATION (FT): VERTICAL DATUM:** NAVD88 PAGE 1 of 2 LOCATION: Lower Scajaquada Creek Area **Drilling Information** TOTAL DEPTH (FT): 32.0 **DATE START / END:** 11/1/2021 - 11/8/2021 CONTRACTOR: Nothnagle DRILLER: LOGGED BY: E. Wood Tom Mangefreda EQUIPMENT: Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 586.95' ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undistrubed Tube Sample WOR = Weight of Rods Q<sub>P</sub> = Pocket Penetrometer Strength OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength F<sub>v</sub> = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter SAMPLE INFORMATION Casing **WELL** CONSTRUCTION Sample Field Flev Depth Blow GRAPHIC Pen./ Description & **DETAILS** Test Sample 8 Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) (in) ROD -stickup (mpf) protective 0 48/ casing to FILL Brown/gray silty clay, trace fine grained sand, little concrete, moist 2" dia. schedule 40 PVC well riser 580 2 48/26 FILL as above, brown silty clay with fine OVM=0.2 grained to coarse grained sand, angular to 5 Cement/ limestone at 1.5', some coal in upper 1' of core, 8 bentonite trace root material, dry grout OVM=1.7 3/8" dia. bentonite chips 3 8 48/44 Fill: Same as above, locally saturated (4'), OVM=2 0 to increasing brown silty clay dry, transitioning to 12 dark brown, gray, and black, trace fine grained to medium grained sand in lower 1', little to small 10 medium subrounded gravel, slight possible solvent odor in lower 1 OVM=88.4 2" dia. 12 48/38 Dark gray to black silty clay with medium gravel 4 schedule OVM=16.2 and gray slug, locally saturated, transitions to to 40 PVC brown silty clay (reworked) with trace medium 16 well rounded gravel, very slight possible solvent odor screen (1) 12-14', moist 570 OVM=3.1 15 5 48/48 Reddish brown silty clay, trace fine to medium 16 OVM=1.1 to sand, dry 20 OVM=19.1 565 20 Native Alluvium Black silty fine grained sand, 6 48/42 20 OVM=0.1 locally saturated, septic odor, with clay, saturated to 24 Trace wood material and shell fragments in lower #00N Filter OVM=1.1 Sand Strata lines represent the approximate GEI Consultants, Inc. **CLIENT:** National Fuel Gas boundaries between soil types. Actual transitions PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway may be gradual. Water level readings have been made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. **GEI PROJECT NUMBER: 2101620** Consultants Buffalo, NY 14228

EW.GPJ NEW.GDT

2101620 NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

GEOTECHNICAL BORING LOG 02

**Boring Location** 

STATION: N/A **NORTHING:** 1,067,270 **EASTING:** 1,064,263 OFFSET: N/A

HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A

MW-LSC-3

**BORING** 

		Casing		9	SAMPL	E INFO	RMATIO	N	၂ ပ		\A/E1.1
≣lev. (ft)	Depti (ft)	Pen.		T	Depth (ft)	Pen./ Rec. (in)	Blow Count or RQD	Field Test Data	GRAPHIC LOG	Sample Description & Classification	WELL CONSTRUCTION DETAILS
660 <del>-</del>	— 25 -	5	7		24 to 28	48/47		OVM=0.3		Lacustrine Clay Reddish brown silty clay, trace fine sand, (locally high plasticity), moist	
- - 555 —	-		8	\\ \	28 to 32	48/		OVM=0.6 OVM=0.4		Same as above, little fine to coarse angular sand, trace angular small gravel, saturated	
-	- 30 - -							OVM=0.5			- 3/8" dia. bentonite chips
_	_									End of Boring at 32 feet	
550 — - -	- 35 -	5								Samples to Alpha Analytical: 11-12' below ground surface	(1) Longer well screer selected to monitor groundwater in fill with solvent odor and material above clay.
-										(573.19 to 571.19' elev.)  22-24' below ground surface (562.19 to 560.19' elev.)	
545 — - -	- 4( -	)								(302.19 to 300.19 elev.)	
- - 540 —	-										
-	- 45 - -	5									
- 535 — -	- - 50	)									
-	<u>-</u>										
530 —	-										

different at other times.

CITY/STATE: Buffalo, New York GEI PROJECT NUMBER: 2101620





Suite 400 GEI Consultants Buffalo, NY 14228

Boring Location **BORING NORTHING:** 1,067,415 **EASTING:** 1,064,262 STATION: N/A OFFSET: N/A MW-LSC-4 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **GROUND SURFACE ELEVATION (FT): VERTICAL DATUM:** NAVD88 PAGE 1 of 2 LOCATION: Lower Scajaquada Creek Area **Drilling Information** TOTAL DEPTH (FT): 32.0 **DATE START / END:** 11/8/2021 - 11/8/2021 CONTRACTOR: Nothnagle DRILLER: LOGGED BY: M. Cummings Tom Mangefreda EQUIPMENT: Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 582.13' ID = Inside Diameter WOR = Weight of Rods ABBREVIATIONS: bpf = Blows per Foot U = Undistrubed Tube Sample Q<sub>P</sub> = Pocket Penetrometer Strength OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation = Field Vane Shear Strength SC = Sonic Core NA, NM = Not Applicable, Not Measured Rec. = Recovery Length DP = Direct Push Sample OVM = Organic Vapor Meter Casing SAMPLE INFORMATION **WELL** CONSTRUCTION Sample Field Flev Depth Blow GRAPHIC Pen./ Description & **DETAILS** Sample 8 Test Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) or Rate (in) ROD (mpf) 0 48/ Topsoil Flush to mount 4 surface FILL Brown silt, sand, fine grained to medium casing grained, well rounded, rounded, gravel fine to 580 coarse, subrounded to angular, cobbles 4/15/22 2 48/32 OVM=0.0 to 5 2" dia. 8 Black silty sand, fine grained to coarse grained, EW.GPJ NEW.GDT schedule dry, organics, medium gravel, slag and black 40 PVC coal, root material well riser 0.0=MVO 575 3 8 48/6 Brown silty clay fill, fabric or fiber materials at NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE to 4.25', brick fragments, trace small angular gravel 12 and cinders, dry Very low recovery, some material as above (4-8'), 10 Cement/ some black to gray silty clay with fine grained sand at end 1", moist bentonite grout 12 48/44 4 570 OVM=0.1 to Native Alluvium Dark gray to black silty clay, 16 moist Dark gray to black, some olive color OVM=0.1 15 Clayey silt, trace fine grained sand, saturated at 14.5' 3/8" dia. Same as above, dark gray to black clayey silt, 5 48/34 16 OVM=0.1 bentonite trace fine grained sand to chips 2101620 20 565 Silty fine gravel, sand with gastropod shells, OVM=0.1 GEOTECHNICAL BORING LOG 02 2" dia. schedule 40 PVC 20 6 48/44 20 Silty fine to coarse grained sand, some wood well OVM=0.2 to material upper 6", gastropod shells throughout, screen 24 saturated #00N Filter Root organics at 22' 560 OVM=0.4 Sand Strata lines represent the approximate boundaries between soil types. Actual transitions GLASTONBURY GEI Consultants, Inc. **CLIENT:** National Fuel Gas 100 Sylvan Parkway may be gradual. Water level readings have been PROJECT NAME: National Fuel Lower Scajaquada Creek made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. Consultants Buffalo, NY 14228 **GEI PROJECT NUMBER: 2101620** 

**Boring Location** 

**EASTING**: 1,064,262 **NORTHING:** 1,067,415 STATION: N/A OFFSET: N/A

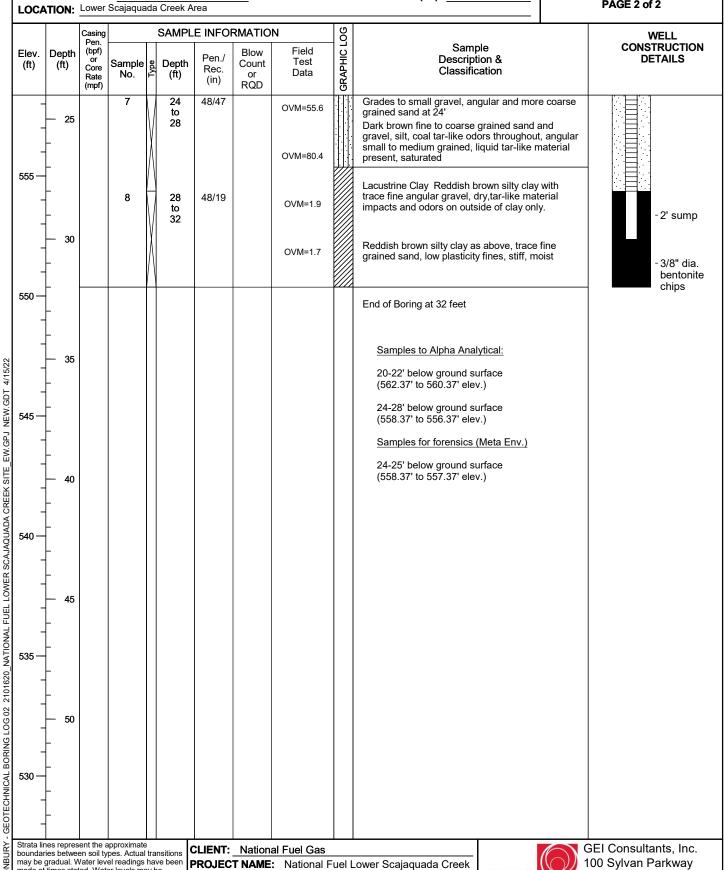
HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A

**GROUND SURFACE ELEVATION (FT):** VERTICAL DATUM: NAVD88

**BORING** 

MW-LSC-4

PAGE 2 of 2



Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be GLASTONBURY different at other times.

CITY/STATE: Buffalo, New York GEI PROJECT NUMBER: 2101620





100 Sylvan Parkway Suite 400 Consultants Buffalo, NY 14228

Boring Location **BORING NORTHING**: 1,067,445 **EASTING:** 1,064,113 STATION: N/A OFFSET: N/A MW-LSC-5 HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A **VERTICAL DATUM: NAVD88 GROUND SURFACE ELEVATION (FT):** PAGE 1 of 2 LOCATION: Lower Scajaquada Creek Area **Drilling Information DATE START / END:** 1/4/2022 - 1/4/2022 TOTAL DEPTH (FT): 42.0 CONTRACTOR: Nothnagle DRILLER: LOGGED BY: M. Cummings Tom Mangefreda **EQUIPMENT:** Hand/Geoprobe 7822DT BORING METHOD: Hand/Geoprobe AUGER ID/OD: 4.25 in / N/A CASING ID/OD: 2 in / 2 in HAMMER TYPE: Direct Push HAMMER WEIGHT (lbs): HAMMER DROP (inch): N/A WATER LEVEL ELEVATIONS (ft): GENERAL NOTES: Top of Riser Elevation: 582.46 ABBREVIATIONS: ID = Inside Diameter bpf = Blows per Foot U = Undistrubed Tube Sample WOR = Weight of Rods Q<sub>P</sub> = Pocket Penetrometer Strength mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S<sub>v</sub> = Pocket Torvane Shear Strength Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter SAMPLE INFORMATION Casing **WELL** CONSTRUCTION Sample Field Flev Depth Blow GRAPHIC Pen./ Description & **DETAILS** Test Sample 8 Depth Count (ft) (ft) Core Rec. Classification Data No. (ft) or Rate (in) ROD (mpf) HHamobloobeaurt to 11 'blogss, bloriobless, gapeaveel, occorroc estee. Flush Advance augers to 5.0' without sampling. mount surface casing 580 5 2" dia. 5 36/3 FILL Loose angular crushed limestone gravel, 1 schedule to moist 40 PVC 8 well riser 575 Steady grinding at 8.5' bgs (likely concrete basement flooring) grind through 6" then advance HSA to 10 bgs without sampling. 10 2 10 48/13 0.0=MVO to Native Alluvium Gray to light gray silty fine 14 sand, little black wood pieces, firm, moist throughout Cement/ 570 bentonite grout 3 48/37 Gray fine sand and silt with little low plasticity 14 OVM=0.0 to fines, moist throughout, rootlets bottom 6", firm 15 18 565 4 18 48/42 Gray to dark gray clayey silt with trace fine sand, OVM=0.0 shell fragments (white) at 21' with few shells, to 22 scattered throughout, little peat and cobbles 3/8" dia. 20 Gray silty fine sand, saturated, soft, slight bentonite petroleum odor chips 5 22 48/48 OVM=2.7 to 560 26 Strata lines represent the approximate boundaries between soil types. Actual transitions GEI Consultants, Inc. **CLIENT:** National Fuel Gas PROJECT NAME: National Fuel Lower Scajaquada Creek 100 Sylvan Parkway may be gradual. Water level readings have been made at times stated. Water levels may be Suite 400 CITY/STATE: Buffalo, New York different at other times. **GEI PROJECT NUMBER: 2101620** Consultants Buffalo, NY 14228

4/15/22

EW.GPJ NEW.GDT

2101620 NATIONAL FUEL LOWER SCAJAQUADA CREEK SITE

GEOTECHNICAL BORING LOG 02

**Boring Location** OFFSET: N/A

**NORTHING:** <u>1,067,445</u> **EASTING:** <u>1,064,113</u> **STATION:** <u>N/A</u> HORIZONTAL DATUM: NAD83 NY West Zone STATION CENTERLINE: N/A

VERTICAL DATUM: NAVD88 **GROUND SURFACE ELEVATION (FT):** <u>582.72</u> BORING

MW-LSC-5

			Scajaquad			ea	GR	OUND SUKI	ACL	ELEVATION (F1):582.72	PAGE 2 of 2
Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	Sample No.			Pen./ Rec. (in)	Blow Count or RQD	Field Test Data	GRAPHIC LOG	Sample Description & Classification	WELL CONSTRUCTION DETAILS
555 —	25  		6		26 to 30	48/32		OVM=2.7		As above, saturated, then 6", wood fragments from 28.5-30', coarse fine sand, silt, slight coal-tar like odor, gray clay in shoe with tar-like material staining, firm, 1' red clay in very bottom of shoe	- 2" dia. schedule 40 PVC well screen -#00N Filter Sand
550 —	30		7	$\bigvee$	30 to 34	48/24		OVM=0.4		Silty red clay with trace fine angular gravel, firm, medium to high plasticity, slight coal-tar like odor in top 1.5'	
-	35		8	$\bigvee$	34 to 38	48/48		OVM=0.0		As above, little coal tar present on shoe only, likely resulting from withdrawing sampling assembly through impacted interval above, little red clay in sampler	- 2' sump
545 —	- - - - - - -		9		38 to 42	48/2		OVM=0.0		Poor recovery, little red clay in sampler	- 3/8" dia. bentonite chips
545 —	- - - - - - - -									End of Boring at 42 feet  Samples to Alpha Analytical:  18-22' below ground surface (564.72 to 560.72 elev.)  26-30' below ground surface (556.72 to 552.72 elev.)	
530 —	50 										
Strata li bounda may be made a	ries betwe gradual. V	en soil ty Vater lev ted. Wat	approximate vpes. Actual el readings er levels ma	trai hav	ve been pe	ROJEC SITY/STA	T NAME: ATE: _Bu	al Fuel Gas :_National F uffalo, New Y JMBER: _21	'ork	ower Scajaquada Creek	GEI Consultants, Inc. 100 Sylvan Parkway Suite 400 Buffalo, NY 14228

Borin	ng Loca	ation									<u> </u>	BORING
	THING:		_	E	EASTIN	NG: <u>1</u> ,	063,785	STATI	ON:	N/A OFFSET: N/A	Δ	BORING
				AD8	3 NY V	Nest Zo	ne ST/	ATION CENT	ER	INE: N/A		SED-BGL-1
	TCAL D ATION:	ATUN	I: <u>NAV</u>	D88			GR	OUND SURF	AC	E ELEVATION (FT): <u>563.2</u>		PAGE 1 of 1
			!									
	ng Info		<u>ion</u> 11/10/:	2021	- 11/10/	2021				TOTAL DEPTH (FT)	): 11.5	
1	RACTOR		othnagle		1 1,7 1 0,7		RILLER:	Kevin Busch	1	LOGGED BY: E.		
			je/Geopro	be				VOD: 4.5.1-	7.517	BORING METHOD:	Geoprobe	
	R ID/OD: IER TYPI		A / N/A Direct Push	n		_	CASING ID	//OD: <u>1.5 in</u> WEIGHT (lbs):			ich): N/A	
							r elevatio		_	· · ·		
	RAL NOT		Barge n				' above s Blows per Fo	surface wate		4.2' istrubed Tube Sample WOR = Weig	abt of Rods O =	= Pocket Penetrometer Strength
ABBIN	OD = Outside Diameter mpf = Minute per Foot C = Rock Core WOH = Weight of Hammer S <sub>v</sub> = Pocket Torvane Shear Strength Pen. = Penetration Length S = Split Spoon V = Field Vane Shear RQD = Rock Quality Designation F <sub>v</sub> = Field Vane Shear Strength Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured											
		Casing Pen.		S	AMPL	E INFO	RMATIO	N	8			
Elev. (ft)	Depth (ft)	(bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Lab Sample Depth	Field Test Data	GRAPHIC	Sample Description Classification		
_			1	1	0	48/24	Alpha		ħ	1		, , , , , , , , , , , , , , , , , , ,
-	-			$\mathbb{N}$	to 4			OVM=0.3		Recent Fluvial Deposits Blad		Water Depth: 9.8'
-	-			IXI			Alpha	OVIVI-0.3		organics, mussels shells, sept		Samples to Alpha Analytical:
560 —	<u> </u>			M						to little fine to medium subrout throughout, moist	nded gravel	0-0.5' below top of
				Ц				OVM=0.4				sediment (563.2' to 562.7' elev.)
-	_		2	M	4 to	48/48						,
-	<u></u> 5 ∣			M	8			OVM=0.2		As above, slightly more sand of throughout.	content, moist	12-14' below MP (562.2' to 560.2' elev.)
-	-			X						unoughout.		No forensics collected
_	<u> </u> -			M								The forestone contested
555 —	<u> </u>			Ц		40/40		OVM=0.3				
333			3	M	8 to	42/48						
-	<u> </u>			IYI -	11.5			OVM=0.2				
- - - 555 — -	<u></u> 10			M								
-	<u> </u>			H				OVM=0.1	Щ	probe refusal at 11.5' bgs in la	acustrine clay unit.	
-	-								1	End of Boring at 11.5 feet		
550 —	-											
_	_											
	15											
-	_ 13											
-	<u> </u>											
-	-											
545 —	-											
_	<u> </u>											
	_ 20											
_	[											
-	Ţ											
-	<u> </u>											
550 —   545 —   545 —   540 —	_											
bounda	ries betwee	en soil ty	approximate /pes. Actua /el readings	l transi				al Fuel Gas	1	Lower Socioguado Crast		GEI Consultants, Inc. 100 Sylvan Parkway
made at		ed. Wat	er levels m		- 10					Lower Scajaquada Creek		Suite 400
	CITY/STATE: Buffalo, New York GEI PROJECT NUMBER: 2101620  CITY/STATE: Buffalo, New York GEI PROJECT NUMBER: 2101620  GEI PROJECT NUMBER: 2101620											

HORIZONTAL DATUM: NAD83 NY		ERLINE: N/A	BORING SED-LSC-1							
VERTICAL DATUM: NAVD88 LOCATION:	GROUND SURF	FACE ELEVATION (FT):567.6	PAGE 1 of 1							
DATE START   Nothing										
Rec. = Recovery Length DP = Direct Push Sample SC = Sonic Core OVM = Organic Vapor Meter NA, NM = Not Applicable, Not Measured										
Elev. (ft) Depth (ppf) or Core Rate (mpf) No.	Pen./ Rec. (in) Lab Sample Depth Field Test Data	Sample Description & Classification								
1 0 to 2.5 10 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to 6.5 to	30/3	Recent Fluvial Deposits Black, very soft very slight suspect petroleum-like odor, so fine grained to medium grained sand, subrounded, saturated, no sheen  Same as above, no gravel present, susper petroleum odors still present  Same as above, some fine grained to coargained sand, trace medium angular/subargravel, black, stronger petroleum-like odo saturated with sheen  Historic Alluvial Deposits Transition to reddish/gray silt with clay, some fine sand bottom 3", very slight suspect petroleum of grained, subrounded to angular with silt are small medium angular gravel, saturated, petroleum sheen and odors present  Gray silty sand with fine grained to coarse grained sand and gravel, odors, saturated brown staining and suspect tar-like materic catcher  3" coarse alluvium (fine gravel and coarse Lacustrine Clay Reddish brown silty clarine grained to coarse grained sand and fingravel, subrounded, moist  Same as above, slight septic/organic odor	Analytical:  0-0.5' below top of sediment (567.6'-567.1' elev.)  11-15' below MP (563.1'-559.1' elev.)  Samples for forensics (Meta Env.)  7,  20-22' below MP (554.1' to 553.1' elev.)  in odor coarse and  d, dark tall in core to sand)  y, trace ne							
20   - 20	OVM=0.6	End of Boring at 22.5 feet								
Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.	poundaries between soil types. Actual transitions may be gradual. Water level readings have been nade at times stated. Water levels may be project NAME: National Fuel Lower Scajaquada Creek  National Fuel Lower Scajaquada Creek									

	ng Loc		_			000.0:		or:	N/A OFFORT N/A	BORING
HOR		L DA1	Γ <b>UM</b> : <u>N</u>	AD83 NY		ne ST	ATION CENT	ERL	INE: N/A	SED-LSC-2
_ I	TICAL D ATION:	ATUN	/I: NAVI	D88		GF	ROUND SURF	ACE	E ELEVATION (FT):	PAGE 1 of 1
	ing Info								l	
	E START / TRACTOR		11/9/20 othnagle	)21 - 11/9/		DRILLER:	Kevin Busc	า		_
	PMENT: ER ID/OD:		ge/Geoprol A / N/A	ре		CASING I	<b>D/OD:</b> 1.5 in	/ NI/A	BORING METHOD: Geoprobe	
НАМ	MER TYP	E:	Direct Push			HAMMER	WEIGHT (lbs):			_
			,	,	ace wate		on 572.9' surface wate	r- 57	4.1'	
_	REVIATION	S: ID	) = Inside Di D = Outside	ameter	bpf =	Blows per F Minute per	oot U	= Undi	istrubed Tube Sample WOR = Weight of Rods	Q <sub>P</sub> = Pocket Penetrometer Strength S <sub>v</sub> = Pocket Torvane Shear Strength
			en. = Penetr ec. = Recov		h S=S	plit Spoon Direct Push	V		Vane Shear RQD = Rock Quality Designation	= Field Vane Shear Strength NA, NM = Not Applicable, Not Measured
		Casing Pen.	1	SAMF	LE INFO	RMATIC	1	Pog	Comple	
Elev. (ft)	Depth (ft)	(bpf) or Core Rate (mpf)	Sample No.	e Depth ⊢ (ft)	Pen./ Rec. (in)	Lab Sample Depth	Field Test Data	GRAPHIC	Sample Description & Classification	
	1		1	0 to 5	60/2	Alpha		000		Water Depth: 4.8'
	+							000	Recent Fluvial Deposits Single piece of wood, black, no odors.	Samples to Alpha Analytical:
565 -	†			$\mathbb{N}$				300		0-0.5' below top of sediment (568.0' to 567.5' elev.)
4/11/2	5									14-16' below MP
05	]		2	5 to	36/15		OVM=108.2	00	Wood material in upper 6" Black sand, fine grained to coarse grained,	(560.1' to 558.1' elev.)
NEW C	_			8			OVM=199.4	00	subangular, subrounded, small subangular grave Grading to silty fine to coarse sand, some clay, black, some sandy subangular gravel, strong	Samples for forensics (Meta Env.)
ල්  ≧  560 -	_		3	8	48/31	Meta		200	petroleum (suspect gasoline) odors and brown liquid	13-14' below MP
K SITE	+			to 12	40/31	Alpha	OVM=101.6		Historic Alluvial Deposits Reddish brown silty clay with brown staining on exterior, NAPL blebs within core	
Ada creek site_ew.gpj new.gdt 4/11/22 99 -	<del> </del> 10			X			OVM=20.7		William Solid	
OG OT OT OT OT OT OT OT OT OT OT OT OT OT	†			/\					as above, suspect tar-like material at base of co	ro
Y 555 -	† +		4	12 to 16	48/18				Gray/reddish brown, moist, petroleum odors, staining	lo.
- GEOTECHNICAL BORING LOG 02 2101620_NATIONAL FUEL LOWER SCAJAGO 55 - 65 - 65 - 65 - 65 - 65 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 - 75 -	+			X					Lacustrine Clay Reddish brown silty clay, stiff, moist, no odors/staining	
TONAL F	15		_		40/40				Company on about the state of t	
20_NAT	+		5	16 to 20	48/48		OVM=0.4		Same as above, no evidence of impacts, moist	
550 -	+			X			0.44.00			
00 00	+			$\backslash \backslash$			OVM=0.2			
KING	- 20							$\frac{111}{1}$		$\dashv$
AL BO	+								End of Boring at 20 feet	
NE NE NE NE NE NE NE NE NE NE NE NE NE N	+									
545-	<u> </u>									
	aries betwe	en soil ty	approximate ypes. Actual vel readings	transitions			nal Fuel Gas	المرز	Lower Scajaquada Creek	GEI Consultants, Inc. 100 Sylvan Parkway
ნ made :		ted. Wat	ter levels ma		CITY/ST	ATE: _B	uffalo, New \	ork/	GEI	Suite 400
₫					GEI PRO	JECT N	UMBER: 21	0162	20 ULI Consultan	s Buffalo, NY 14228

NORT HORE VERT	ZONTA	1,0 L <b>DAT</b>	67,522			ne ST	ATION CEN	ΓERL	N/A OFFSET: N/A INE: N/A : ELEVATION (FT): 566.3	,	BORING SED-LSC-3 PAGE 1 of 1
Drilli DATE CONT	ng Info START / RACTOR	<b>END</b> :	11/9/20			ORILLER:	Kevin Busc	h	TOTAL DEPTH (FT): 21.5  LOGGED BY: E. Wood  BORING METHOD: Geoprobe		
AUGE HAMN WATE	R ID/OD: IER TYP IR LEVEL	 E: ELEV	A / N/A Direct Push 'ATIONS (	ft): <u>Sur</u>	face wate	HAMMER r elevatio		: <u>N</u>	/A HAMMER DROP (inch): N/A		
	EVIATION	S: ID OI Pe	= Inside Dia D = Outside en. = Penetra ec. = Recove	ameter Diameter ation Leng	bpf = 1 mpf = th S = S <sub>I</sub>	Blows per Fo Minute per I olit Spoon Direct Push	Foot C V	= Und = Roc = Field	strubed Tube Sample WOR = Weight of Rods	S√,= n F√,=	Pocket Penetrometer Strength Pocket Torvane Shear Strength Field Vane Shear Strength NM = Not Applicable, Not Measured
Elev. (ft)	Depth (ft)	Casing Pen. (bpf) or Core Rate (mpf)	Sample No.		PLE INFO Pen./ Rec. (in)	Lab Sample Depth	N Field Test Data	GRAPHIC LOG	Sample Description & Classification		
- - 565 — - 27	-		1	0 to 5.5	66/5	Alpha	OVM=2.4	0000000	Recent Fluvial Deposits Black silt, trace gr and fine grained sand, subrounded, saturate with sheen and slight petroleum-like odor		Water Depth: 6.6'  Samples to Alpha Analytical:  0-0.5' below top of sediment (567.5' to 567.0' elev.)
TE_EW.GPJ NEW.GDT 4/11/22 0995 -	5		2	5.5 to 9.5	48/15	Met	OVM=29.8 OVM=30.9		Same as above Grades to silty sand, black, fine grained to or grained, subrounded with small gravel, coal tar-like odor, saturated with sheen	oarse	13-16' below MP (561.1 to 558.1' elev.)  Samples for forensics (Meta Env.)  14-15' below MP (560.1 to 559.1' elev.)
DUADA CREEK SITE	10 - a		3	9.5 to 13.5	48/13	pha	OVM=398		Same as above		
NAL FUEL LOWER SCAJAC	AI15		4	13.5 to 17.5			OVM=100.2 OVM=8.2		Lacustrine Clay Reddish brown silty clay, s moist, moderate coal tar-like odor, no stainin sheen on water in core.  Same as above, slightly gray color with slightar-like odor	ıg, sligh	t
- GEOTECHNICAL BORING LOG 02 2/01620_NATIONAL FUEL LOWER SCAJACA			5	17.5 to 21.5			OVM=27.2 OVM=1.2		Same as above, moist		
- GEOTECHNICAL BORI	- - - - - -						OVM=1.1		End of Boring at 21.5 feet		
Strata li bounda may be made a	ries betwee gradual. V	en soil ty /ater lev ed. Wat	approximate /pes. Actual rel readings er levels ma	transitions have been	PROJEC	T NAME	al Fuel Gas : National   uffalo, New` UMBER: 2	York	Lower Scajaquada Creek		GEI Consultants, Inc. 100 Sylvan Parkway Suite 400 Buffalo, NY 14228

Boris	ng Loc	ation								1	BORING
			 67,408	Е	EASTIN	NG: 1,	,063,987	STATIC	N:	N/A OFFSET: N/A	BORING
				AD8	3 NY \	Nest Zo	ne ST	ATION CENT			SED-LSC-4
	TCAL D ATION:	ATUN	1: NAV	D88			GR	OUND SURI	ACE	ELEVATION (FT): <u>564.7</u>	PAGE 1 of 1
	ng Info		<u>ion</u> 11/10/:	2021	11/10	2021				TOTAL DEPTH (FT): 16.0	
1	RACTOR		othnagle	2021	- 11/10/		ORILLER:	Kevin Busc	h	TOTAL DEPTH (FT): 16.0 LOGGED BY: E. Wood	_
EQUIF	MENT:	Barg	je/Geopro	be						BORING METHOD: Geoprobe	_
	R ID/OD:					_	CASING IE				
			irect Pusi		Surfa			<b>WEIGHT (lbs)</b> on 572.9'		A HAMMER DROP (INCH): N/A	_
	RAL NO							surface wat	er- 5	74.1'	
ABBR	EVIATION	OI Pe	= Inside D D = Outside en. = Penet ec. = Recov	Diam	neter Length	mpf = I S = Sp	Blows per Fo Minute per Fo Dit Spoon Direct Push	Foot C V	= Roc = Field	strubed Tube Sample COre WOR = Weight of Rods WOH = Weight of Hammer RQD = Rock Quality Designation ovM = Organic Vapor Meter	$Q_p$ = Pocket Penetrometer Strength $S_v$ = Pocket Torvane Shear Strength $F_v$ = Field Vane Shear Strength NA, NM = Not Applicable, Not Measured
		Casing Pen.		S	AMPL	E INFO	RMATIO	N	09		
Elev. (ft)	Depth (ft)	(bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Lab Sample Depth	Field Test Data	GRAPHIC	Sample Description & Classification	
-			1	M	0 to	48/9	Alpha	OVM=0.1	00		W-1 P
					4					Recent Fluvial Deposits Black silt, organic	Water Depth: 8.3'
	-			IXI					60	material with fine grained subangular sand and small subangular gravel	Samples to Alpha Analytical:
-	-			M					6	Grades to fine to coarse subangular, subrounde	
-	_			Ц		4044			lo C	gravel with silty sand, saturated with coal tar-lik odors, staining	sediment
560 — - - - - 555 —	ا ِ		2	M	4 to	48/11	Meta	OVM=4.4	6	3" same as above, sheen, saturated	(564.7' to 564.2' elev.)
_	<u> </u>			M	8					Lacustrine Clav Reddish brown silty clay.	14-16' below MP
	-			IXI						moist, sheen on exterior of core, coal tar-like oc no staining within core	
-	-			$\backslash\!\!\backslash$			Alpha				Samples for forensics (Meta Env.)
	-		3	H	8	48/48		OVM=0.4	Ш		13-14' below MP
-	-			M	to 12			OVIVI-0.4		Same as above, coal tar-like odors and sheen or water on exterior of core but no evidence within	
555 —	10			IYI						core, moist	
-	-			M						Same as above, no sheen/odors, moist	
				N				OVM=12.0			
	-		4	H	12	48/48		OVM=0.2			
-	-			M	to 16			OVIVI-0.2			
-	_			Y							
550 —	ا ـ ا			M							
.	<u> </u>			//						Little fine grained to medium grained well	
				+				OVM=1.1	Ш	Little fine grained to medium grained well rounded sand (6")	
-	-							OVIVI-1.1		End of Boring at 16 feet	
-	_									• • • • • • • • • • • • • • • • • • •	
] -	-										
545 —											
	<u> </u>										
-	-										
-	_										
] -	-										
550 —											
Strata li			approximate		itions C	LIENT:	Nation:	al Fuel Gas			▼ GEI Consultants, Inc.
may be	gradual. V	ater lev	/pes. Actua /el readings ter levels m	have	been P	ROJEC	TNAME	: National F		_ower Scajaquada Creek	100 Sylvan Parkway
	at other ti			, 20				uffalo, New `		GEI Consulta	Suite 400
					G	EI PRO	JECT N	JMBER: <u>21</u>	U16:	20 Consulta	nts Buffalo, NY 14228

Boring Location NORTHING: 1,067,332 EAS HORIZONTAL DATUM: NAD83 N		ON: <u>N/A</u> OFFSET: <u>N/A</u> ERLINE: N/A	BORING SED-LSC-5
I		ACE ELEVATION (FT): 565.2	PAGE 1 of 1
Drilling Information  DATE START / END:11/10/2021 - 11  CONTRACTOR:Nothnagle  EQUIPMENT: Barge/Geoprobe	/10/2021  DRILLER: Kevin Busch	TOTAL DEPTH (FT):	
AUGER ID/OD: N/A / N/A HAMMER TYPE: Direct Push WATER LEVEL ELEVATIONS (ft): St	CASING ID/OD: _1.5 in / HAMMER WEIGHT (lbs): rface water elevation 572.9'	N/A	
GENERAL NOTES: Barge measuri  ABBREVIATIONS: ID = Inside Diameter OD = Outside Diameter Pen. = Penetration Leng Rec. = Recovery Lengt	bpf = Blows per Foot	574.1'  Undistrubed Tube Sample Rock Core WOH = Weight of Rods WOH = Weight of Hammer Field Vane Shear RQD = Rock Quality Design OVM = Organic Vapor Mete	nation F <sub>v</sub> = Field Vane Shear Strength
Casing SAM	PLE INFORMATION	9	
Elev. (ft) (ft) (core Rate (mpf) Sample No.	(in) Depth Data	Sample Description & Classification	
565 — 1 0 to			Water Depth: 7.8'
2	OVM=10.6	Recent Fluvial Deposits- Black to reddie silty clay with fine grained to coarse grain sand, subangular, small subangular grave saturated	Samples to Alpha Analytical:  0-0.5' below top of
25 17/1/22 SPU NEW.GDT 4/1	Meta Meta	Same as above, slight coal tar-like odor a decreasing sand and gravel content.  Blebs of tar-like material and strong coal odor within sample core, saturated with s Black fine to medium silty sand, trace classheen, saturated Same as above,tar-like material and coal odors  Lacustrine Clay- Reddish brown silty class	tar -like heen y, tar-like Samples for forensics (Meta Env.)
3	48/48 OVM=1.0	moist, slight gray seaming (6") with strong tar-like odors, sheen on exterior of core, second tar odors on sampler and water likely passing through impacted interval above.  Trace small gravel at 10'. (dropstone?)	g coal 14-15' below MP slight (560.0' to 559.0' elev.) g from
13 to 17 550 — 15 — 15 — 15 — 15 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17 5 — 17	48/48 OVM=0.0	No apparent impact.  As above, with little fine grained to mediu grained sand, moist	m
D NAT	OVM=7.6		
- GEOTECHNICAL BORING LOG 02 2101620 NATIONAL FUEL LOWER SCALAGO.  1.		End of Boring at 17 feet	
Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.		ork GEI	GEI Consultants, Inc. 100 Sylvan Parkway Suite 400 onsultants Buffalo, NY 14228

N H	IORT IORIZ	ZONTA	1,0 L <b>DAT</b>	67,382	AD	83 NY			ATION CENT	ERL	N/A OFFSET: N/A INE: N/A : ELEVATION (FT): 564.7	_	BORING SED-LSC-6
		TION:											PAGE 1 of 1
D. C	ATE ONTI	ng Info Start / Ractor Ment: R ID/OD:	END: E: S. Barg	11/3/20		- 11/3/20		ORILLER:	_Art Koske	N/A	TOTAL DEPTH (FT): _16.0  LOGGED BY: E. Wood  BORING METHOD: _Geoprol	pe	
		ER TYP	_	irect Push		Surfa			<b>WEIGHT (lbs)</b> : on 573.2'	_N	/A HAMMER DROP (inch): N/A	<u> </u>	
- 1				Measuri				55	511 57 5.2				
_	ABBRE	VIATION	OI Pe	= Inside Di D = Outside en. = Penetr ec. = Recov	Dia ation ery I	meter n Length Length	mpf = S = Sp DP = [	Blows per Fo Minute per Fo Dit Spoon Direct Push	Foot C V: Sample S0	= Rock = Field C = So	strubed Tube Sample Core WOR = Weight of Rods WOH = Weight of Hamme Vane Shear inic Core RQD = Rock Quality Desig OVM = Organic Vapor Me	r S√,=l gnation F <sub>v</sub> =l	Pocket Penetrometer Strength Pocket Torvane Shear Strength Field Vane Shear Strength IM = Not Applicable, Not Measured
			Casing Pen.		· (	SAMPL	E INFO	RMATIO		8	Sample		
	lev. (ft)	Depth (ft)	(bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Lab Sample Depth	Field Test Data	GRAPHIC LOG	Description & Classification		
	-	-		2	M M	0 to 2 2 to 4	24/1	Alpha	OVM=0 OVM=8.7		Recent Fluvial Deposits little black an gravel, mussel shells, loose. as above, slight coal tar-like odor.	gular	Water Depth: 8.5'  Samples to Alpha Analytical:
JADA CREEK SITE_EW.GPJ NEW.GDT 4/11/22	- 60 — -	- - 5		3		4 to 6	24/10	Meta	OVM=13		black silty fine to medium sand with fine gravel, suspect tar-like material staining coal tar-like odor.	angular and strong	0-0.5' below top of sediment (564.7' to 564.2 elev.) 12-19' below MP (561.2' to 553.7' elev.)
EW.GPJ NEV	-	-		5	M	6 to 8	24/6		OVM=18	000	medium to coarse grey sand with mediu subangular gravel, loose, NAPL blebs, n coal tar-like odor, saturated.	m noderate	Samples for forensics (Meta Env.) 12-19' below MP
CREEK SITE 1	- 555 —	- - 10		6	$\bigvee$	8 to 10	24/6		OVM=37		Historic Alluvial Deposits fine gray san trace silt. Suspect tar-like material stair and moderate coal tar-like odor, saturate	ing, blebs	(561.2' to 553.7' elev.)
JAQUADA	-	_			$\bigvee$	to 12		Alpha	OVM=18.3		as above to 11.5' bgs with tar-like mater		
OWER SCA	-	_		7	$\mathbb{M}$	12 to 14	24/8		OVM=		Lacustrine Clay reddish brown silty clay Coal tar on outside of sampler from pass through impacted interval above.		
IONAL FUEL I	50 — -	— 15 –		8	M	14 to 16	24/0		OVM=				
LOG 02 2101620_NAT	- - 45-	_									End of Boring at 16 feet		
- GEOTECHNICAL BORING LOG 02 2101620 NATIONAL FUEL LOWER SCAJAQU	-	— 20 - -											
ONBURY SE SE SE	oundar ay be g ade at	ies betwe gradual. V	en soil ty /ater lev ed. Wat	 approximate /pes. Actual /el readings er levels ma	tran have	e been	PROJEC CITY/ST/	T NAME	al Fuel Gas : National Fuffalo, New Yumber: 21	ork/	Lower Scajaquada Creek	1 S	GEI Consultants, Inc. 00 Sylvan Parkway Guite 400 Buffalo, NY 14228

HORIZONTAL DATUM: NAD83 NY			BORING SED-LSC-7 PAGE 1 of 1
DATE START / END:         11/2/2021 - 11/2/2           CONTRACTOR:         SJB           EQUIPMENT:         Barge/Geoprobe           AUGER ID/OD:         N/A / N/A	2021  DRILLER: Art Koske  CASING ID/OD: 3 in / N//	TOTAL DEPTH (FT): 16.0  LOGGED BY: M. Cummings  BORING METHOD: Geoprobe	
HAMMER TYPE: Direct Push WATER LEVEL ELEVATIONS (ft): Surf GENERAL NOTES: Measuring point		N/A HAMMER DROP (inch): N/A	
ABBREVIATIONS: ID = Inside Diameter OD = Outside Diameter Pen. = Penetration Length Rec. = Recovery Length	bpf = Blows per Foot         U = U           mpf = Minute per Foot         C = R           h         S = Split Spoon         V = F           DP = Direct Push Sample         SC =	Rock Core     WOH = Weight of Hammer     Sv       ield Vane Shear     RQD = Rock Quality Designation     Fv       Sonic Core     OVM = Organic Vapor Meter     NA	= Pocket Penetrometer Strength = Pocket Torvane Shear Strength = Field Vane Shear Strength , NM = Not Applicable, Not Measured
Elev. (ft) Depth (ft) Casing Pen. (bpf) or Core Rate (mpf) No.	Pen./ Lab Field Test Depth Data	Sample  Description & Classification	
565—	24/6 Alpha OVM=0.5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Recent Fluvial Deposits black detrital matter, sticks, zebra mussels, leaves, little medium rounded gravel, loose, light sheen 2"-6" Gray silty fine sand, firm, light petroleum-type odor, no visual impacts  Gray/brown mottled sandy silt, grading to gray silty sand with rounded medium gravel, moist throughout, sheens throughout, light staining and coal tar-like odor  Historic Fluvial Deposits- Fine to medium gray sand with gravel (fine to medium rounded),	Water Depth: 8.0'  Samples to Alpha Analytical:  0-0.5' below top of sediment (565.8' to 565.3' elev.)  12-18' below MP (561.8' to 553.8' elev.)  Samples for forensics (Meta Env.)
SER SCAJAQUADDA CREEK SITE_EW.GDJ NEW.GDT 4/11/22  4	24/16 OVM=18  24/5 OVM=10  24/12 Alpha	saturated, suspect tar-like material, sheen, few NAPL blebs, strong coal tar-like odor Dark gray to black silty sand with gravel, some clay, "blebs" of brown suspect tar-like material with petroleum-like odor, heavy staining  Lacustrine Clay- Reddish brown silty clay with few pieces of angular medium gravel with suspect tar-like material within upper clay unit.	
8 14 to 16 550 - 15   8   14 to 16	24/2		
AND MANUAL CONTROL OF THE PROPERTY OF THE PROP		End of Boring at 16 feet	
Strata lines represent the approximate boundaries between soil types. Actual transitions may be gradual. Water level readings have been made at times stated. Water levels may be different at other times.	CLIENT: National Fuel Gas PROJECT NAME: National Fue CITY/STATE: Buffalo, New Yor GEI PROJECT NUMBER: 2101	rk GEI	GEI Consultants, Inc. 100 Sylvan Parkway Suite 400 Buffalo, NY 14228

Во	ring	Loca	ation								BORING
				67,750				,064,582			N/A OFFSET: N/A
				1: <u>NAV</u>			vest zo		ATION CEN OUND SUR		ELEVATION (FT): 566.6
LO	CATI	ION:									PAGE 1 of 1
			rmat								
1		ART /		_ <u>11/1/20</u> JB	J21	- 11/1/20		ORILLER:	Art Koske		TOTAL DEPTH (FT): 12.2 LOGGED BY: M. Cummings
		ENT:		e/Geopro	be						BORING METHOD: Geoprobe
		D/OD: R TYPI		A / N/A Direct Push	1			CASING ID	)/OD: <u>3 in /</u> WEIGHT (lbs)		A HAMMER DROP (inch): N/A
								r elevatio	on 573.4'		<del></del>
$\vdash$		ATION		Measuri = Inside Di	_	•		Blows per Fo	pot U	= Undi	trubed Tube Sample WOR = Weight of Rods $Q_p$ = Pocket Penetrometer Strength
			Pe	D = Outside en. = Penet ec. = Recov	ratio	n Length	S = Sp	Minute per F blit Spoon Direct Push	V		
			Casing Pen.		;	SAMPL	E INFO	RMATIO	N	8	2
Ele (ft		epth (ft)	(bpf) or Core Rate (mpf)	Sample No.	Type	Depth (ft)	Pen./ Rec. (in)	Lab Sample Depth	Field Test Data	GRAPHIC LOG	Sample Description & Classification
				1	M	0 to	26.4/8	Alpha	OVM=0.1	00	Water Depth: 6.8'
565					X	2.2			OVM=1.4	000	Recent Fluvial Deposits Medium angular to Samples to Alpha
300	'干			2	()	2.2	24/3			60	rounded gravel, organics, fine to coarse sand, saturated.
	7				X	to 4.2			OVM=24.1	0	0-0.5' below top of
	1				$\triangle$		04/0			60	black silty clay, saturated, slight petroleum-like sediment (566.6' to 566.1' elev.)
	+	- 5		3	M	4.2 to	24/3	Alpha & Meta	OVM=11.1	ő	odor. 6.8 to 15.0' below MP
	+				$\setminus$	6.2				000	(566.6 to 558.4' elev.)
560				4	$\bigvee$	6.2 to	24/7		OVM=6.9	00	Samples for forensics (Meta Env.)
	_				$\bigvee$	8.2				0	as above with petroleum-like odor.  6.8 to 15.0" below MP
	-			5	$\bigvee$	8.2	24/10	-	OVM=4.7	60	(566.6' to 558.4' elev.)
	-	- 10			$\bigwedge$	to 10.2	2442				Historic Alluvium Gray clayey silt, moist, trace
555	5—			6	M	10.2 to 12.2	24/12		OVM=6.2		Lacustrine Clay Reddish grey silty clay, trace find sand.
	+				/ \					////	End of Boring at 12.2 feet
	+										
	_	15									
	4										
550	J_										
	_										
	亅										
	}										
	$\vdash$	- 20									
	1										
545	5 <del>-</del>										
	+										
Strat				l approximate pes. Actual		nsitions C	LIENT:	 _Nationa	al Fuel Gas		GEI Consultants, Inc.
may mad	be gra le at tim	idual. W nes stat	/ater lev ed. Wat	el readings er levels ma	hav	e been	PROJEC	TNAME	: National		ower Scajaquada Creek 100 Sylvan Parkway
555C	rent at	other tii	mes.						uffalo, New 2		

## SCAJAQUADA EXPRESSWAY PROJECT UNLISTED

## 1956 NEW YORK STATE DEPARTMENT OF TRANSPORTATION



SM 282 E 12/02							_ _ _	DEPARTM GEOTECHN SUBSURF UN	MENT OF T LICAL ENG FACE EXP OFFIC	PLORATIO	BUREAU ON LOG G			E Baselin A 454+61 T 340 ft EV. 571.	le LEFT	
			<b>ATES</b> 7/8 i		DATI	E STA	RT _	12-NOV-19	56	DATUM DATE F		20-NO\			SEE NOTE	
SAMI	NG O. PLER O.			n n	I. D				HAMMER-0 HAMMER-9		300 300	lb lb		ALL-CASING		in in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		6	/	in	MOIST. CONT. (%)			DESC	CRIPTION	I OF SOI	L AND ROO	CK		
	0.0							(0.00)	Water - I	Black Rock	Channel					
		-														
WOH	5.0							(4.00)	Black SI	LT, Some	Sand An	d Organi	ic Muck			-NPL)
WOH		J1	WOH	WOH	l											
WOH		]			WOH											
WOH																
WOH		_														
WOH	10.0	J2	WOH													
WOH		- 02		wон	WOH											
WOH		_														
WOH																
WOH																
WOH	15.0	J3	7						Red SAN	ND, Trace	Silt And (	Clay			(W	-LPL)
24		<u> </u>		8	9											
35																
22								(18.00)	Red SIL	T , Some C	lay, Trac	e Gravel	And Fine S	Sand	<u>(</u> M	1-PL)
19	20.0					_										
27		J4	5	6												
30					8											
40		-						<u>(33_00/</u> _	Bed CL	AY, Some	Sil+				<del>-</del>	1-PL)
18		J5	1					(23.00)	TIEU OLF	ai, suille	Oiit				(IV	ı∸ı <b>∟</b> )
18	25.0		<u> </u>	1		_										
and acco pres the of th	l estimate ess to the sented in information	purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial purpose same good factorial pu	ses. inforraith. esentes site.	It is mation mation By the s only Inte	nade a n avai e natu y a sm rpolat	availal lable ire of nall fra ion be	ole so to to the S the exp action o etween	ained for desi hat users ma State. It is oloration proc of the total vol data samples red.	y have ess, ume s may	DRILL RIG SOIL & RO REG GEOT ENGINEE DATE APP RESIDENT STRUCTUI	CK DESO FECHNICA R ROVED ENGINE	CRIPTION AL L ER	N H. Dani		103989	
COI	NTRACT		(	CONT	TRAC	TOR	_Wes	tville Engine		Route 198 SHEET 1		ver I-190	) H	OLE DI	H-B-C-3	

COUNTY ERIE PIN PROJECT SCAJAQUADA CREEK EXPRESSV SCALED COORDINATES (N) 1,067,466.670								DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX UNOFFIC SWAY DELAWARE F	GINEERING (PLORATIC CIAL LO	BUREAU ON LOG IG NAD8	3 20-NO	LINE STA OFFSET SURF. ELEV. DEPTH TO WA	571.11	
CASI	NG O. PLER O.		7/8 iı iı	n		<b>)</b> . 2	3/8	in WT OF HAMMER	-CASING	300 300	lb lb	HAMMER FALL HAMMER FALL		18 <b>in</b> 18 <b>in</b>
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S	6	VS OI	N in	MOIST. CONT. (%)			CRIPTION	N OF SOI	L AND ROCK	-	-
19	25.0				1			(25.00) Red CL	AY , Some	Silt				(M-PL)
20														
16														
16		J6	1											
15	30.0			1	1									
19					ľ									
23														
21		-												
33		J7	1											
21	35.0	"	'	1	2									
35					_									
41														
41	<u> </u>							(38.00) Red Sil	T Somo (	Tov Troc	- Gravo	And Eine Sand	<del>1</del>	(M-PL)
54	<u> </u>	J8	1					(30.00) Ned 311	i , Some C	Jiay, Tiac	e Grave	I And I me Sand	ı	(IVI-F L)
31	40.0	00		2	2									
37					_									
42														
71														
71	<u> </u>	J9	2											
55	45.0	""		2	3									
61														
78														
85														
80		J10	2											
65	50.0	310		3										
and acc pres the of th	The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.						that users may have State. It is ploration process, of the total volume data samples may	REG GEO ENGINES DATE APP RESIDENT STRUCTU	DCK DESO TECHNIC ER PROVED TENGINE RE NAME	CRIPTIO AL L EER	N H. Daniels  JNOFFICIAL	LOG  B.I.N.	103989C	
COI	NTRACT		(	CONT	ΓRAC	TOR	_Wes	stville Engineering	Route 198		ver I-190	) HOL	E DH-B	-C-3

PSN REG COU	M 282 E 12/02   PSN							STATE OF DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX UNOFFICE	GINEERING I (PLORATIC	BUREAU ON LOG		HOLE DH-E LINE Base	eline -61
PRO	JECT S			_(1		067,4	66.670	SWAY DELAWARE F		NAD83	3 20-NO\	SURF. ELEV. 57 DEPTH TO WATER	
CASI	NG O. I PLER O. I		7/8 iı iı		1. C 1. C			in WT OF HAMMER in WT OF HAMMER		300 300	lb lb	HAMMER FALL-CAS HAMMER FALL-SAM	
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S	6	VS OI LER 12 18	in 18	MOIST. CONT. (%)		DESC	CRIPTION	OF SOI	L AND ROCK	
85	50.0				З			(50.00) Red SII	T , Some C	Clay, Trace	e Gravel	And Fine Sand	(M-PL)
96													
100													
110		14.4											
115	55.0	J11	4	7									
195					11								
165													
177									·	=			
245								(58.00) Red CL	AY , Some	Silt			(M-PL)
195	60.0	J12	2	5									
219					5								
221								L					
211								(62.00) Red SII	₋T , Some C	Clay			(M-PL)
213													
145	65.0	J13	2	4									
128					4								
115									.=		:		
185								(67.00) Gray SI	LT , Some (	Gravel An	ıd Sand,	Trace Clay	(D-LW)
245													
115	70.0	J14	13	31									
250					55								
550	<u> </u>												
410	<u> </u>												
340	<u> </u>	R1					<u></u>			73'8" To	78'8" L	IMESTONE , Fracti	ured
	75.0							And Bro REC.	oken 31" 51.7%	25			
and acco pres the of th	l estimate ess to the sented in g information	purpos same good fa n repre al at the	ses. I inforn aith. I esent e site.	It is m mation By the s only Inte	nade a n avai e natu / a sn rpolat	availa ilable ire of nall fra tion b	ble so to to the c the exp action o etween	I ained for design that users may have State. It is ploration process, of the total volume adata samples may red.	REG GEOT ENGINEE DATE APP RESIDENT STRUCTUI	CK DESC FECHNICA R ROVED ENGINEI RE NAME	CRIPTIOI AL L ER	N H. Daniels  INOFFICIAL LO  B.I.N	
COI	NTRACT		(	CONT	ΓRAC	TOR	_Wes	stville Engineering	Route 198		ver I-190	HOLE	DH-B-C-3

PSN 282 PSN REGI COU			_ B0	ORNUM	l <u>31</u>		888	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING BUREAU SUBSURFACE EXPLORATION LOG	LINE	DH-B-C Baselin 454+61		
	ED COO	RDINA		_(N) <b>DA</b>		466.6 <b>FART</b>	70		OFFSET SURF. ELEV DEPTH TO W DV-1956 HAMMER FAL	. <u>571.1</u> /ATER	1 SEE NOT	<u>E</u> in
SAME	LER O.	<b>)</b> . 2	ir	ո	. <b>D</b> .	1 3/8	in	WT OF HAMMER-SAMPLER 300 lb	HAMMER FAL	L-SAMPLI	<b>ER</b> 18	in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S	BLOWS AMPLE	R in	MOIS CON (%)	IT.	DESCRIPTION OF SO	OIL AND ROCK			
	75.0   80.0	R2						(78.66) Run #2 Drilled from 78'8" To 83'8" And Broken REC. 35" 58.3% 38	LIMESTONE,	Fracture	d	

Ground elevation is the surface of the Black Rock Channel. Groundwater elevation is the surface of the Black Rock Channel. Artesian condition encountered at 83.67 feet, flow of approximately 1 gal/min, continued until all casing was pulled.

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

CONTRACT CONTRACTOR Westville Engineering SHEET 4 OF 4

DRILL RIG OPERATOR		
<b>SOIL &amp; ROCK DESCRIPTION</b>	H. Daniels	
REG GEOTECHNICAL		
ENGINEERUN	IOFFICIAL LOG	
DATE APPROVED		
RESIDENT ENGINEER		
STRUCTURE NAME	B.I.N	103989C
Route 198 Ramp over I-190		
CHEET A OF A	HOLE DH	_B_C_3

PSN REG COU PIN PRO	ION 5 NTY 6	RIE SCAJA	QUA	DA C		K EX	  	DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE E. UNOFFIC SWAY DELAWARE	IGINEERING XPLORATIC CIAL LO PARK	BUREAU ON LOG		LINE		
CASI			7/8 i:		DATI	E ST	ART _	07-NOV-1956 in WT OF HAMMER	DATE F		12-NO\   1b			18 in
	PLER O.			n	I. C			in WT OF HAMMER		300	lb	HAMMER FAL		18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		6	/	in 18	MOIST. CONT. (%)		DES	CRIPTION	I OF SOI	L AND ROCK		
	0.0							(0.00) Water	- Black Rock	Channel				
		-												
WOH		J1	WOH	WOH				(3.50) Black S	SILT , Some	Clay And	l Organio	Matter, Trace	Sand	(W-PL)
WOH	5.0				WOH									
WOH														
1		-												
1		-												
1		-												
1	10.0	J2	WOH											
1		"-		wон	WOH									
1														
3		-												
2														
4	15.0	J3	3					(15.00) Red Cl	LAY, Some	Silt			- – – – – -	(M-PL)
17				3	10									, ,
16		1												
24														
33														
37	20.0	J4	3											
29				3	4									
33		-												
33		-												
26	<u> </u>	-												
22	25.0													
and acc pres the of th	l estimate ess to the sented in information	purpose same good factorial purpose factorial pu	ses. I inforr aith. I esent e site.	It is m mation By the s only Inte	nade a n avai e natu / a sn rpolat	availa lable ire of nall fr ion b	ble so t to the S the exp action c etween	ained for design that users may have State. It is bloration process, of the total volume data samples may red.	DRILL RIG SOIL & RO REG GEO ENGINEE DATE APP RESIDENT STRUCTU	OCK DESC TECHNIC ER PROVED ENGINE	CRIPTION AL L ER	N H. Daniels		103989C
COI	NTRACT		(	CONT	ΓRAC	TOR	Wes	stville Engineering_	Route 198	Ramp o			LE DH-E	

PSN REG COU PIN PRO	ION _ NTY _ JECT _ LED CO	ORDIN	QUA	DA C		K EX 067,4 <b>E ST</b>		GEOTECHNICAL ENGINEERING BUREAU SUBSURFACE EXPLORATION LOG STA UNOFFICIAL LOG OFFSET WAY DELAWARE PARK SURF. ELEV	332 ft LEFT  7. 571.82  WATER SEE NOTE
	PLER C			n	1. [		3/8	N WT OF HAMMER-SAMPLER 300 Ib HAMMER FA	LL-SAMPLER 18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		6	VS OF PLER 12 18	in 18	MOIST. CONT. (%)	DESCRIPTION OF SOIL AND ROCK	[
14	25.0	J5	1	2	10	24		(25.00) Red CLAY , Some Silt	(M-PL)
14				-	4				
13								(27.00) Red SILT , Some Clay, Trace Gravel And Fine Sa	and (M-PL)
23		-							
22									
26	30.0	J6	1						
21				1	2				
28									
32									
32									
36	35.0								
25		J7	2	2					
31					3				
36									
36									
37	40.0								
	40.0	J8	2	3					
32				3	4				
32									
37								(43.00) Red CLAY, Some Silt	
43									
48	45.0	J9	2				L 		
55		-		4	5				
70	<u> </u>								
67	L -								
78	L _								
90	50.0						L		
and acc pres the of th	subsurities to the sented in information materials be indicentals.	B.I.N103989C							

PSN REG COU PIN	ION 5 NTY E	RIE			UM _			DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX UNOFFICE	GINEERING (PLORATIC <b>CIAL LO</b>	BUREAU ON LOG			DH-B-C-4 Baseline 454+09 332 ft LE	EFT
	JECT _S							SWAY DELAWARE I (E) 1,063,686.550		NAD8	3	SURF. ELEV DEPTH TO V		
					DAT	E ST	ART _	07-NOV-1956	DATE F	INISH _	12-NO	V-1956		
CASII	NG O. PLER O.		7/8 iı iı		I. C			in WT OF HAMMER in WT OF HAMMER		300 300	lb lb	HAMMER FAL		18 in R 18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		AMP		in 18	MOIST. CONT. (%)		DES	CRIPTION	N OF SO	IL AND ROCK		
40	50.0	J10	2	4				(50.00) Red SI	_T , Some (	Clay, Trac	e Grave	l And Fine Sa	nd	(M-PL)
44					4									
44														
83														
81	55.0	J11	3	5	5									
85		J11A	3	4	3									
87				4	6									
109														
170		140												
105	60.0	J12	3	6	_									
115		J12A	3		5									
181				4	4									
185									-57-5					
145								(63.00) Red Cl	.AY , Some	Silt				(M-PL)
115	65.0	J13	2	3										
136					3									
138														
175		-												
182		14.4												
195	70.0	J14	3	4										
173					5				<u> </u>				- <del> </del>	
239								(71.00) Gray S	AND, Some	e Gravel /	una Brok	ken Limestone	, Trace Silt	(D-NW)
200														
205		14.5	10											
145	75.0	J15	13	17										
and acce pres the of th	estimate ess to the sented in information	purpos same good fa on repre al at the	ses. I inforn aith. I esent e site.	t is m nation By the s only Inte	nade a n ava e natu y a sn rpolai	availa ilable ire of nall fra tion b	ble so t to the S the exp action o etween	ained for design hat users may have State. It is oloration process, of the total volume data samples may red.	DRILL RIG SOIL & RC REG GEO' ENGINEE DATE APF RESIDENT STRUCTU	OCK DESO TECHNIC ER PROVED FENGINE	CRIPTIO AL L	N H. Daniels		103989C
COL	NTRACT		,	בואחב	TB A C	TOP	Wes	stville Engineering	Route 198	Ramp o		) HO		·B-C-4

SM 282 PSN REGI COUI	250 ON 5		ВО	RNUM _	32		DEPARTM GEOTECHN	IICAL ENGI	RANSPORTA	UREAU		LINE	DH-B-C Baselin 454+09	е	
PIN	<u></u>	<b>-</b>				_	UN	OFFICI	AL LO	G	-	OFFSET			
PRO	JECT S	CAJA	QUAD	A CREE	K EX	PRES	SWAY DELA	WARE PA	RK			SURF. ELEV		32	
SCAL	ED COO	RDIN	ATES	_(N) 1,0	67,4	03.730	(E) 1,063,	686.550	DATUM	NAD8	3	DEPTH TO V	VATER	SEE N	OTE
				DAT		_	07-NOV-19		DATE FI		12-NO\				
CASIN	-		7/8 <b>in</b>				_	HAMMER-C		300	lb	HAMMER FAL		_	in
SAMP	LER O. [	<b>).</b> 2	in	1. [	). 1	3/8	in WT OF	HAMMER-S	AMPLER	300	lb	HAMMER FAL	L-SAMPL	<b>ER</b> 18	in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		LOWS OF AMPLER	in 18	MOIST. CONT. (%)			DESC	RIPTION	N OF SOI	L AND ROCK			
185	75.0 	R1		17				Run #1 D And Brok	rilled from	75'1" T		en Limestone LIMESTONE ,			(D-NW)
	80.0 	R2					(80.08)	And Brok REC. 59	en 98.3%	47		IMESTONE,	Fracture	d	
			• •	,			•	BOTTOM	OF HOLE	AT 85.0	08 ft				
		(	Ground	d elevatio	n is i	the sur	face of the B	ack Rock	Channel.						

Ground elevation is the surface of the Black Rock Channel. Groundwater elevation is the surface of the Black Rock Channel. No recovery for samples 11, 12 and 12A.

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

DRILL RIG OPERATOR
SOIL & ROCK DESCRIPTION H. Daniels
REG GEOTECHNICAL
ENGINEER UNOFFICIAL LOG
DATE APPROVED
RESIDENT ENGINEER
STRUCTURE NAME B.I.N. 103989C
Route 198 Ramp over I-190
SHEET 4 OF 4 HOLE DH-B-C-4

CONTRACT \_\_\_\_\_ CONTRACTOR Westville Engineering

PSN 282 PSN REG COU	<b>ION</b> 5		. B(	ORNI	UM _	33		STATE OF DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX UNOFFICE	GINEERING (PLORATIC	BUREAU ON LOG		LINE STA	DH-B-C-6 Baseline 452+97 288 ft LE	
PRO	JECT S						PRES 54.590	SWAY DELAWARE F (E) 1,063,727.820	PARK <b>DATUM</b>	NAD8	3	SURF. ELEV DEPTH TO V	575.29	
					DAT	E ST	ART _	20-NOV-1956	DATE F	INISH _	26-NO\			
SAMI	NG O. I PLER O. I		7/8 iı iı		1. C			in WT OF HAMMER in WT OF HAMMER		300 300	lb lb	HAMMER FAL		18 in 18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		AMP	/	in 18	MOIST. CONT. (%)		DES	CRIPTION	N OF SOI	L AND ROCK		
8	0.0		7 6	12	10	<u> </u>		(0.00) Black S	AND , Som	e Gravel	, Cinders	And Rubble -	Fill Materia	al (D-NW)
6														
3														
3														
4	5.0	J1	5											
141		01	J	101	200									
19					200			(7.00) Gray S	IT. Some	Sand And	d Organio	Matter, Trace	 e Gravel	(W-NPL)
5								Muck S	eepage Fro	m Black	Rock Ch	annel	o	(** * *** =/
7														
5	10.0	J2	1											
3				2	2									
5														
5														
5														
105	15.0	J3	WOH	WOH										
21					WOH									
16 26														
21														
26	20.0							(19.00) Red CL	AY, Some	Silt				(M-PL)
22		J4	2	3										
28					5									
29														
31										=-		<del></del> _ = -		· — — — — — — ·
39	25.0							(24.00) Red SII	₋Г , Some ( - – – – –	Clay, Trac	e Gravel	I And Fine Sar	nd - – – – – –	(M-PL)
and acc pres	l estimate ess to the sented in g information	purpos same good fa n repre	es. I infornaith. I esent	t is m nation By the s only	nade a n avai e natu / a sn	availa ilable ire of nall fr	ble so to to the S the exp action o	I ained for design that users may have State. It is bloration process, of the total volume	DRILL RIG SOIL & RC REG GEO ENGINER DATE APR	OCK DESO TECHNIC ER	CRIPTIO	N H. Daniels		
	he materia be indicat							data samples may red.	RESIDENT STRUCTU	ENGINE			B.I.N.	103989C
	NTRACT			CONIT	rd A C	TOR	Woo	stville Engineering	Route 198	Ramp o		) HO	LE DH-	

PSN REG COU PIN PRO	ION 5 NTY E	RIE	QUAI	DA C 1)_	V) 1,0	K EX			RANSPORT BINEERING PLORATIC IIAL LO ARK _ DATUM	BUREAU ON LOG I <b>G</b> NAD8		HOLE DH-B-C- LINE Baseline STA 452+97 OFFSET 288 ft L SURF. ELEV. 575.29 DEPTH TO WATER	EFT
CASI	NG O. I		7/8 ir ir	1	DAT     I. [	<b>)</b> . 2	2 3/8	20-NOV-1956 in WT OF HAMMER- in WT OF HAMMER-		300 300	26-NO' lb lb	V-1956 HAMMER FALL-CASING HAMMER FALL-SAMPLEF	18 in R 18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.			VS OF LER	in 18	MOIST. CONT. (%)		DES	CRIPTION	N OF SO	IL AND ROCK	
37	25.0	J5	5	7				(25.00) Red SIL	T , Some C	Clay, Trac	e Grave	I And Fine Sand	(M-PL)
140					42			(27.00) Red CL	AY . Some	Silt			
45								(27.00)	, como	O.I.C			(*** : _)
46	30.0												
44	30.0	J6	8	7									
46					9								
58													
62													
59	35.0	J7	4										
61				4	7								
80								(37.00) Red SIL	T , Some C	Clay, Trac	e Grave	And Fine Sand	(M-PL)
82													
82	40.0	J8	7										
92				8	9								
99													
81													
74	45.0												
57		J9	6	8	11								
65													
76													
79 81	50.0												
The and acc pres	subsurfact estimate ess to the sented in g information	purpos same good fa n repre al at the	ses. I inforn aith. I esents e site.	t is m nation By the s only Inte	nade a n ava e natu / a sn rpolai	availa ilable ire of nall fr tion b	ble so to the So the street the expension of the expensio	ained for design hat users may have State. It is bloration process, of the total volume data samples may red.	DRILL RIG SOIL & RO REG GEO ENGINEE DATE APF RESIDENT STRUCTU Route 198	OCK DESC TECHNIC ER PROVED ENGINE RE NAME	CRIPTIO	N H. Daniels  JNOFFICIAL LOG  B.I.N	103989C
CO	NTRACT		(	CONT	ΓRAC	TOR	Wes	stville Engineering_	SHEET 2		<u> </u>	HOLE DH	-B-C-6

PSN REGI COU PIN	NTY E	RIE	-		UM _		_ _ _	DEPARTMEN GEOTECHNICA SUBSURFAC	IT OF TR AL ENGIN CE EXPL FFICIA	NEERING E LORATIO AL LO	BUREAU N LOG		LINE STA OFFSET	452+97	EFT
	LED COC			_(1		067,2	54.590		7.820	DATUM DATE F	NAD83	3 26-NO\	DEPTH TO	WATER _	
CASII	NG O.		7/8 iı iı	n	1. C	<b>).</b> 2	2 3/8	in WT OF HAI	MMER-CA	ASING	300 300	lb lb	HAMMER FA	ALL-CASING ALL-SAMPLER	18 in R 18 in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S	6	VS OF LER	in 18	MOIST. CONT. (%)			DESC	CRIPTION	OF SOI	L AND ROC	K	
69	50.0	J10	4	4				(50.00) Re	ed SILT	, Some C	lay, Trace	e Grave	And Fine S	and	(M-PL)
88		J10A	3	_	5										
97				5	6										
117															
136	55.0	J11	5												
101				6	7										
105								(57.00) Re	ed CLAY	7, Some	 Silt				<u>-</u>
123															, ,
128															
122	60.0	J12	4	,											
115				4	7										
120	<u> </u>														
152															
155	65.0														
109		J13	3	4											
107					7										
119															
123															
127	70.0	J14	6				L	(70.00) Re		/ Some	Silt Trace	Gravel			<u>(M-PL</u> )
166	<u> </u>	"		13	52			(70.00) Ne	ou ola i	i , Joine (	om, rrace	Jaiavei			(IVI <sup>-</sup> I L)
473															
		R1					<u></u>		un #1 Dr		72'10" T	o 75'1"	LIMESTON	E, Fractured	d
										" 48.1%	8				
T'	75.0	1:: 6						almost for the		DILL DIC	005545	·OP			
and	estimate	purpos	ses. I	t is m	ade a	availa	ble so i	ained for design that users may ha State. It is	ave S		CK DESC	RIPTIO	N H. Danie	els	
pres the	sented in g information	good fa on repre	aith. I esent	By the s only	e natu ⁄ a sn	ıre of nall fr	the exp action o	oloration process of the total volum	e e	EG GEOT ENGINEE ATE APP	R		JNOFFICI.	AL LOG	
of th	ne materia be indicat	al at the	e site.	Inte	rpolai	tion b	etween	data samples m	ay R	ESIDENT	ENGINE			DIN	103989C
CO	NTRACT			CONT	rrac	TOP	We.	stville Engineerir	<u>_</u> F	Route 198	Ramp ov		) H <i>(</i>	B.I.N DLE DH-	

SCAI	JON _ NTY _ JECT _ LED CO	ORDIN	QUA	ADA CI	l) 1,06 <b>DATE</b>	EX 67,2 <b>ST/</b>		GE Sl SWA	DEPART OTECH JBSUR UN Y DEL/ () 1,063 NOV-1		RANSPOR INEERING PLORATIO IAL LC ARK DATUM DATE	TATION BUREA ON LOC OG I <u>NA</u> FINISH	D83		Baselin 452+97 288 ft V. 575.2 WATER	LEFT 29 SEE	NOTE	
CASII	NG C PLER C		7/8 <b>i</b>	in in	I. D. I. D.			in in	_	HAMMER-C		300 300	lb lb	HAMMER FA			18 18	in in
CASING BLOWS/ft	DEPTH ft BELOW SIIRFACE		0	BLOW SAMPI	/S ON LER in	l	MOIST. CONT. (%)							IL AND ROCI	-		. •	
	75.0			1					(75.08)	Red SIL	Γ , Some	Gravel	And Clay				——————————————————————————————————————	<u>-L)</u>
	80.0	R2							<u>(</u> 76.33)	And Brok			To 81'4"	LIMESTONE	, Fracture	d -		
		<u> </u>				,		•		BOTTON	I OF HOL	E AT 8	1.33 ft					
							for sar			1.33 feet.								

DATE	TIME		DEPTH ft		ARTESIAN HEAD HEIGHT	FILLED WITH WATER AT
DATE	I IIVIE	HOLE	CASING	WATER		END OF DAY
26-Nov-56	15:00	81.33	72.00	7.00		

The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.

DRILL RIG OPERATOR
SOIL & ROCK DESCRIPTION H. Daniels
REG GEOTECHNICAL
ENGINEER UNOFFICIAL LOG
DATE APPROVED
RESIDENT ENGINEER
STRUCTURE NAME B.I.N. 103989C
Route 198 Ramp over I-190
SHEET 4 OF 4 HOLE DH-B-C-6

CONTRACT CONTRACTOR Westville Engineering

SM 282 PSN REG	ION _5		ВОГ	RNUM	64		STATE C DEPARTMENT O GEOTECHNICAL E SUBSURFACE I	NGINEERING	BUREAU		HOLE LINE STA	PH-B-F-2 Baseline 455+25	
PIN	_					— —	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ICIAL LO	)G	-	OFFSET	182 ft LEF	T
	JECT _S LED COO					(PRES: 182.060	SWAY DELAWARE (E) 1,063,852.64		NAD83	<u> </u>	SURF. ELEV	. <u>585.87</u> VATER SE	F NOTE
			0	DA	TE ST	ART _	12-NOV-1956	DATE F		13-NO\		<u>-</u>	
CASII	NG O. PLER O.		7/8 in in		D. 2 D.		in WT OF HAMME in WT OF HAMME		300	lb lb	HAMMER FAL		18 in in
								0,			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2 07 11111 2211	
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		OWS OMPLER		MOIST. CONT. (%)					L AND ROCK		
55	0.0	-					(0.00) Case	d Probing - N	o Samples	Taken			
29													
21		-											
18		-											
11	5.0												
10													
6													
9													
14													
25	10.0												
27	L _												
35	<u> </u>												
31		-											
30													
27	15.0	-											
37													
50		-											
50													
39													
35	20.0												
43		-											
48		-											
49													
49		-											
51	25.0												
and acce pres	l estimate ess to the sented in	purpos same good fa	ses. It is informa aith. By	s made ation ava the na	availa ailable ture oi	able so to to the S f the exp	ained for design hat users may have State. It is bloration process, of the total volume	REG GEO	OCK DESC TECHNICA ER	RIPTION	N H. Daniels		
of th		al at the	e site. I	nterpola	ation b	etween	data samples may	DATE APF	ENGINEE				
					01	22.70	•	STRUCTU Boute 198			aquada Creek		103989A
COI	NTRACT		co	ONTRA	CTOR	R Wes	stville Engineering	SHEET 1		or ocajo	HO		-F-2

PSN REGI COU		53 S ERIE	ВО	RNUM	64		DEPARTMENT O GEOTECHNICAL I SUBSURFACE	ENGINEERING	BUREAU ON LOG		LINE STA	PH-B-F-2 Baseline 455+25	
1	_						SWAY DELAWARI	E PARK			SURF. ELEV		
SCA	LED CO	ORDIN	ATES		,067,4 <b>TE ST</b>	182.060 <b>ART</b>	(E) 1,063,852.64 12-NOV-1956	40 DATUM DATE F		<u>}                                    </u>		VATER SE	E NOTE
CASII			7/8 <b>in</b>	I	. D. 2	2 3/8	in WT OF HAMM	ER-CASING	300	lb	HAMMER FAL		18 <b>in</b>
	PLER O.		in		. D.		in WT OF HAMM	ER-SAMPLER		lb	HAMMER FAL	L-SAMPLER	in
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		/   /		MOIST. CONT. (%)					L AND ROCK		
59	25.0 — —						(25.00) Case	ed Probing - No	o Samples	Taken			
55													
66													
77													
95	30.0												
112													
140													
159													
179													
197	35.0												
210													
260													
255		-											
257		-											
260	40.0												
350		-											
323		-											
240		-											
250		-											
200	45.0	_											
216		-											
145		-											
212		-											
193													
205	50.0												
and acce pres the of th	estimate ess to the sented in informati	purpose same good factorial purpose pu	ses. It i informa aith. By esents e site.	is made ation av the na only a s Interpoi	e availa railable ture of small fi ation b	able so to the so to the safether the expression of the expression of the safether	ained for design hat users may have State. It is bloration process, of the total volume data samples may red.	DRILL RIG SOIL & RC REG GEO ENGINEE DATE APF RESIDENT STRUCTU	OCK DESC FECHNICA ER PROVED ENGINEE	RIPTIOI AL U	N H. Daniels	L LOG	103989A
001	NTRACT		~	~NIT!!	OTOF	) \A/=	strilla Engling	Route 198	Ramp ov		aquada Creek HO	(	
	VIRACI		C	ONTRA	CIUH	vves	stville Engineering	SHEET 2	UF 4		пυ	LL-D	-ı <b>-</b> ∠

SM 282 PSN REGI COU PIN			ВС	DRNI	JM _	64		DEPART GEOTECH SUBSUF	MENT O INICAL E RFACE E	NGINEE	SPORT. RING E RATIO	BUREAU N LOG		LINE STA	PH-B-F Baselir 455+28	ne 5		
1	JECT S						PRESS 82.060	SWAY DEL (E) 1,063			TUM	NAD83	· 	SURF. ELE	<b>V.</b> 585.	87	NOTE	<u> </u>
					DATE	E ST	ART _	12-NOV-1	956	DA	ATE F	INISH _	13-NO\	/-1956				
SAME	NG O. PLER O.		7/8 in in		I. D	). 2 ).				R-CASIN R-SAMP		300	lb lb	HAMMER FA			18	in in
σ <b>#</b>	≠≥∺	щ			vs or		LIGIOT											
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.		6	/	n 18 24	MOIST. CONT. (%)				DESC	RIPTION	OF SOI	L AND ROC	K			
210	50.0			12	7 10	24		(50.00)	Case	d Probin	g - No	Samples	Taken					
239																		
200																		
141																		
150	55.0																	
161																		
154																		
150		-																
157																		
172	60.0																	
213		-																
212																		
200		-																
223																		
208	65.0																	
178		_																
183																		
185		-																
200	— — 70.0	1																
194		]																
220																		
222																		
210																		
212	75.0																	
and acce pres the of th	estimate ess to the sented in information	purpos same good fa on repre al at the	ses. It inform aith. E esents e site.	is mation By the only Inter	ade a n avai e natu r a sm rpolat	vaila lable re of nall fr ion b	ble so to to the s the exp action of etween	I ained for de. that users m State. It is coloration pro of the total v data sample red.	ay have cess, olume	SOIL REG ENC DATE RESII STRL	& ROGENTE APPLICATOR DENT	ECHNICA R ROVED ENGINEE RE NAME	ERIPTION AL U	N H. Danie	AL LOG		03989A	
COI	NTRACT		c	CONT	RAC	TOR	_Wes	stville Engin	eering		ET 3 (		o. Odaje	Н(	DLE PI	H-B-I	<del>-</del> -2	

SM 282 PSN REG		2 25 5		B(	ORNI	 UM _	64		STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING BUREAU  HOLE PH-B-F-2 Baseline												
COU			RIE					_	******************		curum ramanan da baran aran aran ar		ION LOG	=	STA		455+25				
PIN									****************	UNOFFICIAL LOG OFFSET 182								•			
1									SWAY E				M NADO		SURF. ELEV			NOTE			
SCAI	LED	,00	RDIN	AIES		DATI		82.060 <b>ART</b>		,063,852 V-1956		_ DATU	M <u>nad8</u> E <b>finish</b>	<u>ა                                    </u>	<b>DEPTH TO</b> V V-1956	WAIER	SEE	NOTE	—		
CASII	NG	O. I	<b>D</b> . 2	7/8 ir		I. C		_		T OF HA			300	lb	HAMMER FA	LL-CASING	G	18	in		
SAME	PLER	O. I	D.	ir	n	I. C	).		in W	T OF HA	MMER-	SAMPLER	l	lb	HAMMER FA	LL-SAMPL	.ER		in		
<b>π</b> ≢	<b>#</b> ~	Щ	ш	E	BLOV	VS OI	N														
SINC WS/	₽Ş	FAC	₽. 0.			LER		MOIST.				DE	SCRIPTION	I OF SOL	L AND ROCK	5					
CASING BLOWS/ft	DEPTH ft BELOW	Ü	SAMPLE NO.	0 /	6 /	12	18 /	(%)				52	001111 1101	. 0. 00.	L AND HOOF	•					
				6	12	18	<u></u>														
206	75.0	0							(75	.00) Ca	ased F	Probing - I	No Sample	s Taken							
226																					
223																					
220																					
220	_	_																			
229																					
262	80.0	n																			
202	- 50.	_																			
271	_																				
251																					
201																					
276	_	_																			
297																					
		_																			
314	85.0	U																			
375																					
000																					
800									L												
	_		R1						(87		un #1 nd Bro		om 87'5" To	o 92'5" L	IMESTONE	, Fracture	ed				
									REC. 53.5" 89.2% 41												
	90.0	0																			
	_	_																			
			•						•	В	отто	M OF HO	LE AT 92.4	12 ft							
			٦									П	4 P.T.E	01441	FU	WIT:					
				D	ATE		TIM	E		DEPTI			ARTE: HEAD H		FILLED V WATER						
									HOLE	CASI	NG '	WATER	ABOVE G								
				13-1	Nov-5	56	15:0	00	92.42	86.5	50	15.00									
Tho	subsi	ırfo	ce info	rmetic	an ch	OWD F	nere "	vae oh	tained fo	r decian		DRII I PI		TOP.							
The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have												DRILL RIG OPERATOR SOIL & ROCK DESCRIPTION H. Daniels									
access to the same information available to the State. It is presented in good faith. By the nature of the exploration process,											,	<b>REG GE</b>	OTECHNIC	AL			200000000000000000000000000000000000000				
the	inform	atio	n repr	esent	s only	a sn	nall fr	action (	of the tot	al volum	ie	ENGINE		L	<u> JNOFFICI</u>	AL LOG	1				
of th	ne mat	eria	at the	e site.	Inte	rpolat	ion b	etweer	data sa	mples m	ay		PPROVED NT ENGINE	ER							
not	ve ind	ıcat	ive of t	ırıe ac	iual r	nateri	aı en	counte	rea.				URE NAME			B.I.N.	1	03989A			
									=					ver Scaja	aquada Cree	k					
CO	ONTRACT CONTRACTOR We								stville Er	ngıneerii	ng_	SHEET 4	4 OF 4		нС	LE PI	⊒-R-I	2			

PSN REG COU PIN PRO	ION 5 NTY E	RIE	QUAI	DA C		K EX		DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX UNOFFIC SWAY DELAWARE F	GINEERING (PLORATIC CIAL LC	BUREAU ON LOG OG	3	LINE								
CASI			7/8 <b>i</b> i		DATI	E ST	ART _	12-NOV-1956 in WT OF HAMMER	DATE F	FINISH _	15-NO'			18 in						
	PLER O.		i		I. E		3/8	in WT OF HAMMER	-SAMPLER	300	lb	HAMMER FALI	L-SAMPLER	18 in						
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S	AMP	/	in 18	MOIST. CONT. (%)		DESCRIPTION OF SOIL AND ROCK  (0.00) Black SAND , Some Gravel, Cinders And Rubble, Trace Silt											
23	0.0								AND , Som ay - Fill Mat		Cinders	S And Rubble, <sup>-</sup>	Γrace Silt	(D-LW)						
35																				
16																				
13																				
15	5.0	J1	5																	
31		J 1	]	7	7															
20					,															
20																				
23																				
30	10.0	J2	4																	
20		J2A	5	5				(D-PV)												
31		027						(11.00) Ned Sil	i , Some (			(D-1 <b>VV</b> )								
32									T Some (											
35								(13.00) Hed Sil	i , doine (	Jiay				(M-PL)						
37	15.0	J3	2																	
36			_	3	6															
39		1																		
36																				
37																				
40	20.0	J4	2																	
41				8	5															
53																				
47																				
41																				
52	25.0						<u></u>													
and acc pres the of th	l estimate ess to the sented in g information	purpos same good fa on repre al at the	ses. I inforn aith. I esent e site.	t is m nation By the s only Inte	nade a n avai e natu / a sn rpolat	availa lable ire of nall fr ion b	ble so to the So to the So the explantion of the end of		DRILL RIG OPERATOR  SOIL & ROCK DESCRIPTION H. Daniels  REG GEOTECHNICAL ENGINEER UNOFFICIAL LOG  DATE APPROVED RESIDENT ENGINEER STRUCTURE NAME B.I.N. 103989A Route 198 Ramp over Scajaquada Creek											
COI	NTRACT		(	CONT	ΓRAC	TOR	_Wes	stville Engineering	SHEET 1		1	HOl	_E DH-B	8- <b>F</b> -4						

CASING O. D. 2 7/8 in I. D. 2 3/8 in WT OF HAMMER-CASING 300 Ib HAMMER FAL SAMPLER O. D. 2 in I. D. 1 3/8 in WT OF HAMMER-SAMPLER 300 Ib HAMMER FAL SAMPLER in USE SAMPLER in CONT. (%)  BLOWS ON SAMPLER in CONT. (%)  DESCRIPTION OF SOIL AND ROCK  25.0 J5 3 5 5 (25.00) Red SILT, Some Clay  (25.00) Red SILT, Some Clay	DH-B-F-4  Baseline  454+06  120 ft LEFT  587.05  /ATER SEE NOTE
25.0 J5 3 5 5 (25.00) Red SILT , Some Clay  51	
25.0 J5 3 5 49	
49       51       51	(M-PL)
51       51	
51	
1 33 1 00.0 1 1 1 1 1 1	
55 J6 2 4 55 55 6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6	
53 5	
62 62	
65	
73 35.0	
46 J J7 2 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
563	
73	
70	
72 40.0 J8 3 (40.00) Red SILT, Some Clay, Trace Gravel And Fine Sar	nd (M-PL)
72 4 7 (40.00) Red SILT, Some Clay, Trace Graver And Fine San	u (IVI-FL)
116	
121	
109	
112 45.0 J9 4 J9 A	
103 6 7	
137	
148	
150	
127 50.0	
The subsurface information shown here was obtained for design and estimate purposes. It is made available so that users may have access to the same information available to the State. It is presented in good faith. By the nature of the exploration process, the information represents only a small fraction of the total volume of the material at the site. Interpolation between data samples may not be indicative of the actual material encountered.  DATE APPROVED RESIDENT ENGINEER STRUCTURE NAME ROUTE 198 Ramp over Scajaquada Creek SHEET 2 OF 4	<b>L LOG B.I.N.</b> 103989A

PSN REG COU	ION 5		В	ORNI	UM _	65		DEPARTMENT OF GEOTECHNICAL EN SUBSURFACE EX	GINEERING (PLORATIO	TATION BUREAU ON LOG		HOLE DH-B-F-4  LINE Baseline  STA 454+06  OFFSET 120 ft   FET							
PIN PRO	JECT S	CAJA	QUAI	DA C	REE	K EX	_ PRESS	<b>UNOFFIC</b> SWAY DELAWARE F		,G		OFFSET SURF. ELEV	<u>120 ft LEF</u> . 587.05	<u>-T</u>					
1	LED COC			1)_	N) 1,0	67,3	41.450	(E) 1,063,913.330	DATUM			DEPTH TO W		EE NOTE					
CASII	NG O.	<b>D.</b> 27	7/8 ir		DATI	= <b>5</b> 17 ). 2	_	<u> 12-NOV-1956</u> in <b>WT OF HAMMER</b>	DATE I CASING	300	15-NO\ <b>lb</b>	V-1956 HAMMER FAL	L-CASING	18 <b>in</b>					
SAME	PLER O.	<b>D.</b> 2	ir	1	I. D	). 1	3/8	in WT OF HAMMER	-SAMPLER	300	lb	HAMMER FAL	L-SAMPLER	18 <b>in</b>					
CASING BLOWS/ft	DEPTH ft BELOW SURFACE	SAMPLE NO.	S		VS OI LER i		MOIST. CONT. (%)												
- ш	50.0	J10	<b>6</b>	12	18	24		(50.00) Red SII	T Some (	Clay Trace	o Gravo	I And Fine Sar	nd	(M-PL)					
141	50.0	310	4	5				(50.00) Ned Sii	ı , Some (	olay, mad	e Grave	i And Fine Sai	iu	(IVI-FL)					
183					7														
173																			
187		-																	
178	55.0	J11	3																
165				4	8														
260																			
323																			
301																			
326	60.0																		
221		J12	5	8															
270					10														
290																			
270		_																	
271	65.0	J13	4																
250				5	7														
321																			
320																			
375								(68.00) Red SII	T , Some (	Clay				(M-PL)					
372	70.0																		
		J14	4	5															
333				5															
409																			
492																			
529	<u> </u>	-																	
445	75.0																		
and acce pres the of th	estimate ess to the sented in s informatione materia	purpos same good fa on repre al at the	ses. I inforn aith. I esents e site.	t is m nation By the s only Inte	nade a n avai e natu ⁄ a sm rpolat	availa lable ire of nall fr ion b	ble so to to the s the exp action o etween	ained for design that users may have State. It is bloration process, of the total volume data samples may	DRILL RIG OPERATOR SOIL & ROCK DESCRIPTION H. Daniels REG GEOTECHNICAL ENGINEER UNOFFICIAL LOG DATE APPROVED										
not	be indicat	tive of t	ne ac	tual r	materi	al en	counte	red.	RESIDEN	IRE NAME				103989A					
COI	NTRACT		(	CONT	ΓRAC	TOR	_Wes	stville Engineering_	Route 19		ver Scaj	aquada Creek HO		-F-4					

SM 282 PSN REG COU PIN	ION	253 _5	3 RIE	_ B(	ORN	UM _	65		GEOT SUB:	STATE OF NEW YORK DEPARTMENT OF TRANSPORTATION GEOTECHNICAL ENGINEERING BUREAU SUBSURFACE EXPLORATION LOG UNOFFICIAL LOG  STA  454+06 OFFSET 120 ft LEFT									-		
PROJECT SCAJAQUADA CREEK EXPRESSWAY DELAWARE P.													K			SUR	F. ELE\	<b>/.</b> _ 587	.05		_
SCALED COORDINATES (N) 1,067,341.450 (E) 1,063,913.33  DATE START 12-NOV-1956													DATUN DATE	I <u>NAD</u> FINISH		<b>DEP</b> 0V-195		WATER	SEI	E NOTE	—
CASING O. D. 27/8 in I. D. 23/8 in WT OF HAMMI SAMPLER O. D. 2 in I. D. 13/8 in WT OF HAMMI														300 300	lb lb			LL-CASIN LL-SAMP		18 18	in in
						VS OI					.,	0,				117 11011	J				
CASING BLOWS/ft	DEPTH ft BELOW	3FAC	SAMPLE NO.	_		LER	-	MOIST.		DESCRIPTION OF SOIL AND ROCK											
2,9		SUF	SA_	0 6	6	/	18 24	(%)													
004	75.	0	J15	2	4				(75	.00)	Red S	SILT ,	Some	Clay						(M-PI	L)
294																					
317		$\dashv$																			
340	$\vdash$	-							(78.00) Gray SILT , Some Gravel And Sand, Trace Clay (M-L												-L)
381	_	$\perp$																			,
369	80.	0	14.0	10				L													
329			J16	18	14																
314						13															
300																					
									<sub>(83</sub>	.00)					y, Trace					(M-NF	ŽL)
336		$\neg$							Gravel Consists Largely Of Broken Limestone												
371	85.	0	J17	9				<u> </u>	_												
483		_			5	5															
342		=	J18	5	13																
482			R1					<u> </u>	$-\frac{1}{(87)}$	7.75)	Run#	t Dril	led froi	n 87'9"	To 92'9"	LIMES	TONE	, Fractur			
										·	And B REC.		า 76.7%	6 23							
	90.	0																			
	•	•		•					•		BOTT	ОМ С	OF HOI	E AT 92	2.75 ft						
				ח	ATE		TIM	IF -		DEF	PTH ft				ESIAN HEIGHT		LLED V VATER				
	DATE TIME I							HOLE		SING	+			GROUNI		ND OF					
				15-1	Nov-	56	15:0	00	92.75	87	7.75	15	5.00								
The	subsi	urfar	ce info	rmatio	on sh	own ł	nere i	was ohi	tained fo	r desi	an	DF	RILL RIG	G OPERA	ATOR						
and	l estim	ate j	ourpos	ses. I	t is m	ade a	availa	ble so	that user State. It	rs may		sc	IL & R	OCK DES	SCRIPTIO	ON <u>H</u>	Daniel	s			_
pres	sented	in g	good fa	aith. E	By the	e natu	ire of	the exp	ploration of the tot	proce		E	NGINE			UNOF	FICIA	AL LO	3	÷	
of th	he mai	teria	l at the	e site.	Inte	rpolat	ion b		n data sa					PROVED T ENGIN			-				
1100	DE IIIO	iicali	v <del>e</del> oi l	n <del>e</del> ac	ıudi l	nateri	iai en	courte	ieu.			ST	RUCTU	JRE NAM	1E	ologe: = -	a C==:	B.I.N.	1	03989A	_
CONTRACT CONTRACTOR Westville										ngine	ering			OF 4	over Sca	ıjayua0			H-B-	F-4	