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March 26, 2019

Mr. Aaron Fischer
Project Manager-Remedial Bureau B
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7016
Sent via email aaron.fischer@dec.ny.gov

Re: 2018 SRI Report
Ebenezer Plaza 2-Site C224241
68-78 New Lots Avenue, Brooklyn, NY 11212

Chazen Project # 20918.07

Dear Mr. Fischer:

At the request of NYSDEC, a second Supplemental Remedial Investigation (SRI) was conducted in December 2018 for BCP Site C224241. This SRI was performed by Chazen to collect supplemental data that requested by NYSDEC's after review of the January 2017 RIR and the May 2017 Supplemental RI. The supplemental data was needed to complete the characterization and delineation of impacts and eliminate data gaps so that the final Remedial Action Work Plan for the Site can be completed, approved, and implemented. The investigations were completed in accordance with the NYSDEC approved 2018 SRI Work Plan prepared by Chazen dated September 11, 2018.

The goals of the field investigations were to complete the following:

- Collect additional soil sampling data to complete the vertical delineation of impacts, evaluating whether concentrations of SVOCs and regulated metals exceeding RRSCOs are restricted to the urban fill or extend below this interface;
- Delineate the limits of impacts beneath the water table exceeding PGWSCOs in the vicinity of the hotspot identified at SB-43/MW-18;
- Collect data to assess water quality near the southern (downgradient) property boundary, to evaluate potential for off-site migration of site related impacts; and,
- Collect soil vapor data, to assess potential need for vapor barrier system (VBS) or vapor mitigation system (VMS) in new building construction plans.

In conformance with the approved work plan, a total of twelve soil borings, two groundwater sampling points, and six soil vapor probe points were installed. A total of twenty soil samples, two groundwater samples, six soil vapor samples, one ambient air sample, and necessary quality control samples were collected and submitted for laboratory analysis in accordance with the approved Sampling and Analysis Plan. A Sample Location Map

New York: Hudson Valley • Capital District • North Country • Westchester
Tennessee: Nashville • Chattanooga **Oregon:** Portland

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for samples collected during this investigation is included as **Figure 1a**. A Sample Location Map for all samples collected on-site since 2009 is included as **Figure 1b**.

SOIL BORINGS

Twelve soil borings (SB-101 to SB-112) were installed on September 6 and 7, 2019. The borings were installed with a Geoprobe to an average depth of 20 feet below the current ground surface. The borings were installed at the predetermined locations included on Figure 6 of the approved Work Plan. Following the procedures specified in the work plan. Details, observations, and sample intervals, for each boring are included in the table below. Hand logs prepared in the field for each boring are attached.

BORING	Date	Depth (ft bgs)	UF** (base bgs)	WT*** (ft bgs)	Sample(s) Interval	Evidence of Impact
SB-101	6-Nov	17*	5-7	15	13-15	none
SB-102	6-Nov	20	9-11	15	13-15	none
SB-103	6-Nov	20	5.5-7.5	16	14-16	none
SB-104	6-Nov	20	5.5-8	17	15-17	none
SB-105	7-Nov	20	5-8	16	0-4 8-12	O, PID ~ 30 none
SB-106	7-Nov	20	6-8	16	2-4 8.5-10.5	V, O, PID ~ 45 none
SB-107	6-Nov	20	6-8	16	14-16	none
SB-108	7-Nov	20	5-8	16	14-16	none
SB-109	7-Nov	24	5.5-7.5	16	14-16 17-18 22-24	none V, O, PID ~ 250 none
SB-110	7-Nov	28	6-8	16	14-16 17-19 24-28	none V, O, PID ~ 500 none
SB-111	7-Nov	24	6.5-8	16	14-16 17-19 22-24	none PID ~ 1000 O, PID < 5
SB-112	6-Nov	20	5.5-7.5	16	14-16	none

* Sand binding in dual core; could not be cleared, coring ended at 17 feet, boring advanced to 20 feet with blind probe. Temporary monitoring wells were set in SB-101 and SB-102.

** The exact depth of the urban fill/native soil horizon could not be positively determined due to limited recovery of the very loose soils. The estimated average thickness of the urban fill is estimated at 7 feet below current grade. The base of the fill is at an approximate elevation of 14 feet ASML.

*** The water table is estimated to be at an elevation of 4-5 feet AMSL.

In summary, no impacts beyond debris typical of urban fill were observed in seven of the twelve soil borings. All borings extended 2 to 12 feet below the water table. Visual (V), Olfactory (O), and/or elevated PID measurements were noted in five borings, as follows:

SB-105. A faint odor, grey staining, and PID measurements > 30 ppm were observed in the first few feet of boring SB-105. The soils beneath this interval including below the water table exhibited no evidence of impacts from 4 to 20 feet below grade.

SB-106. In boring SB-06, light grey staining, a “petroleum-like” odor and PID measurements of 40 ppm were noted in first few feet of the boring only. Below four feet, the urban fill soils and deeper native sediment extending below the water table appeared to be non-impacted aside from typical debris.

SB-109, SB-110, and SB-111. In borings SB-109, SB-110, and SB-111, no impacts were noted in soils above the water table, but a layer of impacted soil extending from the water table to approximately 3 feet beneath the water table was observed with grey-staining a strong odor and relatively high PID measurements.

From these twelve borings, a total of 20 soil samples were collected and submitted for laboratory analysis of TCL-VOCs, ASP TCL-SVOCSS, and TAL metals with full quality control sampling and Category B data deliverables.

GROUNDWATER SAMPLING

All pre-existing site groundwater did not survive the demolition phase or could not be located beneath the 8-12" of bric-a-brac (coarse rubble and brick debris from crushed building block) used to cover the site and prevent excessive dust generation while the site remains idle and unmonitored. As noted in the WP, groundwater sampling was therefore limited to two newly installed wells installed is soil boring locations during the supplemental RI, near the downgradient property boundary.

Soil borings SB-101 and SB-102 were converted to groundwater monitoring wells by constructing 1.25 inch PVC wells with a gravity placed sand filter packs and bentonite seals inside protective drive casing of the dual tube core sampler, as the sampling casing was slowly withdrawn. The new wells were capped and sealed at the surface and allowed to rest undisturbed for one week after installation.

On September 20, 2018, the wells were developed briefly by purging, and then sampled. Approximately 10 well volumes (~2.5 gallons each) were withdrawn from each well using a peristaltic pump. The wells were surged after each 3 well volumes to help clear silt/sediment from the screen and filter pack and to improve communication with the formation. Water quality parameters were measured and recorded for each well volume removed with a multifunctional water quality meter. Development/purge logs for these wells are attached.

The wells were sampled immediately after purging. Samples were collected in laboratory-supplied glass ware, placed on ice, and transported by courier to the environmental laboratory. The samples were submitted for analysis of TCL-VOCs, TCL-SVOCs, TAL-metals, PFCs, and 1,4-dioxane.

SOIL VAPOR SAMPLING

Six soil vapor probe points were installed on September 7, 2019 using the Geoprobe. A 1.25-inch diameter blind probe fitted with a sacrificial point was driven to seven feet below grade, equivalent to approximately 1 to 1.5 feet below the urban-fill/native soil horizon and below the future basement floor elevation. A one-foot length of 1-inch diameter slotted PVC, attached to sufficient solid riser, was placed in each vapor probe annulus, extending each probe to 12 inches above grade. The screened segment was placed in the pilot hole and fine 00 sugar sand gravity fed into the annulus to approximately 6 inches above the top of each screen. The remainder of the boring annulus around the blind casing was filled with bentonite to surface and hydrated at the surface to form a seal. The probes were capped with a friction cap, and identified by bright orange traffic cone with lathe stake/flags inserted in the cone to alert site traffic to the presence of the probe points.

On September 20, Chazen returned to EP-2 to collect soil vapor samples and complete groundwater sampling. Each vapor probe point was helium tracer tested and determined to be sealed. Vapor samples were then collected with laboratory-supplied certified clean summa cannisters by connecting the cannister to the probe points and opening the regulator valve on the cannisters. Sample collection was approximately 8 hours for each location. An outdoor air sample (OA-1) was collected at the upgradient property boundary on the same day. Copies of the field sampling logs are attached.

SAMPLE RESULTS

The following sections summarize the data by media type and the analyses performed. The complete results tables as received from the lab are attached along with the laboratory analytical data reports. Data Usability Summary Reports from an independent third-party chemist are also attached and discussed in the next section.

SOIL SAMPLE RESULTS

VOCs

Trace concentrations of VOCs (< 50 µg/kg) were reported in all 20 soil samples collected during this event. However, elevated concentrations that exceeded the UUSCO were reported only the five samples noted to exhibit olfactory impact indicators. The reported exceedances were all gasoline related compounds. A table of the reported results and comparison to the UUSCOs and RRSCOs is included below. Only compounds with a reported exceedance in one or more of the samples are included. These results are included on **Figure 2**. Complete data tables for all results are attached.

Compound	UUSCO	RRSCO	Sample				
			SB-105 (0-4)	SB-106 (2-4)	SB-109 (17-18)	SB-110 (17-19)	SB-111 (17-19)
Benzene	0.06	2.9	0.0655				
Ethyl Benzene	1	41	3.7	1.2		44.2	16.7
Total Xylenes	0.26	100	1.98	3.3		36.4	3.7
n-propylbenzene	3.9	100			7.7	27.1	30.7
1,3,5-Trimethylbenzene	8.4	52				46.3	
1,2,4-Trimethylbenzene	3.6	52	8.2	11.7		173	
n-Butylbenzene	12	NL				18.5	13.9

Results in mg/kg, Results in bold exceed RRSCO; NL Not Listed

SVOCS

Phenol was reported in all 20 soil samples at concentrations ranging from 0.3 to 0.41 mg/kg compared to the UUSCO of 0.33 mg/kg.

SVOCS were reported in the upper four feet of urban fill collected from SB-05 and SB-06, at concentrations that exceed the USSCOs and the RRSCOs.

Excluding phenol, no other exceedances of UUSCOs were reported in the 18 subsurface soil samples except Naphthalene. Naphthalene was reported in one sample, SB-110 (17-19), at 34 mg/kg compared to the UUSCO of 10 mg/kg.

METALS

The concentrations of regulated metals reported in all samples except the upper few feet in SB-105 and SB-106 were less than their applicable UUSCOs.

Elevated concentrations of several regulated metals exceeding the USSCOs were reported in the near surface soil samples collected at SB-105 and SB-06. Arsenic, barium, cadmium, copper, lead were reported in both samples at concentrations exceeding the RRSCOs. The reported concentrations of arsenic and lead also exceeded the industrial use SCOs. Samples of the native soils were also collected at both of these locations from the first interval below the urban fill/native soil interface and no elevated concentrations of metals were reported in the native soils.

A summary of the exceedances and a comparison to their applicable standards is included in the table below.

Sample ID	UUSCO	RRSCO	IUSCO	SB-105		SB-106	
				(0-4)	mg/kg	(2-4)	mg/kg
				R	Q	R	Q
Arsenic	13	16	16	26.5		29.1	
Barium	350	400	10000	973		1300	
Cadmium	2.5	4.3	60	14.8		21.9	
Copper	50	270	10000	971		458	
Lead	63	400	3900	2280		4760	
Mercury	0.18	0.81	5.7	0.372		0.549	
Nickel	30	310	10000	69.8		95.6	
Zinc	109	10000	10000	2510	D	3830	D

Bold exceeds UUSCSO, Yellow-shaded exceeds RRSCO, Italic exceeds IUSCO.

The results are included on **Figure 2**.

GROUNDWATER SAMPLE RESULTS

VOCs: No volatile organic compounds were detected in the groundwater samples collected from MW-101 or MW-102 except for Tetrachloroethene (PCE). PCE was reported in wells MW-101 or MW-102 at trace concentrations of 1.3 µg/l and 0.84 µg/l, respectively. These concentrations are less than the Ambient Water Quality Standard of 5 µg/l for PCE.

SVOCs: No SVOCs (including 1,4-Dioxane) were reported in the groundwater samples except for Phenol in the sample collected from MW-101. Phenol was reported in the sample from MW-101 at an estimated concentration of 2.7 µg/l.

Metals: Elevated concentrations of iron, magnesium, and manganese were reported in both MW-101 and MW-102 at concentrations that exceed ambient water quality standards. A summary of the exceedances is included in table below.

COMPOUND	AWQS	MW-101		MW-102		FD-02 (MW-102)	
		R	Q	R	Q	R	Q
Iron	300	42.1	J	353		732	
Magnesium	35000	15100		32900		37000	
Manganese	300	2030		363		402	

Results (R) in µg/l.

Bold values exceed applicable standard.

The historical groundwater sampling results and the recently collected data are included on **Figure 3**.

SOIL VAPOR

Twenty-three VOCs were reported in one or more of the soil vapor samples. Thirteen of these compounds were also reported in the background ambient air sample upgradient from the Site.

Three of the remaining ten compounds, Carbon Tetrachloride, Methylene Chloride, and PCE are listed on a NYSDOH Soil Vapor/Indoor Air Matrix. Of these three compounds, only PCE exceeds the firsts tier Action Threshold of 100 µg/M³ set for that compound.

A hit summary is included in table below. The results for compounds listed on Matrix A and Matrix B of NYSDOH SVI Guidance that were detected in one or more samples are included in the summary table below.

For “other” compounds (compound not listed on one of the guidance matricies), only results that exceeded 5 µg/M³ are included.

COMPOUND	NYSDOH Matrix µg/M³	SV-01		SV-02		SV-03		SV-04		SV-05		SV-06		OA-01	
		R	Q	R	Q	R	Q	R	Q	R	Q	R		R	Q
Carbon Tetrachloride	A < 6	0.5		0.31		0.38		0.38		0.25		0.31		0.5	
Trichloroethene	A < 6	0.38		1.34		0.43		0.16	U	0.16	U	0.16	U	0.16	U
Methylene Chloride	B < 100	9.38		5.56		6.95		12.8		2.92		19.4		14.6	
Tetrachloroethene	B < 100	45.4		0.95		111	D	111	D	31.9		1.42		0.41	
1,1,1-Trichloroethane	B < 100	0.65		0.76		0.55		0.16	U	0.71		0.16	U	0.16	U
TOTAL MATRIX VOCs		56.31		8.92		119.31		124.18		35.78		21.13		15.51	
Other VOCs	OSHA/NIOSH mg/M³														
CFC-113	1000													0.77	J
2-Butanone	596	142	D	86.4	D	258	D	214	D	205	D	146	D	0.83	J
Acetone	1000	50.1	D	51.6	D	81	D	81.7	D	54.2	D	69.1	D	9.5	
Chloromethane	10	0.64	J					8.67				0.76	J	1.01	J
Dichlorodifluoromethane	1000	1.53	J	1.34	J	1.68	J	4.9		8.41		1.09	J	2.72	
Hexane	50	3.28						5.29		2.15		9.16		6.34	
tert-Butyl alcohol	100			5.15											
Tetrahydrofuran	50	29.5		22.7		16.2		16.5		13.9		23			
Toluene	100	21.5		7.54		16.2		19.2		8.67		13.9		2.6	
Trichlorofluoromethane	5,600	7.31		78.1		37.1		152	D	184	D	3.37		2.02	J

Lowest standard for OSHA (PEL) or NIOSH(REL) used for comparison only.

Bold Results greater than NYSDOH Matrix action threshold

U = ND. ND Results for compounds include in a guidance matrix included.

DATA USABILITY SUMMARY REPORTS

Validation of all analytical results was provided by Laboratory Data Validators, Inc. (LDV). A copy of their Data Usability Summary Report is attached. The EDDs as modified by LDV have been uploaded to NSYDECs EquiS website.

As summarized in the DUSRs, all quality control methods and procedures used for collection, handling, documentation, and shipping of the samples met ASP standards and criteria.

Minor adjustments to data qualifiers (such as estimated compounds altered to non-detects, reporting limit increased due to interferences, etc.) were necessary due to quality control issues related to the laboratory with numerous reported estimated trace concentrations of compounds changed to non-detect. However, none of the modifications/adjustments appear to significantly affect the significant results of identified compounds of concern noted in the hit summaries except for the reported presence of phenols. The low-level concentrations of phenol that slightly exceeded applicable SCOs as reported in the soil samples were considered non-detects.

SYNTHESIS

SOILS

No evidence of VOCs exceeding the UUSCOs were detected in the soils above the water table except in the near surface soils at SB-05 and SB-06 (upper 4 feet) located in the former open-air courtyard behind the auto-shop on Hegemen Street. The impacts at these locations do not appear to have penetrated the urban fill-native soil interface suggesting that impacts in this area are the result of small surface spills from vehicles staged in this area.

Based field observations and analytical results, soil impacts from VOCs appear to be limited to an estimated area of 2,500 ft² located in the vicinity of SB-110 extending from the water table to approximately 3 feet below the water table. This area conforms to the approximate limits of impacts in the vicinity of SB-43/MW-18 as previously delineated and reported in 2012 Phase II. An estimated 250 to 300 yd³ of soil in this area has impacts that exceed the PGWSCOs. The approximate limits of this area of impact are included on Figure 2.

The results for SVOCs and Metals in soil samples confirms the previously reported conclusions that compounds of concern exceeding the RRSCOs are contained in the urban fill or are found at the water table in the vicinity of S-109, SB-110 and SB-111. No significant impacts from SVOCs or metals were otherwise observed in native soil samples collected from the interval immediately below the interface with the urban fill.

GROUNDWATER

No volatile or semi-volatile compounds were reported in the two downgradient most monitoring wells located along the southern site boundary at concentrations that exceed ambient water quality standards. Significant impacts to the groundwater were previously reported in three wells, MW-18, MW-19, and MW-20 with over 5,000 µg/l of total VOCs. These three wells are located within the defined limits of the soil impacts in the area around SB-110. No groundwater impacts from this area were detected at the site perimeter in MW-101 or MW-102.

A peroxide injection program was performed in this area in 2011 and the results reported to NYSDEC in April 2012. The treatment appears to have successfully reduced the impacts to the soil and groundwater although not fully achieving applicable standards. At that time, the NYSDEC spill group determined that no additional remediation would be requested in this area since the downgradient screening level results from grab groundwater samples did not indicate that the residual plume was migrating off-site.

The results for the recent sampling event of the newly installed groundwater monitoring wells along the downgradient property boundary confirm an absence of significant impacts to groundwater at the property boundary and thus that any residual site impacts do not represent potential threats to off-site migration.

SOIL VAPOR

PERC was identified in all six soil vapor samples. Concentrations greater than the action threshold of 100 µg/M³ were reported in two of these six samples, each reported at 111 µg/M³ suggesting the possibility that an indoor air quality issue could develop over time if a structure were constructed without vapor mitigation measures. The absence of an identified source for the on-site vapors suggests that any vapor concentrations in future sub-slab soils (once new floor slabs are constructed) are not likely to increase over time.

2-Butanone was identified in all six soil vapor samples ranging from 86.4 to 258 µg/M³. There is no NYSDOH SVI action threshold or indoor air quality guidance value for MEK. A comparison of these concentrations to other regulatory guidance (NIOSH and OSHA Standards) indicates that the maximum reported concentration in the soil vapor is more than an order of magnitude greater available health advisory concentration of 590 mg/M³ (OSHA PEL, NIOSH REL).

CONCLUSIONS

Urban fill soils across the site were confirmed during this supplemental RI to be impacted with variable quantities of SOVCs and heavy metals at concentrations that exceed the RRSCOs. The impacts from these compounds is endemic to urban fill, particularly where historical storage/staging of vehicles has occurred. The supplemental RI identified no evidence of any otherwise hazardous conditions, hazardous waste, or waste disposal beyond historical urban-filling.

The supplemental RI confirmed an absence of impacts to native soils above the water table (at approximately 16 feet below grade) and beneath the urban fill. It is still considered likely that one or more previously-undiscovered USTs may be encountered during Site redevelopment and that one or more isolated “hotspots” associated with the USTs may be discovered. These would have been installed within the urban fill. A contingency is included in the RAWP to address this potential as excavation advances.

An estimated 250 cubic yards of impacted soils below the water table extending from approximately 16 to 18 feet below grade with concentrations of VOCs that exceed PGWSCOs remain on-site in the vicinity of SB-110 and MW-18. These soils could be excavated or treated in-place if necessary. However, remediation of these soils does not appear to be necessary.

Per 6 NYCRR part 375 (a)(1): The protection of groundwater soil cleanup objectives may not be applicable where:

- (ii) an environmental easement will be put in place which provides for a groundwater use restriction on the site as set forth in paragraph 375-1.8(h)(2);
- (iii) the Department determines that contaminated groundwater at the site: (a) is not migrating, or likely to migrate, off-site;

As the site is located in NYC where private potable water supply wells are prohibited, and an environmental easement prohibiting on-site groundwater use will be placed on the property, and there is no evidence of off-site migration of impacted soils, PGWs do not appear to apply to the site. A Track 2 clean-up should be attainable without mitigation of the soils below the water table.

The soil vapor data appears confirm that placement of a simple vapor barrier system beneath new building(s) that was included in the Draft RAWP submitted February 2017 will be sufficiently protective of future indoor air quality. The data indicate that an active sub-slab depressurization system is not warranted for the site.

The supplemental data combined with all of the previously reported data for the site appears sufficient to fully characterize the nature and extent of impacts with the possible exception of potential hotspots associated with undocumented and undiscovered historical USTs that may remain. These can readily be accommodated with the RAWP.

RECOMENDATIONS

The existing Draft RAWP dated February 2017 should be modified to include an updated synopsis of all data included in the RI and SRIs for the site, and changes to the Final Site redevelopment/construction plans since the Draft RAWP was prepared.

The phasing of Site work may be modified to include a GPR or magnetic survey of the site. Remote sensing geophysical techniques could be used to identify and locate potential in-place USTs. This could be done after the removal of the recently placed bric-a-brac but before bulk excavation of the urban fill is performed.

A detailed contingency for the removal and assessment of intact USTs discovered by the geophysical survey(s) and post-removal sampling requirements added to the RAWP.

The RAWP should be completed and submitted to NYSDEC within 30-40 days of acknowledgement and approval of this SRI Report.

ACKNOWLEDGEMENT

We would appreciate your timely review of the supplemental information included in this report. Please contact me if you have any questions or concerns or require additional information. As always, you can contact me directly at kmcgrath@chazenccompanies.com. Please include Peter Procida on any e-mails at pprocida@procidacompanies.com and Dean Sommers, Esq at dsommer@youngsommer.com

Sincerely,



Kevin P. McGrath, PG, CPG
Senior Scientist

Initials/enc.

cc:



FIGURES

Legend

- 2018 Groundwater Sample Location
- 2018 Soil Boring Location
- 2018 Soil Vapor Sample Location
- Approximate Site Boundary



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Ebenezer Plaza 2 - BCP Site No. C224241

Figure 1a: 2018 Sample Locations
Borough of Brooklyn, Kings County, New York

Source: NYS Department of Transportation 2008 Roads Dataset; NYS Office of Technology 2013 Orthophoto Imagery

Drawn:	BWF
Date:	03/20/2019
Scale:	1 in equals 27 ft
Project:	20918.07
Figure:	1a

Legend

- 2018 Groundwater Sample Location
- 2018 Soil Boring Location
- 2018 Soil Vapor Sample Location
- Groundwater Sample Locations (2011 and 2017)
- Soil Sample Location (2009, 2011, and 2017)
- Approximate Site Boundary



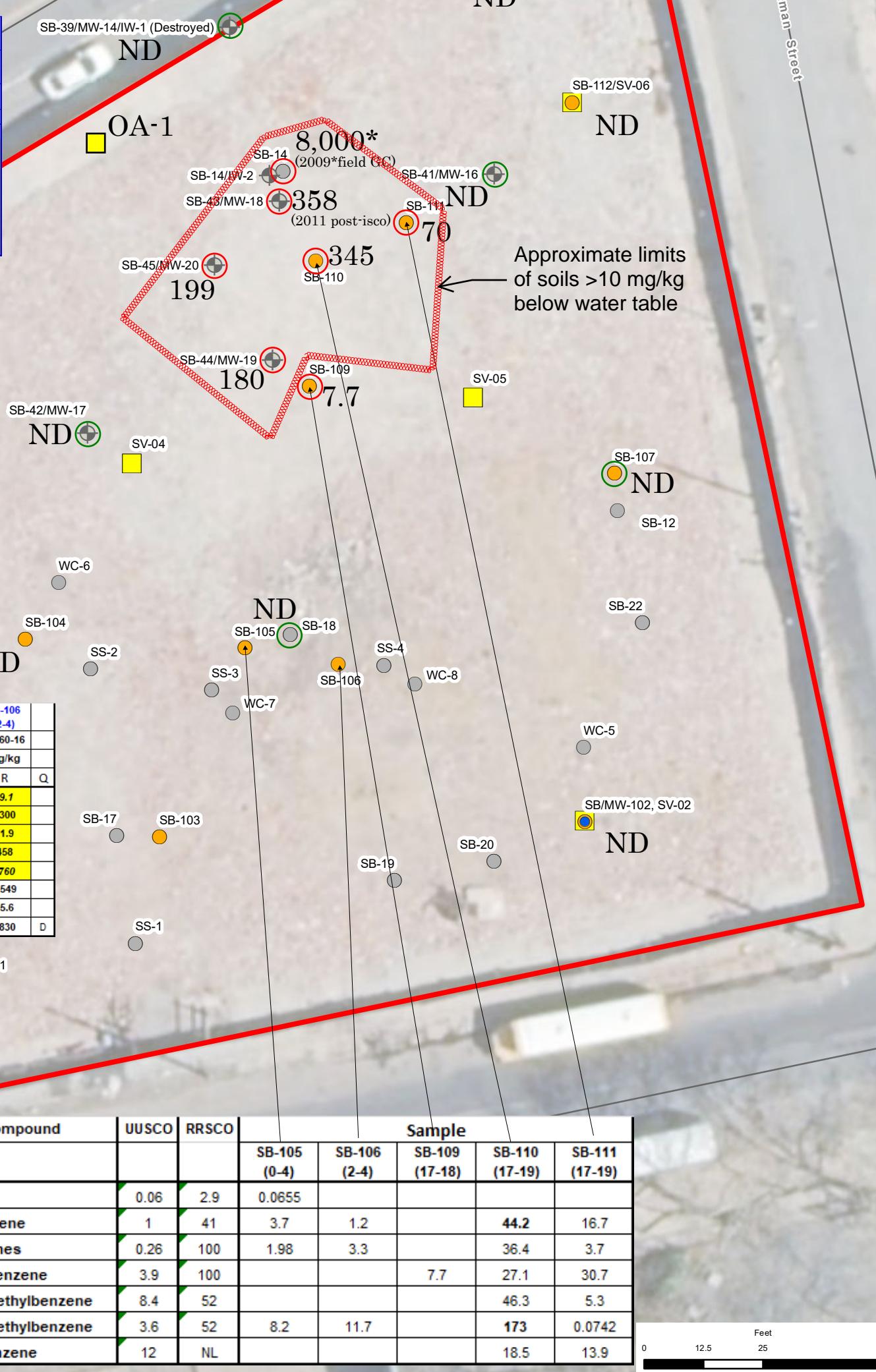
Legend

- 2018 Groundwater Sample Location
- 2018 Soil Boring Location
- 2018 Soil Vapor Sample Location
- Groundwater Sample Locations (2011 and 2017)
- Soil Sample Location (2009, 2011, and 2017)
- Approximate Site Boundary

- ND Total VOCs = Non-detect (below WT)
- 199 Total VOCs
- Approx. limits of VOCs >10 mg/kg

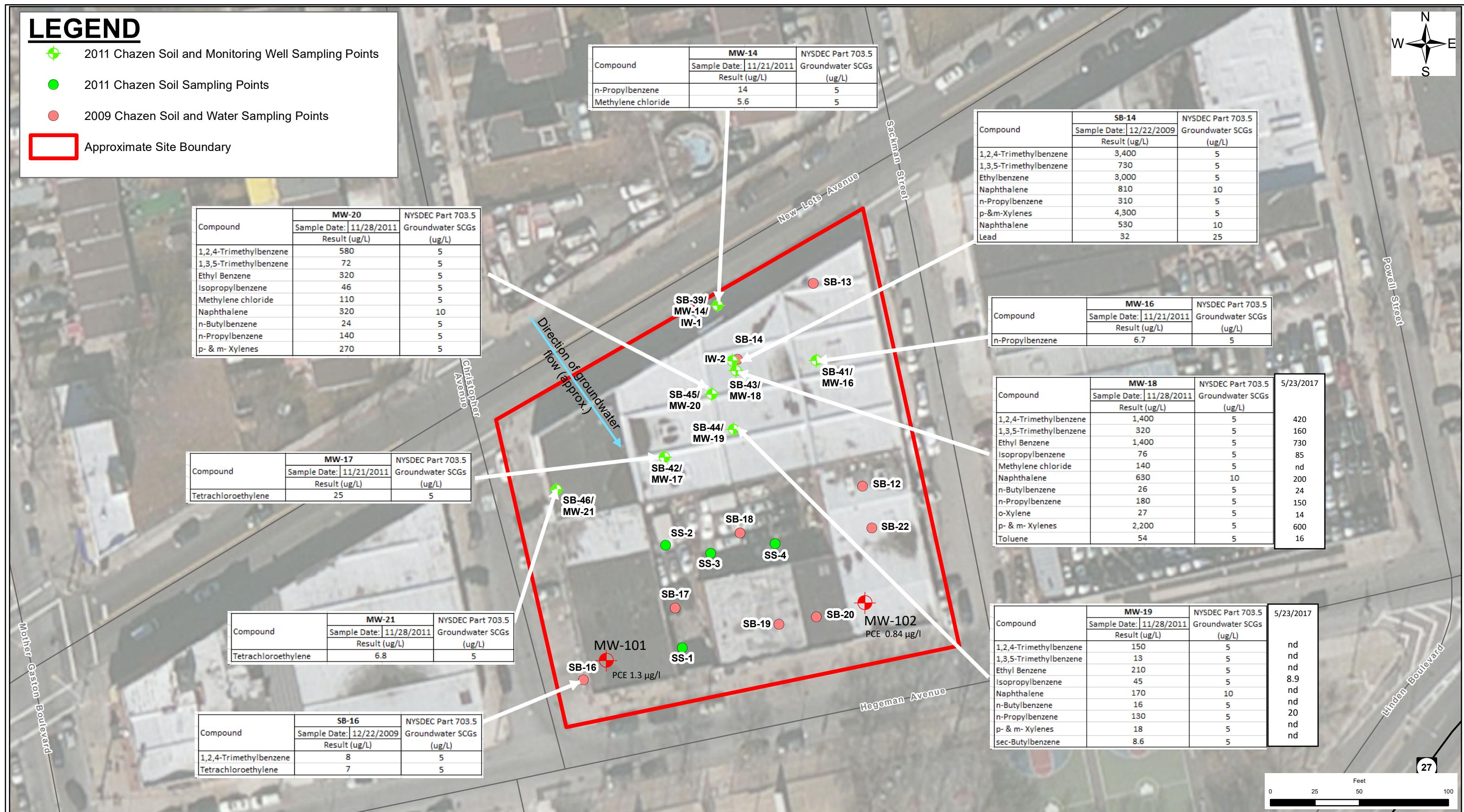


Sample Location:			SB-43	SB-44	SB-45
Sampling Date	UUSCO	RRSCO	11/22/11	11/22/11	11/22/11
Sample Depth	ppm	ppm	mg/kg	mg/kg	mg/kg
VOCs	ppm	ppm	mg/kg	mg/kg	mg/kg
1,2,4-Trimethylbenzene	3.6	52	100	57	51
1,3,5-Trimethylbenzene	8.4	52	58	13	13
Ethylbenzene	1	41	46	22	19
Isopropylbenzene	2.3	100	9.1	12	6.3
naphthalene	12	100	43	36	38
n-Butylbenzene	12	100	15	22	13
n-Propylbenzene	3.9	100	29	33	24
p- & m-Xylenes	100*	58	3.8	16	



LEGEND

- 2011 Chazen Soil and Monitoring Well Sampling Points
- 2011 Chazen Soil Sampling Points
- 2009 Chazen Soil and Water Sampling Points
- Approximate Site Boundary



Tables

CHEMTECH

284 Sheffield Street, Mountainside, NJ 07092 (908) 789-3900 Fax: (908) 789-0922 www.chemtech.net

The comparison of the regulatory limits in this report reflect the current Chemtech Consulting Group Inc. knowledge of the standards and are intended as general guidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID	EP2-SB-101(13-15)	EP2-SB-102(13-15)	EP2-SB-103(14-16)	EP2-SB-104(15-17)	EP2-SB-104(15-17)	17)RE	EP2-SB-107(14-16)	EP2-SB-112(14-16)	EP2-FD-01-1118	EP2-SB-105(0-4)	EP2-SB-105(0-4)	4)ME	EP2-SB-105(8-12)	EP2-SB-106(2-4)	EP2-SB-106(2-4)	4)ME	EP2-SB-108(14-16)	EP2-SB-109(14-16)	EP2-SB-109(17-18)	16)ME	EP2-SB-109(17-18)	EP2-SB-109(22-24)	EP2-SB-110(14-16)	EP2-SB-110(17-19)	19)ME	EP2-SB-110(24-28)	EP2-SB-111(14-16)	EP2-SB-111(17-19)	19)ME	EP2-SB-111(22-24)	EP2-SB-111(17-19)	19)ME	EP2-SB-106(5-5)
Lab Sample Number	JS860-01	JS860-02	JS860-03	JS860-04	JS860-04RE	JS860-05	JS860-14	JS860-14ME	JS860-15	JS860-16	JS860-16ME	JS860-17	JS860-18	JS860-18ME	JS860-19	JS860-19ME	JS860-20	JS860-21	JS860-22	JS860-22ME	JS860-23	JS860-24	JS860-25	JS860-25ME	JS860-26	JS860-27							
Sampling Date	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018				
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
COMPOUND	CAS #																																
Dichlorodifluoromethane	75-71-8	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Chloromethane	74-87-3	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Vinyl Chloride	75-01-4	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Bromomethane	74-83-9	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Chloroethane	75-00-3	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Trichlorofluoromethane	75-69-4	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
1,1,2-Trichlorotrifluoroethane	76-13-1	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
1,1-Dichloroethene	75-35-4	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Acetone	76-64-1	0.0228	0.0153 J	0.0229 J	0.0283	0.0257 U	0.027 JD	0.043	0.0117 J	0.59	0.49 JD	0.0397	0.58 JD	0.0291	0.0051 J	0.0299 U	1.4 UD	0.0442	0.0346	0.0246 U	26.8 UD	0.0351	0.0309	0.0277 U	28.4 UD	0.0342	0.016 J						
Carbon Disulfide	75-15-0	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Methyl tert-butyl Ether	1634-04-4	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0049 U	0.0049 U	5.4 UD	0.0049 U	0.0053 U	0.0055 U	5.7 UD	0.0054 U	0.0052 U	0.0052 U				
Methyl Acetate	79-20-9	0.0052 U	0.0057 U	0.0051 U	0.0057 U	0.0052 U	0.0051 U	0.0049 U	0.0051 U	0.0058 U	0.28 UD	0.0051 U	0.0048 U	0.23 UD	0.0052 U	0.005 U	0.0052 U	0.27 UD	0.0057 U	0.0													

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Sample ID	EP2-SB-101(13-15)	EP2-SB-102(13-15)	EP2-SB-103(14-16)	EP2-SB-104(15-17)	EP2-SB-105(14-16)	EP2-SB-112(14-16)	EP2-FD-01-118	EP2-SB-105(0-4)	EP2-SB-106(2-4)	EP2-SB-108(14-16)	EP2-SB-109(17-18)	EP2-SB-109(22-24)	EP2-SB-110(14-16)	EP2-SB-110(17-19)	EP2-SB-110(24-28)	EP2-SB-111(14-16)	EP2-SB-111(17-19)	EP2-SB-111(22-24)	EP2-SB-106(8.5-10.5)			
Lab Sample Number	J5860-01	J5860-02	J5860-03	J5860-04	J5860-07	J5860-08	J5860-14	J5860-15	J5860-16	J5860-17	J5860-18	J5860-19	J5860-20	J5860-21	J5860-22	J5860-23	J5860-24	J5860-25	J5860-26	J5860-27		
Sampling Date	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018		
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
COMPOUND	CAS #																					
Benzaldehyde	100-52-7	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.36 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Phenol	108-95-2	0.37	0.3 J	0.33 J	0.35	0.35 J	0.35	0.35 J	0.35	0.3 J	0.24 J	0.24	0.36	0.38 J	0.37 J	0.38	0.34 J	0.39	0.3 J	0.38 U	0.41	0.38
bis(2-Chloroethyl)ether	111-44-4	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2-Chlorophenol	95-57-8	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2-Methylphenol	95-48-7	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2,2-oxybis(1-Chloropropane)	108-60-1	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Acetophenone	98-86-2	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
3+4-Methylphenols	65794-96-9	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
n-Nitroso-di-n-propylamine	621-64-7	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Hexachloroethane	67-72-1	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Nitrobenzene	98-95-3	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Isophorone	78-59-1	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2-Nitrophenol	88-75-5	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2,4-Dimethylphenol	105-67-9	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
bis(2-Chloroethoxy)methane	111-91-1	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2,4-Dichlorophenol	120-83-2	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Naphthalene	91-20-3	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
4-Chloraniline	106-47-8	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Hexachlorobutadiene	87-68-3	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Caprolactam	105-60-2	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
4-Chloro-3-methylphenol	59-50-7	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
2-Methylnaphthalene	91-57-6	0.36 U	0.35 U	0.35 U	0.35 U	0.36 U	0.35 U	0.36 U	0.36 U	0.34 U	0.34 U	0.34 U	0.35 U	0.39 U	0.38 U	0.37 U	0.38 U	0.35 U	0.38 U	0.4 U	0.37 U	
Hexachlorocyclopentadiene	77-47-4	0.36 U																				

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Sample ID	EP2-SB-101(13-15)	EP2-SB-102(13-15)	EP2-SB-103(14-16)	EP2-SB-104(15-17)	EP2-SB-107(14-16)	EP2-SB-112(14-16)	EP2-FD-01-1118	EP2-SB-105(0-4)	EP2-SB-106(2-4)	EP2-SB-108(14-16)	EP2-SB-109(14-16)	EP2-SB-109(17-18)	EP2-SB-109(22-24)	EP2-SB-110(14-16)	EP2-SB-110(17-19)	EP2-SB-110(24-28)	EP2-SB-111(14-16)	EP2-SB-111(17-19)	EP2-SB-111(22-24)	EP2-SB-106(8.5-10.5)		
Lab Sample Number	J5860-01	J5860-02	J5860-03	J5860-04	J5860-07	J5860-08	J5860-09	J5860-14	J5860-15	J5860-16	J5860-17	J5860-18	J5860-19	J5860-20	J5860-21	J5860-22	J5860-23	J5860-24	J5860-25	J5860-26	J5860-27	
Sampling Date	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/6/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018	11/7/2018		
Matrix	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
COMPOUND	CAS #																					
Aluminum	7429-90-5	3170	3600	3480	3620	6290	3890	8820	6490	5610	5910	3370	3290	3500	2860	3700	3300	3200	3880	3340	2840	3350
Antimony	7440-36-0	2.23 U	2.2 U	2.17 U	2.24 U	2.34 U	2.19 U	2.27 U	5.28	2.22 U	11.1	2.18 U	2.21 U	2.45 U	2.48 U	2.29 U	2.33 U	2.47 U	2.23 U	2.39 U	2.54 U	2.38 U
Arsenic	7440-38-2	0.682 J	0.769 J	0.762 J	0.655 J	1.11	0.586 J	1.38	26.5	0.756 J	29.1	0.339 J	0.415 J	1.15	0.373 J	0.638 J	0.727 J	0.99 U	0.69 J	0.571 J	0.507 J	0.395 J
Barium	7440-39-3	16.8	11.3	15.1	15.1	14.8	30.3	26.6	973	16.5	1300	16.7	16	13.1	16.8	21.8	14.7	22.1	19.6	15.3	17.7	13.3
Beryllium	7440-41-7	0.147 J	0.15 J	0.166 J	0.18 J	0.206 J	0.192 J	0.261 J	0.187 J	0.179 J	0.384	0.127 J	0.129 J	0.147 J	0.108 J	0.145 J	0.155 J	0.114 J	0.17 J	0.182 J	0.168 J	0.136 J
Cadmium	7440-43-9	0.27 U	0.26 U	0.26 U	0.27 U	0.28 U	0.26 U	0.27 U	14.8	0.27 U	21.9	0.26 U	0.27 U	0.29 U	0.3 U	0.28 U	0.28 U	0.3 U	0.27 U	0.29 U	0.31 U	0.29 U
Calcium	7440-70-2	419	353	546	447	347	486	435	42300	512	35400	301	355	387	336	394	470	642	447	404	597	423
Chromium	7440-47-3	6.19	5.57	7.9	6.65	11.2	8.52	12.4	33.6	8.13	38.1	5.71	5.86	6.3	6.61	5.3	5.94	7.96	6.56	7.97	7.78	7.63
Cobalt	7440-48-4	3.49	3.16	3.53	3.52	3.92	4.62	4.51	7.45	4.48	12	2.96	3.12	3.51	3.88	3.37	4.24	4	3.8	4.17	4.09	2.37
Copper	7440-50-8	2.74	4.07	3.62	2.6	0.561 J	5.28	0.91 U	971	0.765 J	458	3.28	3.25	4.2	0.99 U	3.51	4.53	0.349 J	3.62	0.55 J	1.02 U	2.56
Iron	7439-89-6	7030	6500	7340	7780	11000	8490	14000	56800 D	9060	112000 D	5830	6650	6670	11400	6530	7750	15200	8470	11200	13200	7380
Lead	7439-92-1	1.17	1.06	1.57	1.01	1.24	1.84	2.97	2280	3.39	4760	1.53	1.17	2.75	0.6 U	2.44	7.71	0.59 U	2.63	22	0.61 U	1.06
Magnesium	7439-95-4	1400	1830	1770	1660	1630	1920	1480	4480	2000	2740	1660	1720	1850	1150	1640	1290	1380	1720	1300	1100	1410
Manganese	7439-96-5	137	205	200	232	197	413	254	402	209	577	176	197	66.9	99	216	576	179	284	352	147	121
Mercury	7439-97-6	0.02 U	0.01 U	0.01 U	0.01 U	0.007 J	0.01 U	0.008 J	0.372	0.009 J	0.549	0.01 U	0.01 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.01 U	0.02 U	0.02 U
Nickel	7440-02-0	15	17.4	16.8	15.6	12.6	23.5	10.4	69.8	17.4	95.6	12.9	16.3	20.6	12.7	14.8	19.4	11.6	18.1	15.3	16.4	14.1
Potassium	7440-09-7	308	381	488	395	314	443	326	637	332	599	586	410	434	453	319	336	517	452	344	348	387
Selenium	7782-49-2	0.286 J	0.483 J	0.521 J	0.541 J	0.406 J	0.754 J	0.648 J	0.93 U	0.89 U	0.92 U	0.87 U	0.88 U	0.98 U	0.99 U	0.258 J	0.93 U	0.99 U	0.339 J	0.96 U	1.02 U	0.95 U
Silver	7440-22-4	0.45 U	0.44 U	0.43 U	0.45 U	0.47 U	0.44 U	0.45 U	0.47 U	0.45 U	0.46 U	0.44 U	0.44 U	0.49 U	0.5 U	0.46 U	0.47 U	0.49 U	0.45 U	0.48 U	0.51 U	0.48 U
Sodium	7440-23-5	84.4 J	40.5 J	60.3 J	49.3 J	33.4 J	67 J	37.7 J	269	59.4 J	202	51.3 J	56 J	67.3 J	71.2 J	46.9 J	99.9	89.9 J	73.6 J	92.3 J	55.6 J	55.7 J
Thallium	7440-28-0	1.79 U	1.76 U	1.74 U	1.79 U	1.87 U	1.75 U	1.82 U	1.87 U	1.78 U	1.85 U	1.74 U	1.77 U	1.96 U	1.98 U	1.98 U	1.84 U	1.87 U	1.98 U	1.79 U	1.91 U	2.03 U
Vanadium	7440-62-2	9.79	7.83	9.58	9.58	14.1	11.1	18.5	34.2	10.9	38.4	7.58	8.53	11.9	10.3	7.89	11.1	15.7	12	14.2	16.4	8.76
Zinc	7440-66-6	10.9	12.6	15.7	19.1	13.8	14.6	17.8	2510 D	17.4	3830 D	11.7	13.2	13.9	16	13.5	13.3	16	14.7	15.2	15.8	12.7

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

(Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

(Inorganics) - The sample/duplicate %RPD was above the control limit.

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Sample ID	EP2-SV-01	EP2-SV-03	EP2-SV-05	EP2-SV-04	EP2-OA-01	EP2-SV-06	EP2-SV-02
Lab Sample Number	J6046-01	J6046-02	J6046-03	J6046-04	J6046-05	J6046-06	J6046-07
Sampling Date	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018	11/20/2018
Matrix	Air	Air	Air	Air	Air	Air	Air
Units	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3	Ug/M3
COMPOUND	CAS #						
Dichlorodifluoromethane	75-71-8	1.53 J	1.68 J	8.41	4.9	2.72	1.09 J
Chloromethane	74-87-3	0.64 J	1.03 U	1.03 U	8.67	1.01 J	0.76 J
Vinyl Chloride	75-01-4	0.08 U					
Bromomethane	74-83-9	1.94 U					
Chloroethane	75-00-3	1.32 U					
Tetrahydrofuran	109-99-9	29.5	16.2	13.9	16.5	1.47 U	23
Trichlorofluoromethane	75-69-4	7.31	37.1	184 D	152 D	2.02 J	3.37
1,1,2-Trichlorotrifluoroethane	76-13-1	3.83 U	3.83 U	3.83 U	3.83 U	0.77 J	3.83 U
Dichlorotetrafluoroethane	76-14-2	3.49 U					
Bromoethene	593-60-2	2.19 U					
tert-Butyl alcohol	75-65-0	1.52 U	5.15				
Heptane	142-82-5	2.05 U					
1,1-Dichloroethene	75-35-4	1.98 U					
Acetone	67-64-1	50.1 D	81 D	54.2 D	81.7 D	9.5	69.1 D
Carbon Disulfide	75-15-0	1.56 U	1.56 U	1.56 U	0.53 J	1.56 U	1.56 U
Methyl tert-Butyl Ether	1634-04-4	1.8 U					
Methylene Chloride	75-09-2	9.38	6.95	2.92	12.8	14.6	19.4
trans-1,2-Dichloroethene	156-60-5	1.98 U					
1,1-Dichloroethane	75-34-3	2.02 U					
Cyclohexane	110-82-7	1.72 U					
2-Butanone	78-93-3	142 D	258 D	205 D	214 D	0.83 J	146 D
Carbon Tetrachloride	56-23-5	0.5	0.38	0.25	0.38	0.5	0.31
cis-1,2-Dichloroethene	156-59-2	1.98 U					
Chloroform	67-66-3	2.44 U	2.44 U	0.88 J	1.37 J	2.44 U	2.44 U
1,1,1-Trichloroethane	71-55-6	0.65	0.55	0.71	0.16 U	0.16 U	0.76
2,2,4-Trimethylpentane	540-84-1	2.34 U					
Benzene	71-43-2	0.99 J	1.12 J	1.18 J	1.18 J	0.99 J	0.96 J
1,2-Dichloroethane	107-06-2	2.02 U					
Trichloroethene	79-01-6	0.38	0.43	0.16 U	0.16 U	0.16 U	1.34
1,2-Dichloropropane	78-87-5	2.31 U					
Bromodichloromethane	75-27-4	3.35 U					
4-Methyl-2-Pentanone	108-10-1	2.05 U					
Toluene	108-88-3	21.5	16.2	8.67	19.2	2.6	13.9
t-1,3-Dichloropropene	10061-02-6	2.27 U					
cis-1,3-Dichloropropene	10061-01-5	2.27 U					
1,1,2-Trichloroethane	79-00-5	2.73 U					
Dibromochloromethane	124-48-1	4.26 U					
1,2-Dibromoethane	106-93-4	3.84 U					
Tetrachloroethene	127-18-4	45.4	111 D	31.9	111 D	0.41	1.42
Chlorobenzene	108-90-7	2.3 U					
Ethyl Benzene	100-41-4	2.17 U	0.56 J	0.52 J	0.52 J	2.17 U	2.17 U
m/p-Xylene	179601-23-1	1.39 J	1.39 J	1.43 J	1.39 J	0.61 J	1.04 J
o-Xylene	95-47-6	0.43 J	2.17 U	2.17 U	0.43 J	2.17 U	2.17 U
Styrene	100-42-5	2.13 U					
Bromoform	75-25-2	5.17 U					
1,1,2,2-Tetrachloroethane	79-34-5	3.43 U					
2-Chlorotoluene	95-49-8	2.59 U					
1,3,5-Trimethylbenzene	108-67-8	2.46 U					
1,2,4-Trimethylbenzene	95-63-6	2.46 U					
1,3-Dichlorobenzene	541-73-1	3.01 U					
1,4-Dichlorobenzene	106-46-7	3.01 U					
1,2-Dichlorobenzene	95-50-1	3.01 U					
1,2,4-Trichlorobenzene	120-82-1	3.71 U					
Hexachloro-1,3-Butadiene	87-68-3	5.33 U					
1,3-Butadiene	106-99-0	1.11 U					
Naphthalene	91-20-3	2.62 U					
4-Ethyltoluene	622-96-8	2.46 U					
Hexane	110-54-3	3.28	1.76 U	2.15	5.29	6.34	9.16
Allyl Chloride	107-05-1	1.57 U					
1,4-Dioxane	123-91-1	1.8 U					
Methyl Methacrylate	80-62-6	2.05 U					

Qualifiers

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- N (Inorganics) - The matrix spike recovery was outside control limits
- J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL. The concentration given is an approximate value.
- B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.
- P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.
- * (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.
- * (Inorganics) - The sample/duplicate %RPD was above the control limit.
- E (Organics) - Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.
- E (Inorganics) - The reported value is estimated because of the presence of interference.
- D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.
- Q - indicates LCS control criteria did not meet requirements.
- NR - Not analyzed

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Sample ID		EP2-MW-101	EP2-MW-102	EP2-FD-02	EP2-TB-02
Lab Sample Number		J6047-01	J6047-04	J6047-05	J6047-06
Sampling Date		11/20/2018	11/20/2018	11/20/2018	11/13/2018
Matrix		Water	Water	Water	Water
Units		ug/L	ug/L	ug/L	ug/L
COMPOUND	CAS #				
Dichlorodifluoromethane	75-71-8	1 U	1 U	1 U	1 U
Chloromethane	74-87-3	1 U	1 U	1 U	1 U
Vinyl Chloride	75-01-4	1 U	1 U	1 U	1 U
Bromomethane	74-83-9	1 U	1 U	1 U	1 U
Chloroethane	75-00-3	1 U	1 U	1 U	1 U
Trichlorofluoromethane	75-69-4	1 U	1 U	1 U	1 U
1,1,2-Trichlorotrifluoroethane	76-13-1	1 U	1 U	1 U	1 U
1,1-Dichloroethene	75-35-4	1 U	1 U	1 U	1 U
Acetone	67-64-1	5 U	5 U	5 U	5 U
Carbon Disulfide	75-15-0	1 U	1 U	1 U	1 U
Methyl tert-butyl Ether	1634-04-4	1 U	1 U	1 U	1 U
Methyl Acetate	79-20-9	1 U	1 U	1 U	1 U
Methylene Chloride	75-09-2	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	156-60-5	1 U	1 U	1 U	1 U
1,1-Dichloroethane	75-34-3	1 U	1 U	1 U	1 U
Cyclohexane	110-82-7	1 U	1 U	1 U	1 U
2-Butanone	78-93-3	5 U	5 U	5 U	5 U
Carbon Tetrachloride	56-23-5	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	156-59-2	1 U	1 U	1 U	1 U
Bromochloromethane	74-97-5	1 U	1 U	1 U	1 U
Chloroform	67-66-3	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	71-55-6	1 U	1 U	1 U	1 U
Methylcyclohexane	108-87-2	1 U	1 U	1 U	1 U
Benzene	71-43-2	1 U	1 U	1 U	1 U
1,2-Dichloroethane	107-06-2	1 U	1 U	1 U	1 U
Trichloroethene	79-01-6	1 U	1 U	1 U	1 U
1,2-Dichloropropane	78-87-5	1 U	1 U	1 U	1 U
Bromodichloromethane	75-27-4	1 U	1 U	1 U	1 U
4-Methyl-2-Pentanone	108-10-1	5 U	5 U	5 U	5 U
Toluene	108-88-3	1 U	1 U	1 U	1 U
t-1,3-Dichloropropene	10061-02-6	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	10061-01-5	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	79-00-5	1 U	1 U	1 U	1 U
2-Hexanone	591-78-6	5 U	5 U	5 U	5 U
Dibromochloromethane	124-48-1	1 U	1 U	1 U	1 U
1,2-Dibromoethane	106-93-4	1 U	1 U	1 U	1 U
Tetrachloroethene	127-18-4	1.3	0.84 J	0.79 J	1 U
Chlorobenzene	108-90-7	1 U	1 U	1 U	1 U
Ethyl Benzene	100-41-4	1 U	1 U	1 U	1 U
m/p-Xylenes	179601-23-1	2 U	2 U	2 U	2 U
Total Xylenes	1330-20-7	3 U	3 U	3 U	3 U
o-Xylene	95-47-6	1 U	1 U	1 U	1 U
Styrene	100-42-5	1 U	1 U	1 U	1 U
Bromoform	75-25-2	1 U	1 U	1 U	1 U
Isopropylbenzene	98-82-8	1 U	1 U	1 U	1 U
1,1,2,2-Tetrachloroethane	79-34-5	1 U	1 U	1 U	1 U
n-propylbenzene	103-65-1	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	108-67-8	1 U	1 U	1 U	1 U
tert-Butylbenzene	98-06-6	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	95-63-6	1 U	1 U	1 U	1 U
sec-Butylbenzene	135-98-8	1 U	1 U	1 U	1 U
1,3-Dichlorobenzene	541-73-1	1 U	1 U	1 U	1 U
1,4-Dichlorobenzene	106-46-7	1 U	1 U	1 U	1 U
n-Butylbenzene	104-51-8	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	95-50-1	1 U	1 U	1 U	1 U
1,2-Dibromo-3-Chloropropane	96-12-8	1 U	1 U	1 U	1 U
1,2,4-Trichlorobenzene	120-82-1	1 U	1 U	1 U	1 U
1,2,3-Trichlorobenzene	87-61-6	1 U	1 U	1 U	1 U

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.

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D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

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Sample ID	EP2-MW-101	EP2-MW-102	EP2-FD-02
Lab Sample Number	J6047-01	J6047-04	J6047-05
Sampling Date	11/20/2018	11/20/2018	11/20/2018
Matrix	Water	Water	Water
Units	ug/L	ug/L	ug/L
COMPOUND	CAS #		
1,4-Dioxane	123-91-1	0.1 U	0.1 U

Total TICs

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Sample ID	EP2-MW-101	EP2-MW-102	EP2-FD-02
Lab Sample Number	J6047-01	J6047-04	J6047-05
Sampling Date	11/20/2018	11/20/2018	11/20/2018
Matrix	Water	Water	Water
Units	ug/L	ug/L	ug/L
COMPOUND	CAS #		
Benzaldehyde	100-52-7	10 U	10 U
Phenol	108-95-2	2.7 J	10 U
bis(2-Chloroethyl)ether	111-44-4	10 U	10 U
2-Chlorophenol	95-57-8	10 U	10 U
2-Methylphenol	95-48-7	10 U	10 U
2,2-oxybis(1-Chloropropane)	108-60-1	10 U	10 U
Acetophenone	98-86-2	10 U	10 U
3+4-Methylphenols	65794-96-9	10 U	10 U
n-Nitroso-di-n-propylamine	621-64-7	10 U	10 U
Hexachloroethane	67-72-1	10 U	10 U
Nitrobenzene	98-95-3	10 U	10 U
Isophorone	78-59-1	10 U	10 U
2-Nitrophenol	88-75-5	10 U	10 U
2,4-Dimethylphenol	105-67-9	10 U	10 U
bis(2-Chloroethoxy)methane	111-91-1	10 U	10 U
2,4-Dichlorophenol	120-83-2	10 U	10 U
Naphthalene	91-20-3	10 U	10 U
4-Chloroaniline	106-47-8	10 U	10 U
Hexachlorobutadiene	87-68-3	10 U	10 U
Caprolactam	105-60-2	10 U	10 U
4-Chloro-3-methylphenol	59-50-7	10 U	10 U
2-Methylnaphthalene	91-57-6	10 U	10 U
Hexachlorocyclopentadiene	77-47-4	10 U	10 U
2,4,6-Trichlorophenol	88-06-2	10 U	10 U
2,4,5-Trichlorophenol	95-95-4	10 U	10 U
1,1-Biphenyl	92-52-4	10 U	10 U
2-Choronaphthalene	91-58-7	10 U	10 U
2-Nitroaniline	88-74-4	10 U	10 U
Dimethylphthalate	131-11-3	10 U	10 U
Acenaphthylene	208-96-8	10 U	10 U
2,6-Dinitrotoluene	606-20-2	10 U	10 U
3-Nitroaniline	99-09-2	10 U	10 U
Acenaphthene	83-32-9	10 U	10 U
2,4-Dinitrophenol	51-28-5	10 U	10 U
4-Nitrophenol	100-02-7	10 U	10 U
Dibenzofuran	132-64-9	10 U	10 U
2,4-Dinitrotoluene	121-14-2	10 U	10 U
Diethylphthalate	84-66-2	10 U	10 U
4-Chlorophenyl-phenylether	7005-72-3	10 U	10 U
Fluorene	86-73-7	10 U	10 U
4-Nitroaniline	100-01-6	10 U	10 U
4,6-Dinitro-2-methylphenol	534-52-1	10 U	10 U
n-Nitrosodiphenylamine	86-30-6	10 U	10 U
4-Bromophenyl-phenylether	101-55-3	10 U	10 U
Hexachlorobenzene	118-74-1	10 U	10 U
Atrazine	1912-24-9	10 U	10 U
Pentachlorophenol	87-86-5	10 U	10 U
Phenanthrene	85-01-8	10 U	10 U
Anthracene	120-12-7	10 U	10 U
Carbazole	86-74-8	10 U	10 U
Di-n-butylphthalate	84-74-2	10 U	10 U
Fluoranthene	206-44-0	10 U	10 U
Pyrene	129-00-0	10 U	10 U
Butylbenzylphthalate	85-68-7	10 U	10 U
3,3-Dichlorobenzidine	91-94-1	10 U	10 U
Benzo(a)anthracene	56-55-3	10 U	10 U
Chrysene	218-01-9	10 U	10 U
Bis(2-ethylhexyl)phthalate	117-81-7	10 U	10 U
Di-n-octyl phthalate	117-84-0	10 U	10 U
Benzo(b)fluoranthene	205-99-2	10 U	10 U
Benzo(k)fluoranthene	207-08-9	10 U	10 U
Benzo(a)pyrene	50-32-8	10 U	10 U
Indeno(1,2,3-cd)pyrene	193-39-5	10 U	10 U
Dibenzo(a,h)anthracene	53-70-3	10 U	10 U
Benzo(g,h,i)perylene	191-24-2	10 U	10 U
1,2,4,5-Tetrachlorobenzene	95-94-3	10 U	10 U
2,3,4,6-Tetrachlorophenol	58-90-2	10 U	10 U

Total TICs 125.7 88.4 95.6

Qualifiers

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The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

Q - indicates LCS control criteria did not meet requirements.

NR - Not analyzed

CHEMTECH

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The comparison of the regulatory limits in this report reflect the current Chemtech Consulting Group Inc. knowledge of the standards and are intended as general guidance for the user. Please consult appropriate regulations and cleanup standards for your specific application.

Sample ID		EP2-MW-101	EP2-MW-102	EP2-FD-02
Lab Sample Number		J6047-01	J6047-04	J6047-05
Sampling Date		11/20/2018	11/20/2018	11/20/2018
Matrix		Water	Water	Water
Units		ug/L	ug/L	ug/L
COMPOUND	CAS #			
Aluminum	7429-90-5	50 U	24 J	13.3 J
Antimony	7440-36-0	25 U	25 U	25 U
Arsenic	7440-38-2	10 U	10 U	10 U
Barium	7440-39-3	207	110	127
Beryllium	7440-41-7	3 U	3 U	3 U
Cadmium	7440-43-9	3 U	3 U	3 U
Calcium	7440-70-2	132000	213000	243000
Chromium	7440-47-3	5 U	5 U	5 U
Cobalt	7440-48-4	15 U	4.04 J	4.65 J
Copper	7440-50-8	10 U	10 U	10 U
Iron	7439-89-6	42.1 J	353	732
Lead	7439-92-1	2.39 J	2.55 J	1.76 J
Magnesium	7439-95-4	15100	32900	37000
Manganese	7439-96-5	2030	363	402
Mercury	7439-97-6	0.2 U	0.2 U	0.2 U
Nickel	7440-02-0	20 U	20 U	20 U
Potassium	7440-09-7	16800	11600	13200
Selenium	7782-49-2	9 J	8.74 J	7.93 J
Silver	7440-22-4	5 U	5 U	5 U
Sodium	7440-23-5	270000	130000	149000
Thallium	7440-28-0	20 U	20 U	20 U
Vanadium	7440-62-2	20 U	20 U	20 U
Zinc	7440-66-6	7.53 J	6.85 J	8.11 J

Total TICs

Qualifiers

U - The compound was not detected at the indicated concentration.

N (Organics) - Presumptive Evidence of a Compound

N (Inorganics) - The matrix spike recovery was outside control limits

J - Data indicates the presence of a compound that meets the identification criteria. The result is less than the quantitation limit but greater than MDL.

The concentration given is an approximate value.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

P - For dual column analysis, the percent difference between the quantitated concentrations on the two columns is greater than 40%.

* (Organics) - For dual column analysis, the lowest quantitated concentration is being reported due to coeluting interference.

* (Inorganics) - The sample/duplicate %RPD was above the control limit.

E (Organics) - Indicates the analyte's concentration exceeds the calibrated range of the instrument for that specific analysis.

E (Inorganics) - The reported value is estimated because of the presence of interference.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

Q - indicates LCS control criteria did not meet requirements.

NR - Not analyzed

Field Logs

THE Chazen COMPANIES		21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026	PROJECT: LOCATION: CLIENT: PROJECT NO.:	EBENEZER PLAZA 2	Test Boring No.: SB-101					
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski		Start Date: 11/6/18 Finish Date: El. Datum: G.S. Elevation:	Northing: na Easting: na Longitude: na Latitude: na	Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.						
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
1	1	1 <1 20						Brown to grey-brown silty sand w/ brick, concrete, asphalt, rock fragments, wet from rain, NOSO1 Med dense		3/18/19
2	2	2 <1 14						8" SAA, moist		Drove blind point beyond end of SB + 20', then
3	3	3 <1 31						6" orange-brown f-s m sand, moist, loose NOSO1		Set MW to 20'
4	4	4 <1 30						31" SAA, orange-brown to brown, moist, loose, NOSO1		5' screen
5	5	5 <1 5						30" SAA, brown, moist to wet, NOSO1		15' riser
6	6									#2 sand
7	7									
8	8									
9	9									
10	10									
11	11									
12	12									
13	13									
14	14									
15	15									
16	16									
17	17									SAMPLE 13-15' @ 1410
18	18									
19	19									
20	20									
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer						DRILLING INFORMATION				
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston						Method: Direct Push				
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.						Method:				
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.						Type:	Casing	Sample	Core	
ADDITIONAL 1. NOSOI-No obvious sign of impacts						Diam.:				
NOTES: 2. saa - same as above						Weight:				
3. bgs - below ground surface						Fall:				

THE Chazen COMPANIES		21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026	PROJECT: EBENEZER PLAZA 2 LOCATION: CLIENT: PROJECT NO.:	Test Boring No.: SB-101						
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski		Start Date: 11/6/18 Finish Date: El. Datum: G.S. Elevation:	Northing: na Easting: na Longitude: na Latitude: na	Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.						
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
1	1	1 < 1 20						Brown to grey-brown silty sand w/ brick, concrete, asphalt, rock fragments, wet from rain, NOSO1 Med dense		
2	2	2 < 1 14						8" SAA, moist		
3	3	3 < 1 31						6" orange-brown f-s m sand, moist, loose NOSO1		
4	4	4 < 1 30						31" SAA, orange-brown to brown, moist, loose, NOSO1		
5	5	5 < 1 5						30" SAA, brown, moist to wet, NOSO1		
15										Set MW to 20' 5' screen 15' riser #2 sand
16										SAMPLE 13-15' @ 1410
17										
18										
19										
20										
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer					DRILLING INFORMATION					
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston					Method: Direct Push					
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.					Method:					
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet.					Type:	Casing	Sample	Core		
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.					Diam.:					
ADDITIONAL 1. NOSOI-No obvious sign of impacts					Weight:					
2. saa - same as above					Fall:					
3. bgs - below ground surface										

THE Chazen COMPANIES		21 Fox Street Poughkeepsie, NY 12601		PROJECT: EBENEZER PLAZA 2		Test Boring No.: SB-102				
				LOCATION: CLIENT: PROJECT NO.:						
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski		Ph: (845) 454-3980 Fax: (845) 454-4026		Start Date: 11/6/18	Northing: na	Total Depth: ft.				
				Finish Date:	Easting: na	Borehole Dia.: in.				
				El. Datum:	Longitude: na	Water Depth: ft.				
				G.S. Elevation:	Latitude: na	Rock Depth: ft.				
						Well Depth: ft.				
Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
1	1	21	15					Brown to grey-brown silty sand w/ brick, concrete, asphalt, metal frags, cob/ash, dry to moist		
2	2	21	18					SAA, dry to moist		Set MW to 20'. 5' screen, 17' riser (to leave 2' stic)
3	3	21	25					16" SAA, dry to moist		
4	4	21	31					9" orange-brown firm sand, moist		
5	5	21	26					SAA, orange-brown to brown, moist to wet, NOSOI		Sample 13-15' @ 1120
6	6									
7	7									
8	8									
9	9									
10	10									
11	11									
12	12									
13	13									
14	14									
15	15									
16	16									
17	17									
18	18									
19	19									
20	20									
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer										
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston										
STANDARD: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.										
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.										
ADDITIONAL NOTES: 1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface										
DRILLING INFORMATION										
Method: Direct Push										
Method:										
Type:	Casing	Sample	Core							
Diam.:										
Weight:										
Fall:										

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>							<p>PROJECT: EBENEZER PLAZA 2</p> <p>LOCATION:</p> <p>CLIENT:</p> <p>PROJECT NO.:</p> <p>Start Date: 11/6/2018</p> <p>Finish Date:</p> <p>El. Datum:</p> <p>G.S. Elevation:</p> <p>Northing: na</p> <p>Easting: na</p> <p>Longitude: na</p> <p>Latitude: na</p>				Test Boring No.: SB-103		
											Total Depth: ft.		
							Start Date: 11/6/2018	Finish Date:	El. Datum:	G.S. Elevation:	Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.		
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:				Well Diagram	
1		1	21 28					Grey-brown silty sand w/ brick, concrete, asphalt, coal/ash, wet (due to rain), med dense NOSOI				Field Notes, Well Notes, Comments:	
2		2	21 20					16" SAA, moist, greybrown to brown					
3		3	21 26					4" orange-brown firm sand, moist NOSOI					
4		4	30					26" SAA, orange-brown, moist, NOSOI					
5		5	26					30" SAA, brown, moist to wet				SAMPLE 14-16 @ 1305	
6								26" SAA, brown, wet					
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
<p>METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer</p> <p>SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston</p> <p>STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.</p> <p>NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.</p> <p>ADDITIONAL NOTES: 1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface</p>										DRILLING INFORMATION			
										Method:	Direct Push		
										Method:			
										Type:	Casing	Sample	Core
										Diam.:			
										Weight:			
										Fall:			

THE Chazen COMPANIES 21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026						PROJECT: EBENEZER PLAZA LOCATION: CLIENT: PROJECT NO.:			Test Boring No.: SB-104		
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski						Start Date: Finish Date: El. Datum: G.S. Elevation:	Northing: na Easting: na Longitude: na Latitude: na	Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.			
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:			Well Diagram
1		1	21					Brown silty sand w/ asphalt, concrete, brick, rock fragments, wet (due to rain), medium dense NOSOI			
2		2	21					SAA, moist, brown, medium dense. NOSOI			
3		3	21					4" SAA 25" orange-brown to brown fgm sand, moist, loose, NOSOI			
4		4	21					SAA, moist			
5		5	21					SAA, moist to wet			
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								DRILLING INFORMATION Method: Direct Push Method:			
ADDITIONAL 1. NOSOI-No obvious sign of impacts NOTES: 2. saa - same as above 3. bgs - below ground surface								Casing Sample Core			
								Type: Diam.: Weight: Fall:			

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Belucci Geologist: Eric Orlowski</p>						<p>PROJECT: EBERGER PLAZA 2</p> <p>LOCATION: CLIENT: PROJECT NO.:</p> <p>Start Date: _____ Northing: na Finish Date: _____ Easting: na El. Datum: _____ Longitude: na G.S. Elevation: _____ Latitude: na</p>			<p>Test Boring No.: SB-105</p> <p>Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.</p>		
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:	
1	31.5	11						3" concrete/brick frags			
2	3.3							6" dk gray to black silty sand w/ brick, concrete, asphalt, glass, rock frags, moderate wa. petroleum odor, dry, med dense.		SAMPLE 0-4' 0920	
3								3" brown silty sand w/ debris 2s above, no odor,			
4	2 C 1 14							14" SAA, dry to moist, little debris 2s above, NOSO			
5											
6											
7											
8	3 C 1 8							1" SAA		SAMPLE 8-12' 0945	
9								7" brown to orange-brown f->m sand, dry to moist, loose, NOSO			
10											
11											
12	4 C 1 9							9" SAA, dn, to moist, loose, NOSO			
13											
14											
15											
16	5 C 1 12							12" SAA, wet, NOSO			
17											
18											
19											
20											
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer								DRILLING INFORMATION			
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston								Method: Direct Push			
STANDARD: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.								Method:			
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								Type:	Casing	Sample	Core
ADDITIONAL NOTES: 1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface								Diam.:			
								Weight:			
								Fall:			

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>						<p>PROJECT: EBENETOR PLAZA 2</p> <p>LOCATION: CLIENT: PROJECT NO.: Start Date: 11/16/2018 Finish Date: El. Datum: G.S. Elevation:</p>				<p>Test Boring No.: SB-107</p> <p>Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.</p>																								
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:																								
1	21.36							4" brick/concrete frags 22" brown fine sand to silty sand w/ concrete, brick, asphalt, metal frags, grey shale frags Dry to moist, NOSOI																										
2	21.35							25" SAA, dry to moist, NOSOI -																										
3	21.26							10" SAA 16" brown to m.sand, moist, NOSOI																										
4	21.30							30" SAA, brown to orange brown, moist to wet, NOSOI																										
5	21.28							12" SAA, wet 10" SAA, gray, wet 6" SAA, orange brown, wet																										
<p>METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.</p>																																		
ADDITIONAL NOTES:	1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface	4. TGSP - Temporary Groundwater Sampling Point				<p>DRILLING INFORMATION</p> <table border="1"> <tr> <td>Method:</td><td>Direct Push</td></tr> <tr> <td>Method:</td><td></td></tr> <tr> <td>Type:</td><td>Casing</td><td>Sample</td><td>Core</td></tr> <tr> <td>Diam.:</td><td></td><td></td><td></td></tr> <tr> <td>Weight:</td><td></td><td></td><td></td></tr> <tr> <td>Fall:</td><td></td><td></td><td></td></tr> </table>									Method:	Direct Push	Method:		Type:	Casing	Sample	Core	Diam.:				Weight:				Fall:			
Method:	Direct Push																																	
Method:																																		
Type:	Casing	Sample	Core																															
Diam.:																																		
Weight:																																		
Fall:																																		

(FD)

SAMPLE
14-16'
1030

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>						<p>PROJECT: EBENEZER PLAZA 2 LOCATION: CLIENT: PROJECT NO.:</p> <p>Start Date: 11/7/2018 Finish Date: El. Datum: G.S. Elevation:</p> <p>Northing: na Easting: na Longitude: na Latitude: na</p>				Test Boring No.: SB-108					
										Total Depth: ft.					
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:				Well Diagram	Field Notes, Well Notes, Comments:		
1		1	21 3					3" Brick/concrete fragments							
2															
3															
4								Brown silty sand w/ brick/concrete fragments, moist, med. dense, NOSOI							
5															
6															
7															
8								Brown f-m sand, dry to moist, loose, NOSOI							
9															
10															
11															
12								SAA, moist							
13															
14															
15															
16								SAA, wet							
17															
18															
19															
20															
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston												DRILLING INFORMATION			
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.												Method: Direct Push			
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.												Method:			
ADDITIONAL 1. NOSOI-No obvious sign of impacts NOTES: 2. saa - same as above 3. bgs - below ground surface												Type:	Casing	Sample	Core
												Diam.:			
												Weight:			
												Fall:			

THE Chazen COMPANIES 21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026						PROJECT: EBENERZER PLAZA 2 LOCATION: CLIENT: PROJECT NO.: Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Belucci Geologist: Eric Orlowski				Test Boring No.: SB-109			
						Start Date: 11/7/2018 Finish Date: El. Datum: G.S. Elevation:	Northing: na Easting: na Longitude: na Latitude: na	Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.					
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:		Well Diagram	Field Notes, Well Notes, Comments:		
								12" Brown silty sand w/ concrete fragments, dry to wet (from rain), med dense, NOSOI 19" SAA, few small frags, moist, NOSOI 4" SAA 26" brown firm sand, moist, loose, NOSOI 26" SAA, moist, loose, NOSOI 8" SAA, wet 12" grey firm sand, solvent odor (strong), wet 16" light grey-brown firm sand, wet, grain odor					
1	<1	12									SAMPLES		
2	21	19											
3	<1	30											
4	<1	26									14-16 (1115)		
5	<1	36									17-18 (1125)		
6		263.7											
7		5.2											
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.										DRILLING INFORMATION Method: Direct Push Method:			
ADDITIONAL 1. NOSOI-No obvious sign of impacts NOTES: 2. saa - same as above 3. bgs - below ground surface										Type:	Casing	Sample	Core
										Diam.:			
										Weight:			
										Fall:			

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>						<p>PROJECT: LOCATION: CLIENT: PROJECT NO.:</p> <p>Start Date: Finish Date: El. Datum: G.S. Elevation:</p> <p>Northing: na Easting: na Longitude: na Latitude: na</p>				<p>Test Boring No.: SB-109</p> <p>Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.</p>	
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery(%)	Groundwater	Group	Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
21		6	21	39					39" light brown to brown sand, wet, NOSOI		SAMPLE 22-24 (1135)
22											
23											
24											
25									EOB - 24'		
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer

SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston

STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.

NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet.

3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.

ADDITIONAL 1. NOSOI-No obvious sign of impacts

4. TGSP - Temporary Groundwater Sampling Point

NOTES: 2. saa - same as above

3 bgs - below ground surface

DRILLING INFORMATION

Method: Direct Push

Method:

Type:	Casing	Sample	Core
-------	--------	--------	------

Type:			
-------	--	--	--

Diam.:			
--------	--	--	--

Weight:			
---------	--	--	--

Fall:			
-------	--	--	--

THE Chazen COMPANIES 21 Fox Street Poughkeepsie, NY 12601 Ph: (845) 454-3980 Fax: (845) 454-4026						PROJECT: LOCATION: CLIENT: PROJECT NO.: Start Date: Finish Date: El. Datum: G.S. Elevation:				Test Boring No.: SB-110 Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.																								
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski																																		
Depth (Ft)	Elevation (Ft)	Casing Blows	Sample No.	pID (ppm)	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:				Well Diagram	Field Notes, Well Notes, Comments:																					
1			6	2.3	16			Grey brown fm sand, faint solvent odor, wet tr. c sand					SAMPLES																					
2																																		
3																																		
4			7	1	15			Grey-brown fm sand, NOSOI, wet tr. c sand					(24-28) 1245 1242																					
5																																		
6																																		
7																																		
8								EoB - 28'																										
9																																		
10																																		
11																																		
12																																		
13																																		
14																																		
15																																		
16																																		
17																																		
18																																		
19																																		
20																																		
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted. NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.												DRILLING INFORMATION Method: Direct Push Method: <table border="1"> <tr> <th></th> <th>Casing</th> <th>Sample</th> <th>Core</th> </tr> <tr> <td>Type:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Diam.:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Weight:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Fall:</td> <td></td> <td></td> <td></td> </tr> </table>				Casing	Sample	Core	Type:				Diam.:				Weight:				Fall:			
	Casing	Sample	Core																															
Type:																																		
Diam.:																																		
Weight:																																		
Fall:																																		
ADDITIONAL NOTES: 1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface												4. TGSP - Temporary Groundwater Sampling Point																						

Pg. 1

THE Chazen COMPANIES						21 Fox Street Poughkeepsie, NY 12601 Ph: (845) 454-3980 Fax: (845) 454-4026		PROJECT: EBENEZER PLAZA 2 LOCATION: CLIENT: PROJECT NO.: Start Date: 11/7/2018 Finish Date: El. Datum: G.S. Elevation:				Test Boring No.: SB- 111	
Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski										Total Depth: ft.			
Depth (Ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:				Well Diagram	Field Notes, Well Notes, Comments: <u>SAMPLES</u>
	1	1	<1	17					17" brown silty sand w/ concrete, brick, asphalt, rock frags, moist, med dense, NOSO1				
2	2	<1	22					27" SAA, moist, NOSO1					
3	3	<1	24					3" SAA, moist, NOSO1					
4	4	<1	28					21" brown fgm sand, dry to moist, loose, NOSO1					
13								28" SAA, moist, NOSO1					
16	5	13.2	36					3" SAA					
17								33" grey grey fgm sand, tr. c sand, wet, solvent odor					
18													
19													
20													
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer										DRILLING INFORMATION			
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston										Method: Direct Push			
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.										Method:			
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.										Casing Sample Core			
ADDITIONAL	1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface									Type:			
NOTES:	4. TGSP - Temporary Groundwater Sampling Point									Diam.:			
										Weight:			
										Fall:			

Pg.2

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p>							<p>PROJECT: LOCATION: CLIENT: PROJECT NO.:</p>			<p>Test Boring No.: SB-111</p>			
<p>Contractor: Core Down Drilling Drill Rig: GeoProbe 54DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>							<p>Start Date: Finish Date: El. Datum: G.S. Elevation:</p>	<p>Northing: na Easting: na Longitude: na Latitude: na</p>	<p>Total Depth: ft. Borehole Dia.: in. Water Depth: ft. Rock Depth: ft. Well Depth: ft.</p>				
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery (in)	Groundwater	Group Symbol	Stratum and Field Descriptions:			Well Diagram	Field Notes, Well Notes, Comments:	
1	6	2.1	22					<p>6" SAA, faint odor, wet 16" orange brown b → m sand, wet</p>				SAMPLE 22-24' 1340	
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer											DRILLING INFORMATION		
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston													
STANDARD 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.											Method: Direct Push		
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet.											Method:		
3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.											Casing	Sample	Core
<p>ADDITIONAL 1. NOSOI-No obvious sign of impacts</p> <p>NOTES: 2. saa - same as above</p> <p>3. bgs - below ground surface</p>											Type:		
											Diam.:		
											Weight:		
											Fall:		

<p>THE Chazen COMPANIES</p> <p>21 Fox Street Poughkeepsie, NY 12601 Phn: (845) 454-3980 Fax: (845) 454-4026</p> <p>Contractor: Core Down Drilling Drill Rig: GeoProbe S400 S400 DT Driller: Joe Bellucci Geologist: Eric Orlowski</p>						<p>PROJECT: EBB - ECKER PLAZA 2</p> <p>LOCATION:</p> <p>CLIENT:</p> <p>PROJECT NO.:</p> <p>Start Date: 11/6/18</p> <p>Finish Date:</p> <p>Ei. Datum:</p> <p>G.S. Elevation:</p> <p>Northing: na</p> <p>Easting: na</p> <p>Longitude: na</p> <p>Latitude: na</p>			<p>Test Boring No.: SB-112</p> <p>Total Depth: ft.</p> <p>Borehole Dia.: 2.5 in.</p> <p>Water Depth: ft.</p> <p>Rock Depth: ft.</p> <p>Well Depth: ft.</p>	
Depth (ft)	Elevation (ft)	Casing Blows	Sample No.	PID (ppm)	Recovery(in)	Groundwater	Group Symbol	Stratum and Field Descriptions:	Well Diagram	Field Notes, Well Notes, Comments:
1			1 <1 24					6" concrete /brick rubble		
2								18" orange-brown silty sand w/ concrete, brick, asphalt frag.		
3								Dry, NOSOI		
4			2 <1 6					6" SAA, dry to moist, NOSOI		
5										
6										
7										
8			3 <1 32					4" SAA		
9								28" fm brown sand, moist, NOSOI		
10										
11										
12			4 <1 32					32" SAA, moist to wet, NOSOI		
13										
14										
15										
16			5 31					31" SAA, wet, NOSOI		
17										
18										
19										
20										
METHODS: HSA- Hollow Stem Auger, RWH- Rotary Wash, SSA- Solid Stem Auger, CPT- Cone Penetrometer								DRILLING INFORMATION		
SAMPLE TYPES: AS-Auger, WS-Wash, SS-Split Spoon, RC-Rock Core, GS-Grab, ST-Shelby Tube, PS-Piston								Method: Direct Push		
STANDARD: 1. Samples classified in accordance with ASTM D-2488 unless otherwise noted.								Method:		
NOTES: 2. Test Boring Log Page 1: 0 - 20 feet. Each subsequent page: Additional 20 feet. 3. Refer to the "Interpretation of Subsurface Logs" for additional symbology and abbreviation definitions.								Type:	Sample	Core
ADDITIONAL NOTES: 1. NOSOI-No obvious sign of impacts 2. saa - same as above 3. bgs - below ground surface								Diam.:		
								Weight:		
								Fall:		

WELL DEVELOPMENT FIELD SHEET

PROJECT NAME: Ebenerer Plaza 2
 PROJECT NUMBER and TASK: 20918.07 /0400
 PROJECT LOCATION: Brooklyn, NY
 PROJECT MANAGER: Kevin McGrath

WELL ID: MW -102
 FIELD DATE: 11/20/2018
 TECHNICIAN: Eric Orlowski

Depth to Bottom: 22.50 feet
 Depth to Water: 16.07 feet
 Length of Water Column: = 6.43 feet
 Gallons of Water/Foot of Depth: x 0.041 gal/ft
 Well Volume: = 0.26 gallons
 # of well volumes to be purged: x 10
 Total volume to be purged: = 2.6 gallons

Pipe Diameter	Gallons/ Foot
<u>1.0"</u>	<u>0.041</u>
1.25"	0.064
2.0"	0.163
3.0"	0.367
4.0"	0.653
6.0"	1.469
8.0"	2.611

Purge Method: Peristaltic

Water Level Reference Point: TAC-PVC

	Time	Water Level	Flow Rate	Temp.	pH	Conductivity	Turbidity	Other (DO)
V1	1142	16.07	0.06	8.9	8.03	1793	>1100	9.86
V2	1146	16.09	0.06	9.7	7.99	1934	423.7	9.62
V3	1151	16.09	0.06	10.8	7.95	1680	75.85	9.45
V4	1155	16.09	0.06	13.0	7.90	1648	819.6	9.94
V5	1200	16.10	0.06	13.1	7.86	1606	52.05	10.01
V6	1204	16.10	0.06	13.2	7.81	1588	575.2	10.88
V7	1209	16.10	0.06	13.3	7.75	1563	191.2	11.07
V8	1213	16.10	0.06	13.2	7.68	1579	140.3	10.92
V9	1218	16.11	0.06	13.2	7.64	1586	106.8	10.87
V10	1222	16.11	0.06	13.1	7.57	1540	36.41	10.70
	1226	16.11	0.06	13.2	7.54	1804	13.38	10.61

SAMPLE TIME 1227- Collected VOCs/TICs
 SVOCs/TICs
 TAL Metals
 1,4-Dioxane
 PFAS (21)

NOTES: DEDICATED HOPE TUBING TO WELL
FD-O2 COLLECTED HERE.

WELL DEVELOPMENT FIELD SHEET

PROJECT NAME: Ebenezer Plaza 2
PROJECT NUMBER and TASK: 20918.07 / 0400
PROJECT LOCATION: Brooklyn, NY
PROJECT MANAGER: Kevin McGrath

WELL ID: MW-101
FIELD DATE: 11/20/2018
TECHNICIAN: Eric Orlowski

Depth to Bottom:	22.50	feet	
Depth to Water:	15.72	feet	
Length of Water Column:	=	6.78	feet
Gallons of Water/Foot of Depth:	x	0.041	gal/ft
Well Volume:	=	0.278	gallons
# of well volumes to be purged:	x	10	
Total volume to be purged:	=	2.78	gallons

Pipe Diameter	Gallons/foot
1.0"	0.041
1.25"	0.064
2.0"	0.163
3.0"	0.367
4.0"	0.653
6.0"	1.469
8.0"	2.611

Purge Method: Penstaltic

Water Level Reference Point: TOC-PVC

NOTES: MS/MSD COLLECTED HERE
DEDICATED HOPE TUBING TO WELL.

Soil Vapor Intrusion and Indoor Air Quality Sampling Field Form

Site Name: EBENEZER PLAZA 2
Project/Task Number: 20918.07 / TASK 0400
Date: 11/20/2018
Technician: ERIC OLFOWSKY

Sub-slab Samples

PID

Indoor Ambient and Outdoor Background Air Samples

Post	PIP
05	0.0
04	0.1
03	0.1
01	0.0
02	0.0
06	0.0

Soil Vapor Intrusion and Indoor Air Quality Sampling Field Form

Field Observations and Notes

1) Current Weather Conditions:

Mid-40s, overcast, humid, light/variable wind (primarily N → S)

2) Weather over the Past 48 Hours:

40s-50s, sunny 11/19, rainy/overcast 11/20. Light winds.

3) Are there ambient odors in the space? If so, describe:

N/A

4) Inventory of VOC-containing products in use and/or stored in the space and their condition:

[A large area of the form is left blank for listing VOC-containing products.]

5) Note any improper storage practices or spillage that may impact ambient air quality:

[A large area of the form is left blank for notes on storage practices.]

6) Note ambient temperature of space, if heating/cooling systems are operating, if doors/windows are closed and current air flow pattern(s) if any:

[A large area of the form is left blank for notes on ambient conditions.]

7) Note any other pertinent conditions/operations that may affect ambient air quality:

[A large area of the form is left blank for notes on other pertinent conditions.]

DUSR

Laboratory Analytical Reports