

February 15, 2019

Nick Acampora
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Circle Road, SUNY at Stony Brook
Stony Brook, NY 11790-3409

Re: Former Concrete Pad Investigation and Post-Excavation Sampling
Former Cibro Terminal Site ID: 130153
7 Washington Ave, Island Park NY 11558

Mr. Acampora,

The letter report supersedes Posillico's February 8th 2018 Former Concrete Pad Investigation and Post-Excavation Sampling letter report.

This letter presents a summary of the remedial work associated with the removal of former concrete tank pads #11, #13, and #14. All work was completed in accord with the approved November 2017 Remedial Action Work Plan (RAWP).

The following work is summarized in this report:

- Former concrete tank pads #11, #13, and #14 were demolished and removed.
- Following the removal of the concrete pads, a test pit investigation was completed.
- Samples were collected from each test pit and analyzed for the site-specific parameters.
- The tank pad analytical sample results are detailed within.
 - Based on the analytical sample results limited remedial excavation was recommended in the area of former tank pad #14.
- The remedial excavation in the area of tank pad #14 was completed and five end-point post excavation samples were collected.
 - No exceedances were detected of site-specific cleanup standards in the tank pad #14 post excavation samples.
- All test pitting and sampling work was overseen by the NYSDEC, ROUX, and VHB.

PROJECT BACKGROUND

The project remedial work mobilization began in July 2018. Upon mobilization, four concrete tank pads remained on-site that required demolition and sampling in accord with the RAWP.

During previous remedial investigations on June 7, 2007 and July 21, 2011, samples were collected in the areas surrounding tank pads #11 and #13. Samples from the June 2007 and July 2011 sampling were compiled with the current remedial investigation work to fully characterize the area around tank pads #11 and #13.

Additional sampling is planned for beneath tank pad #12. However, tank pad #12 has not removed at this time as it has equipment staged on top of the pad. Once this equipment has been moved and the concrete pad has been demolished, the additional sampling will be scheduled.

SAMPLING METHODOLOGY:

In accord with NYSDEC's November 9, 2018 approval and on-site observations, sampling was conducted by test pitting with an excavator as an alternative to the direct-push macro-core sampling method specified in the RAWP.

- Test pits were terminated when the peat layer was encountered.
 - Peat was encountered between elevations -0.25 and -2 (NAVD88).
 - Ground surface elevation ranges from ~3-5 (NAVD88) in the test pit areas.
- Excavated soil from each of the test pits was field screened using visual, olfactory, and photo-ionization device (PID) observations.
- Soil samples were selected from the interval(s) exhibiting the highest potential for impacts.
- ROUX, VHB, and the NYSDEC were present on November 15, 2018 and December 6, 2018 to observe the test pit and post-excavation sampling work.

REMEDIAL INVESTIGATION WORK SUMMARY

Tank Pads #14 and #13

- Demolition of concrete tank pads #14 and #13 was completed on November 9 and November 14, 2018 respectively.
- Test pit sampling in the area of former concrete tank pads #14 and #13 was completed on November 15, 2018.
- Eight and six test pits were dug in the areas of tank pads #14 and #13 respectively.
 - One discrete sample for VOCs and SVOCs was collected from each test pit.
- The analytical results from July 2011 were compiled with the data from the November 2018 sampling in the area of tank pad #13.
- The location and analytical results summary of the tank pad #14 and #13 sampling are shown on Figures 2 and 3 respectively.

Tank Pad #11

- Demolition of concrete pad #11 was completed on November 29, 2018.
- Test pit sampling in the area of former tank pad #11 was completed December 6, 2018.
- Three test pits were dug in the area of tank pad #11.
- Based on field observations, one sample was collected from the TP-11-2 test pit from soils above the peat confining layer and two samples were collected from sample locations TP11-1 and TP11-3, one sample above the peat confining layer and one from within the peat confining layer.
- The analytical results from July 2011 and June 2007 were compiled with the data from the December 2018 sampling in the area of tank pad #11.
- The location and analytical results summary of the tank pad #11 sampling are shown on Figures 4.

ANALYTICAL METHODS:

Samples were stored in laboratory provided ice-chilled coolers and were transported to the Test America Laboratories. Samples for VOCs and SVOCs were transported to the NYS ELAP-accredited laboratory in Edison, New Jersey. Samples were collected in accord with the approved RAWP; VOC samples were collected using laboratory-prepared Terra Core sampling kits. Samples were analyzed using the following methods:

- VOCs plus 10 TICs- EPA Method 8260C
- SVOCs plus 20 TICs- EPA Method 8270D

SAMPLING SUMMARY:

Sample Location	# of Samples		
	6/7/07 and 7/21/11	11/15/18	12/6/18
Beneath Pad 14	0	4	0
Surrounding Pad 14	0	4	0
Beneath Pad 13	0	4	0
Surrounding Pad 13	2	2	0
Beneath Pad 11	0	0	4
Surrounding Pad 11	4	0	1

SITE SPECIFIC SOIL CLEANUP OBJECTIVES (SSSCOs)

The SSSCOs for this project are as follows:

- VOCs and SVOCs below the Part 375-6.8(b) Restricted Use Cleanup Objectives for Restricted Residential Use
- Total of the top ten VOC TICs below 10 parts per million (ppm)
- Total of the top ten twenty SVOC TICs below 100 ppm

TEST PIT INVESTIGATION ANALYTICAL RESULT SUMMARY

Nineteen samples were collected in total for VOCs plus TICs and SVOCs plus TICs and compared against the SSSCOs. Category B deliverables will be uploaded to the NYSDEC file transfer system. The analytical

results for VOCs plus TICs are summarized in Table 1. The results for SVOCs plus TICs are summarized in Table 2.

Tank Pad 11

- Based on field observations, one sample was collected from the TP-11-2 test pit from soils above the peat confining layer and two samples were collected from sample locations TP11-1 and TP11-3, one sample above the peat confining layer and one from within the peat confining layer.
- There were no exceedances detected for VOC or SVOC SSSCOs in the three samples collected from above the peat confining layer in the tank pad #11 area.
- There were no exceedances detected for VOC SSSCOs in the two samples collected from within the peat, PDC-RI-TP11-1-BP(4.5) and PDC-RI-TP11-3Peat(6.5), collected from the peat confining layer in the tank pad #11 area.
- The following exceedances were detected for SVOC SSSCOs in the tank pad #11 area:

Sample Identification	Sample Location	Compound	Result	SSSCO
PDC-RI-TP11-1-BP(4.5)	TP11-1	SVOC TICs	316 ppm	100 ppm
PDC-RI-TP11-3Peat(6.5)	TP11-3	SVOC TICs	160 ppm	100 ppm

- In accord with the approved November 2017 RAWP and previous discussion with NYSDEC representation, remedial excavation activities will not be extended into the peat confining layer. Based on the exceedances of SVOC TIC SSSCOs detected in samples collected from the peat confining layer in the area of former tank pad #11 remedial excavation is not recommended.

Tank Pad 13

- There were no exceedances detected for VOC or SVOC SSSCOs in the six samples collected from the tank pad #13 area.

Tank Pad 14

- There were no exceedances detected for VOC or SVOC SSSCOs from seven out of eight samples collected from this area. This included the sample locations TP-1, TP-2, TP-4, TP-5, TP-6, TP-7, and TP-8.
- There were no exceedances detected for VOCs at sample location TP-3. Slight exceedances of SSSCOs were detected for three SVOC compounds at sample location TP-3:

Compound	Result	SSSCO
Benzo[a]anthracene	1.7 ppm	1 ppm
Benzo[a]pyrene	1.2 ppm	1 ppm
Benzo[b]fluoranthene	1.2 ppm	1 ppm

TANK PAD 14 EXCEEDANCE EXCAVATION

- The exceedances detected in sample location TP-3 were excavated on December 6, 2018.
- Excavation area is approximately 20 feet by 15 feet.

- The extents of excavation are shown on Figure 5.
- Excavated soil was stockpiled on a 10-mil polyethylene tarp and covered.
- The bottom of the excavation was terminated at peat.
 - Peat was encountered at approximately 2'-3' below ground surface.
- The sidewalls were terminated based on visual, olfactory, and PID observations.
- Samples were taken at the northern, southern, eastern, and western sidewalls, as well as the bottom of the excavated area. The bottom sample was collected from the peat confining layer.

Sample Location	# of Sidewall Samples	# of Bottom Samples
Tank Pad #14: Post- Excavation	4	1

No exceedance of SSSCOs for VOCs or SVOCs were detected in the five post-excavation samples. Based on the post-excavation analytical results, no additional excavation is recommended. The results for VOCs and SVOCs are summarized in Tables 4 and 5 respectively.

Conclusions and Recommendations:

Based on the tank pad investigation samples and corresponding post-excavation samples, no additional investigations are recommended for the soils beneath and surrounding the former concrete pads #11, #13, and #14.

In accord with the approved November 2017 RAWP and previous discussion with NYSDEC representation, remedial excavation activities will not be extended into the peat confining layer. Based on the exceedances of SVOC TIC SSSCOs detected in samples collected from the peat confining layer in the area of former tank pad #11 remedial excavation is not recommended.

The exceedances of SVOC TIC SSSCOs detected in samples collected from the peat confining layer in the area of former tank pad #11 will be managed beneath the site Engineering Controls (ECs); demarcation layer and clean fill cover layer.

Feel free to reach out if you have any questions or concerns.

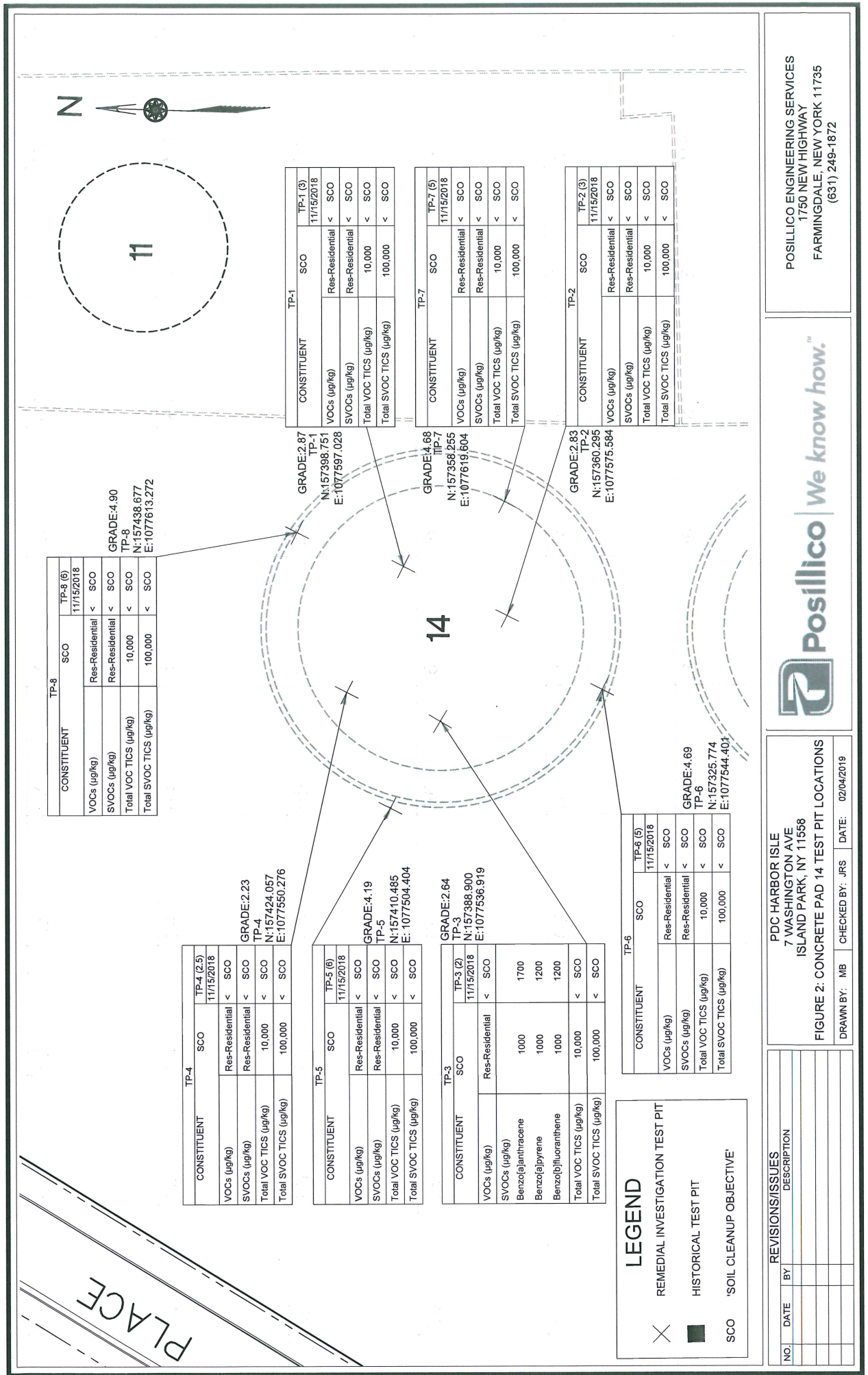
Regards,



James Smyth
Environmental Engineer

cc:

Wendy S. Kuehner, P.E., NYSDOH (email)
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REVISIONS/ISSUES

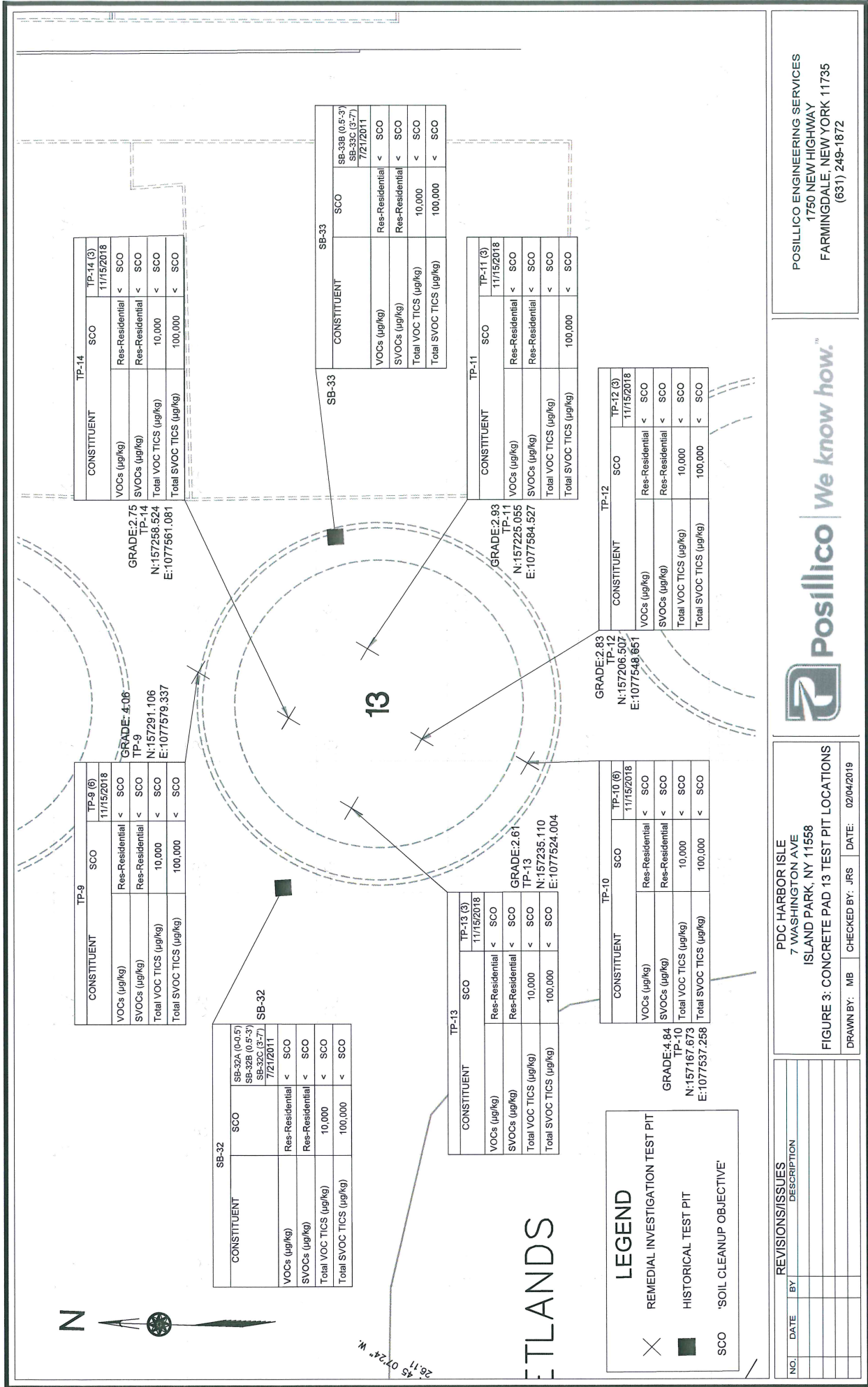
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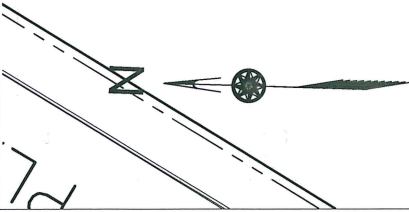
FIGURE 2: CONCRETE PAD 14 TEST PIT LOCATIONS

DRAWN BY: MB CHECKED BY: JRS DATE: 02/04/2019

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EXTENT OF
EXCAVATION

14

TP-3-3		SCO		12/6/2018
CONSTITUENT				
VOCs (µg/kg)		Res-Residential		< SCO
SVOCs (µg/kg)		Res-Residential		< SCO
Total VOC TICS (µg/kg)			10,000	< SCO
Total SVOC TICS (µg/kg)			100,000	< SCO

GRADE: 2.59
TP3-3
N: 157389.44
E: 1077554.94

TP-3-2		SCO		12/6/2018
CONSTITUENT				
VOCs (µg/kg)		Res-Residential		< SCO
SVOCs (µg/kg)		Res-Residential		< SCO
Total VOC TICS (µg/kg)			10,000	< SCO
Total SVOC TICS (µg/kg)			100,000	< SCO

GRADE: 6.05
TP3-2
N: 157402.49
E: 1077536.24

TP-3-5		SCO		12/6/2018
CONSTITUENT				
VOCs (µg/kg)		Res-Residential		< SCO
SVOCs (µg/kg)		Res-Residential		< SCO
Total VOC TICS (µg/kg)			10,000	< SCO
Total SVOC TICS (µg/kg)			100,000	< SCO

GRADE: 2.67
TP3-5
N: 157389.25
E: 1077524.76

TP-3-4		SCO		12/6/2018
CONSTITUENT				
VOCs (µg/kg)		Res-Residential		< SCO
SVOCs (µg/kg)		Res-Residential		< SCO
Total VOC TICS (µg/kg)			10,000	< SCO
Total SVOC TICS (µg/kg)			100,000	< SCO

GRADE: 2.60
TP3-4
N: 157375.93
E: 1077536.64

TP-3-1 (Peat)		SCO		12/6/2018
CONSTITUENT				
VOCs (µg/kg)		Res-Residential		< SCO
SVOCs (µg/kg)		Res-Residential		< SCO
Total VOC TICS (µg/kg)			10,000	< SCO
Total SVOC TICS (µg/kg)			100,000	< SCO

GRADE: 2.39
TP3-1
N: 157388.900
E: 1077536.919

LEGEND

✕

REMEDIAL INVESTIGATION TEST PIT

■

HISTORICAL TEST PIT

SCO

'SOIL CLEANUP OBJECTIVE'

REVISIONS/ISSUES	
NO.	DESCRIPTION

PDC HARBOR ISLE
7 WASHINGTON AVE
ISLAND PARK, NY 11558

FIGURE 5: POST-EX SAMPLE LOCATIONS

DRAWN BY: MB CHECKED BY: JRS DATE: 02/04/2019

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Table 1
Results for VOCs BY 8260C- Pads 11, 13, and 14

Sample ID	NY 375-6.8(b)										PDC-R1-TP1 (3)		PDC-R1-TP2 (3)		PDC-R1-TP3 (2)		PDC-R1-TP4 (2.5)		PDC-R1-TP5 (6)		PDC-R1-TP6 (5)		PDC-R1-TP7 (5)		PDC-R1-TP8 (6)		PDC-R1-TP9 (6)		PDC-R1-TP10 (6)	
	Sampling Date	Restricted Residential	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result	Soil	Result
Matrix		Soil Cleanup	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dilution Factor		Criteria	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Unit		Criteria	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result
VOCs BY 8260C		100000	1	U	0.63	U	1.7	U*	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,1,1-Trichloroethane		26000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,1-Dichloroethane		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,2-Dichloroethane		52000	0.76	J	0.63	U	0.33	J	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,2,4-Trimethylbenzene		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,2-Dichlorobenzene		3100	1.0	U	0.63	U*	1.7	U*	1.0	U*	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,2-Dichloroethane		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,3,5-Trimethylbenzene		NA	0.26	J	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,3,5-Trimethylbenzene		49000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,3-Dichlorobenzene		13000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	1.2	U	0.87	U	0.90	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
1,4-Dichlorobenzene		13000	20	U	1.3	U	35	U	20	U	20	U	18	U	18	U	17	U	18	U	18	U	17	U	18	U	18	U	18	U
1,4-Dioxane		NA	2.8	J	1.2	J	37	U	7.9	U	13	U	10	U	10	U	14	U	10	U	17	U	14	U	10	U	18	U	9.5	U
2-Butanone (MEK)		100000	24	U	6.6	U	190	U	62	U	77	U	72	U	72	U	150	U	72	U	150	U	72	U	60	U	60	U	65	U
Acetone		4800	1.0	U	0.63	U	0.59	J	0.65	J	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Benzene		2400	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Carbon tetrachloride		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Chlorobenzene		49000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Chloroform		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
cis-1,2-Dichloroethene		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Diethylbenzene		41000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Ethylbenzene		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Methyl tert-butyl ether		100000	2.2	U	0.17	J	2.9	U	4.4	U	1.7	U	0.42	J	0.42	J	0.55	J	0.42	J	0.55	J	0.55	J	0.29	J	0.29	J	0.65	J
Methylene Chloride		100000	1.0	U	0.63	U	0.49	J	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
n-Butylbenzene		100000	1.0	U	0.63	U	0.48	J	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
N-Propylbenzene		100000	1.0	U	0.63	U	0.53	U	0.53	J	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
sec-Butylbenzene		100000	0.11	J	0.63	U	0.53	U	0.53	J	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
tert-Butylbenzene		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Tetrachloroethene		19000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Toluene		100000	1.0	U	0.63	U	7.7	U	6.1	U	0.66	J	1.8	U	1.8	U	2.3	U	0.94	U	2.3	U	0.94	U	0.87	J	0.87	J	1.0	U
trans-1,2-Dichloroethene		100000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Trichloroethene		21000	1.0	U	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U	0.90	U	1.2	U	0.87	U	1.2	U	0.87	U	0.90	U	0.90	U	0.90	U
Vinyl chloride		900	1.0	U*	0.63	U	1.7	U	1.0	U	0.99	U	0.90	U*	0.90	U*	0.90	U*	0.90	U*	0.90	U*	0.90	U*	0.90	U*	0.90	U*	0.90	U*
Xylenes, Total		100000	0.90	J	1.3	U	1.2	U	0.72	J	0.57	J	0.69	J	1.1	J	1.1	J	1.7	U	1.1	J	1.7	U	0.64	J	0.64	J	0.62	J
Total Conc		NA	31.03		7.97		241.22		81.9		92.93		85.27		172.46		88.63		68.8		1031.0		965.0		0.0		77.354		77.354	
Total Estimated Conc. (TICs)		10000**	117.7		24.4		1144.0		128.5		0.0		123.9		1031.0		965.0		0.0		1031.0		965.0		0.0		77.354		77.354	

** Site Specific Soil Cleanup Objective

*T: There are no TICs reported for the sample

*: LCS or LCSD is outside acceptance limits.

B: The analyte was found in an associated blank, as well as in the sample.

J: Indicates an estimated value.

U: Analyzed for but not detected.



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Table 1 Continued
Results for VOCs BY 8260C- Pads 11, 13, and 14

Sample ID	NY 375-6.8(b)										PDC-R1-TP11 (3)										PDC-R1-TP12 (3)										PDC-R1-TP13 (3)										PDC-R1-TP14 (3)										PDC-R1-TP11-1-AP (3)										PDC-R1-TP11-1-BP (4.5)										PDC-R1-TP11-2-AP (5)										PDC-R1-TP11-3 (4.5)										PDC-R1-TP11-3-peak (6.5)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Sampling Date	Matrix	Dilution Factor	Unit	Restricted Residential	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15/2018	11/15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**Site Specific Soil Cleanup Objective

*T There are no TICs reported for the sample

* : LCS or LCSD is outside acceptance limits.

B : The analyte was found in an associated blank, as well as in the sample.

J : Indicates an estimated value.

U : Analyzed for but not detected.



Brownfield Cleanup Site C130153
Former Cibro Petroleum Terminal Site
February, 2019

Table 2
Results for SVOCs BY 8270D- Pads 11, 13, and 14

Sample ID	NY 375-6.8(b)																																					
	Restricted Residential		Soil Cleanup		Criteria		1		1		1		1		1		1		1		1		1		1		1		1		1		1					
	Matrix	Dilution Factor	Units	SVOCs by 8270D	Criteria	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018	Soil	11/15/2018	Result	11/15/2018			
	2-Methylphenol	100000	420	U	390	U	700	U	430	U	400	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U
	3 & 4 Methylphenol	NA	420	U	390	U	700	U	430	U	400	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U
	Acenaphthene	100000	420	U	390	U	170	J	44	J	120	J	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U
	Acenaphthylene	100000	420	U	390	U	76	J	33	J	13	J	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U
	Anthracene	100000	26	J	80	J	580	J	140	J	110	J	44	J	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U
	Benzofluranthene	1000	100	U	160	U	1700	U	610	U	290	U	110	J	51	J	140	J	150	J	160	J	90	J	150	J	160	J	90	J	150	J	160	J	90	J	150	J
	Benzofluranthene	1000	120	U	120	U	1200	U	430	U	220	U	81	J	48	J	160	J	26	J	94	U	67	J	220	J	36	J	130	U	67	J	220	J	36	J	130	U
Benzofluranthene	10000	68	U	150	U	1200	U	440	U	260	U	81	J	49	J	34	J	95	J	56	J	32	J	120	J	14	J	55	J	32	J	120	J	14	J	55	J	
Benzofluranthene	100000	44	J	67	J	560	J	200	J	77	J	51	J	110	J	51	J	140	J	110	J	50	U	32	J	38	U	20	J	38	U	20	J	38	U	20	J	
Chrysene	3900	26	J	63	J	1700	J	700	J	310	J	110	J	51	J	140	J	140	J	110	J	50	U	32	J	38	U	20	J	38	U	20	J	38	U	20	J	
Dibenzofluranthene	330	42	U	23	U	190	U	65	U	36	U	39	U	50	U	370	U	380	U	33	J	12	J	500	U	370	U	380	U	33	J	12	J	500	U	370	U	
Dibenzofuran	59000	420	U	17	J	88	J	15	J	140	J	12	J	500	U	150	J	63	J	240	J	90	J	150	J	63	J	240	J	90	J	150	J	63	J	240	J	
Fluoranthene	100000	130	J	330	J	2600	J	1100	J	500	U	210	J	21	J	500	U	380	U	43	J	21	J	500	U	370	U	43	J	21	J	500	U	370	U	43	J	
Fluorene	100000	14	J	29	J	300	J	45	J	210	J	21	J	500	U	380	U	37	U	39	U	21	J	500	U	370	U	39	U	21	J	500	U	370	U	39	U	
Hexachlorobenzene	1200	42	U	39	U	70	U	43	U	40	U	39	U	50	U	38	U	38	U	39	U	40	U	39	U	38	U	39	U	40	U	39	U	38	U	39	U	
Indeno(1,2,3-cd)pyrene	500	39	J	67	J	570	J	220	J	120	J	48	J	34	J	110	J	18	J	64	J	34	J	110	J	18	J	64	J	34	J	110	J	18	J	64	J	
Naphthalene	100000	420	U	12	J	75	J	15	J	33	J	10	J	21	J	370	U	380	U	36	J	21	J	370	U	380	U	36	J	21	J	370	U	380	U	36	J	
Pentachlorophenol	6700	340	U	310	U	560	U	350	U	320	U	320	U	400	U	300	U	310	U	310	U	400	U	300	U	310	U	310	U	400	U	300	U	310	U	310	U	
Phenanthrene	100000	150	J	260	J	3100	J	570	J	590	J	140	J	41	J	42	J	380	U	190	J	140	J	41	J	42	J	380	U	190	J	140	J	42	J	380	U	
Phenol	100000	420	U	390	U	700	U	430	U	400	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	500	U	370	U	380	U	390	U	
Pyrene	100000	220	J	350	J	3500	J	1600	J	650	J	230	J	87	J	150	J	60	J	220	J	87	J	150	J	60	J	220	J	87	J	150	J	60	J	220	J	
Total Conc	NA	1003.0		1878.0		18199.0		6457.0		3809.0		1147.0		556.0		1391.0		337.0		1478.0		556.0		1391.0		337.0		1478.0		556.0		1391.0		337.0		1478.0		
Total Estimated Conc. (TICs)	100000**	3710.0		4100.0		64800.0		6100.0		3620.0		5030.0		7890.0		8160.0		3800.0		9280.0		7890.0		8160.0		3800.0		9280.0		7890.0		8160.0		3800.0		9280.0		

Highlighted Concentrations shown in bold type face exceed SSSCOs

**Site Specific Soil Cleanup Objectives

*T There are no TICs reported for the sample

J : Indicates an estimated value.

U : Analyzed for but not detected.

* : LCS or LCSD is outside acceptance limits.

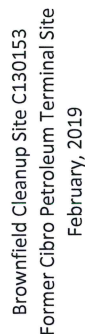


Table 2 Continued

Highlighted Concentrations shown in bold type face exceed SSSCOs
 **Site Specific Soil Cleanup Objectives
 † There are no TICs reported for the sample
 J: Indicates an estimated value.
 U: Analyzed for but not detected.
 *: LCS or LCSD is outside acceptance limits.



Brownfield Cleanup Site C130153
Former Cibro Petroleum Terminal Site
February, 2019

Table 3
Results for VOCs BY 8260C-TP3 Post-Excavation

Sample ID	NY 375-6.8(b)												
	Restricted Residential												
	Soil Cleanup												
	Criteria												
	ug/kg												
	Units												
	VOCs BY 8260C												
	1,1,1-Trichloroethane												
	1,1-Dichloroethane												
	1,1-Dichloroethane												
1,2,4-Trimethylbenzene													
1,2-Dichlorobenzene													
1,2-Dichloroethane													
1,3,5-Trimethylbenzene													
1,3-Dichlorobenzene													
1,4-Dichlorobenzene													
1,4-Dioxane													
2-Butanone (MEK)													
Acetone													
Benzene													
Carbon tetrachloride													
Chlorobenzene													
Chloroform													
cis-1,2-Dichloroethene													
Ethylbenzene													
Methyl tert-butyl ether													
Methylene Chloride													
n-Butylbenzene													
n-Propylbenzene													
sec-Butylbenzene													
tert-Butylbenzene													
Tetrachloroethene													
Toluene													
trans-1,2-Dichloroethene													
Trichloroethene													
Vinyl chloride													
Xylenes, Total													
Total Conc													
Total Estimated Conc. (TICs)													
PDC-PK-TP3-1													
PDC-PK-TP3-2													
PDC-PK-TP3-3													
PDC-PK-TP3-4													
PDC-PK-TP3-5													
PDC-SP-TP3-1													
12/6/2018													
Soil													
1													
12/6/2018													
Soil													
1													
12/6/2018													
Soil													
1													
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**Site Specific Soil Cleanup Objectives
*J : There are no TICs reported for the sample
J : Indicates an estimated value.
U : Analyzed for but not detected.



Brownfield Cleanup Site C130153
Former Cibro Petroleum Terminal Site
February, 2019

Table 4
Results for SVOCs BY 8270D- TP3 Post-Excavation

Sample ID	NY 375-6.8(b)											
	Restricted Residential											
	Soil	1	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018
Matrix	Soil	1	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Dilution Factor	1	1										
Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
SVOCs BY 8270D	Criteria	Result	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018	12/6/2018
2-Methylphenol	100000	1100	U	400	U	400	U	500	U	410	U	460
3 & 4 Methylphenol	NA	1100	U	400	U	400	U	64	J	410	U	460
Acenaphthene	100000	1100	U	64	J	400	U	500	U	410	U	460
Acenaphthylene	100000	1100	U	19	J	400	U	500	U	410	U	14
Anthracene	100000	1100	U	240	J	400	U	52	J	410	U	57
Benzo(a)anthracene	1000	110	U	940	U	27	J	150	U	66	U	240
Benzo(a)pyrene	1000	110	U	740	U	40	U	110	U	56	U	190
Benzo(b)fluoranthene	1000	110	U	620	U	28	J	180	U	85	U	230
Benzo(g,h,i)perylene	100000	1100	U	390	J	12	J	83	J	37	J	110
Benzo(k)fluoranthene	3900	110	U	250	*	13	J	45	J	41	U	51
Chrysene	10000	1100	U	1100	U	27	J	220	J	59	J	270
Dibenz(a,h)anthracene	330	110	U	130	U	40	U	50	U	41	U	37
Dibenzofuran	59000	1100	U	400	U	400	U	26	J	410	U	460
Fluoranthene	100000	1100	U	1000	U	32	J	260	J	99	J	340
Fluorene	100000	1100	U	73	J	400	U	35	J	410	U	32
Hexachlorobenzene	1200	110	U	40	U	40	U	50	U	41	U	46
Indeno(1,2,3-cd)pyrene	500	110	U	340	U	40	U	76	U	37	J	110
Naphthalene	100000	1100	U	400	U	400	U	27	J	410	U	460
Pentachlorophenol	6700	850	U	320	U	320	U	400	U	330	U	370
Phenanthrene	100000	48	J	1400	U	28	J	280	J	73	J	250
Phenol	100000	1100	U	400	U	400	U	500	U	410	U	460
Pyrene	100000	1100	U	2000	U	48	J	350	J	120	J	500
Total Conc	NA	48.0		9306.0		215.0		1958.0		632.0		2431.0
Total Estimated Conc. (TICs)	100000**	93100.0		17870.0		6670.0		31530.0		510.0		21560.0

**Site Specific Soil Cleanup Objectives
*: LCS or LCSD is outside acceptance limits.
J : Indicates an estimated value.
U : Analyzed for but not detected.