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19 September 2018

Mr. Joshua Haugh
Division of Environmental Remediation
New York State Department of Environmental Conservation
1130 N. Westcott Road
Schenectady, New York 12306-2014

RE: Remedial Investigation/Feasibility Study Letter Work Plan Addendum
Contract/Work Assignment No: D007624-38
Admiral Cleaners, Watervliet, New York
Site No. 401075

Dear Mr. Haugh:

This Addendum to the Letter Work Plan[1] provides additional detail for the Phase II field investigation activities for the remedial investigation (RI) at the Admiral Cleaners Site (Number [No.] 401075) (Site) in the City of Watervliet, Albany County, New York (Figure 1). EA Engineering, P.C. and its affiliate EA Science and Technology (EA) will complete a supplemental field investigation to install temporary and permanent overburden groundwater monitoring wells, collect subsurface soil samples and surface soil samples.

Under this Addendum, EA will mobilize to the Site and collect surface soil samples from 4 locations, complete up to 11 subsurface soil borings as presented in Figure 2, and install 11 groundwater monitoring wells. Six soil borings will be converted to 1-inch (in.) prepacked temporary groundwater monitoring wells and 5 soil borings will be converted to 2-inch groundwater monitoring wells. The drilling subcontractor, AzTech Technologies, Inc. (AzTech) of Ballston Spa, New York, will be responsible for contacting Dig Safely New York and identifying any subsurface utility lines in locations where soil borings will be completed in addition to acquiring any permits required. Additionally, for boring locations within five feet of subsurface utilities and those located on private property, AzTech will hand clear locations using an air knife or hand tools.

Field activities will be completed in accordance with this Addendum and the Letter Work Plan including Attachment A (EA's Generic Field Activities Plan); Attachment B (site-specific Health and Safety Plan [HASP]; and Attachment C (site-specific Quality Assurance Project Plan [QAPP]). Additional tasks and any deviations to the Letter Work Plan,[1] are described in the following sections.

REMEDIAL INVESTIGATION PHASE II

The following is a brief description of the tasks, which are scheduled be completed under Phase II of the RI:

[1] EA. 2018. *Remedial Investigation/Feasibility Study Letter Work Plan.* March

- ***Evaluation of Onsite Surface Soil***—AzTech will advance 5 soil borings to 2 feet (ft) below ground surface (bgs) to further delineate the nature and extent of impacts of source area surface soil. Samples will be collected from the 0–12-in. and 12–24-in. interval. Surface soil samples will be submitted to Con-Test Analytical Laboratory (Con-Test) and analyzed for the full list of potential contaminants (i.e., target compound list [TCL] volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), TCL polychlorinated biphenyls [PCBs], TCL pesticides, and target analyte list [TAL] inorganics).

- ***Evaluation of Subsurface Soil***—AzTech will advance 11 soil borings to refusal to further delineate the nature and extent of impacts of source area subsurface soil, using direct-push drilling techniques. EA will collect soil samples from the interval directly above the groundwater interface at each soil boring location. Soil samples will be submitted to Con-Test and analyzed for TCL VOCs.

- ***Evaluation of Soil Vapor—***No additional soil vapor sample locations will be installed during this field investigation phase given the low success rate of soil vapor sampling in Phase I due to soil type and shallow groundwater. Soil vapor intrusion sampling in structures will proceed during the 2018-19 heating season as planned.

- ***Evaluation of Groundwater***—In accordance with Section 4 of the Generic Field Activities Plan (Attachment A to the Letter Work Plan[1]), AzTech will convert 6 soil borings to temporary wells with 1-in. prepacked screens as noted on Figure 2. Additionally, permanent 2-in. overburden monitoring wells will be installed at the remaining 5 soil borings. For 1-in. pre-packed monitoring wells located in concrete and/or asphalt pavement, Az-Tech will use a circular core drill (8-in. or 10-in.) to core through the concrete and complete these borings with 5-in. flush mount curb boxes concreted in place. For 2-in. groundwater monitoring wells, AzTech will use a concrete saw or similar to cut a square (approximately 2 to 4 square ft) and then use augers complete the boring location and install the well and finish the locations with 8-in. flush mount curb boxes concreted in place.

A revised Table 1 of Attachment C – Quality Assurance Project Plan to the Letter Work Plan[1] is provided with this Addendum. This table is updated to reflect the number of samples and analyses collected during Phase I of the RI field investigation, and the proposed number of samples and analyses for Phase II as described in this Addendum.

DECONTAMINATION PROCEDURES AND INVESTIGATION DERIVED WASTE

Non-dedicated equipment and tools used to collect samples for chemical analysis will be decontaminated prior to and between each sample interval in accordance with the Letter Work Plan. Investigation derived waste including personal protective equipment, solids and liquids generated during the well drilling, well development, and well sampling activities, will be stored, handled, and disposed of in accordance with the Letter Work Plan.[1]

HEALTH AND SAFETY CONSIDERATIONS

For locations in the public right-of-way on 19th Street, traffic will be routed around the work area with 36-in. safety cones with connecting stanchions and “Men/Women Working” signs placed a

minimum of 50 ft. prior to the work area. Equipment will be transported across the road with a minimum of two flaggers to direct traffic.

Please feel free to contact me if you have any questions or concerns at (315) 565-6565.

Sincerely yours,
EA SCIENCE AND TECHNOLOGY

Christopher Schroer
Project Manager

EA ENGINEERING, P.C.

Donald F. Conan, P.E., P.G.
Contract Manager

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Figures

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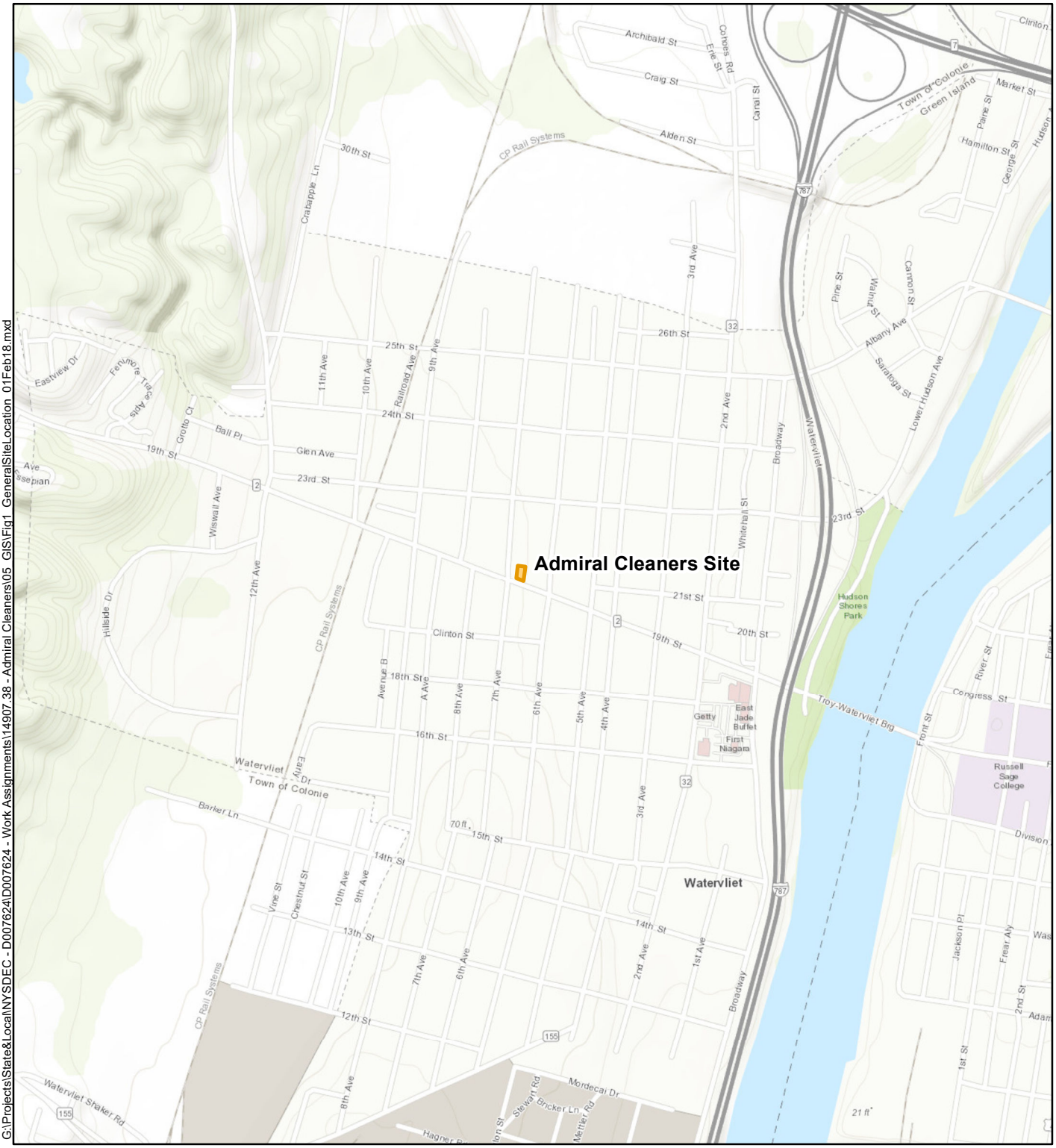

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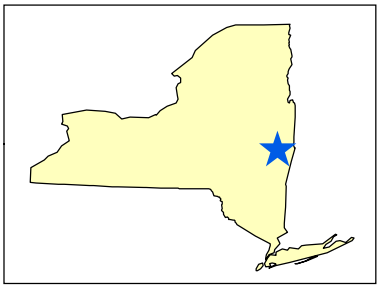

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Legend

- Site Location
- Admiral Cleaners Site Boundary

Figure 1
GENERAL SITE LOCATION
Admiral Cleaners
Watervliet, Albany County, NY

Map Date: 2/1/2018
Projection: NAD 1983 State Plane New York East FIPS 3101 Feet

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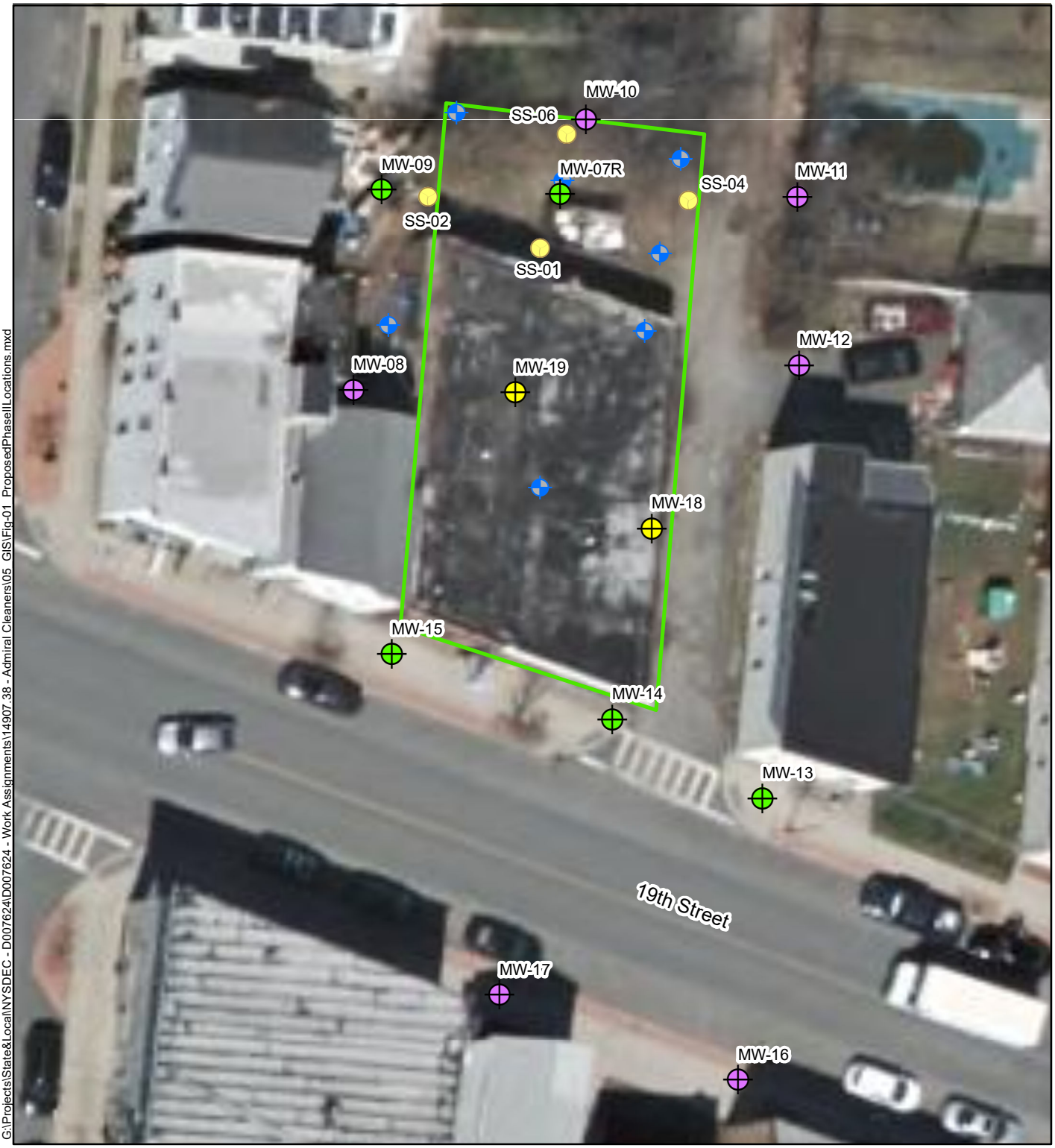

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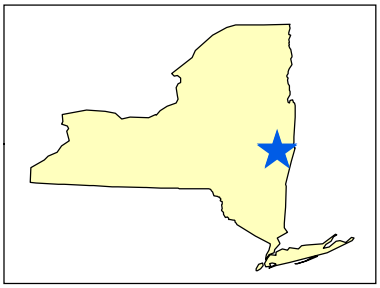

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Feet

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- Admiral Cleaners Site Boundary
- Site Location
- Existing Groundwater Monitoring Well
- Surface Soil Sample Location
- 2-Inch Well Location
- 1-Inch Well Location
- 2-Inch Well (Phase III/TBD)

Figure 2
Proposed Phase II Sampling Locations and Groundwater Monitoring Wells

Admiral Cleaners
Watervliet, Albany County, NY

Map Date: 9/18/2018
Projection: NAD 1983 State Plane New York East FIPS 3101 Feet

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Tables

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Table 1 Soil Vapor Intrusion Evaluation and Remedial Investigation Analytical Program

SOIL SAMPLING								
	Sample Matrix	**VOCs by EPA-8260B**	**SVOCs by EPA-8270C**	**PCBs by EPA-8082**	**PEST by EPA-8081**	**TAL Metals by EPA-6010B**	**Percent Moisture**	
SURFACE SOIL/DEBRIS/FLOOR DRAINS (PHASE I Actual)								
No. of Samples	Surface Soil	13	13	13	8	13	13	Pesticides for surface soil samples only.
Field Duplicate		1	1	1	1	1	—	
Trip Blank/Rinse Blank		1	—	—	—	—	—	
Matrix Spike/Matrix Spike Duplicate		2	2	2	2	2	—	
Total No. of Analyses		**17**	**16**	**16**	**11**	**16**	**13**	
SUBSURFACE SOIL (PHASE I Actual)								
No. of Samples	Subsurface Soil	20	17	17	3	17	20	
Field Duplicate		1	1	1	1	1	—	
Trip Blank/Rinse Blank		1	—	—	—	—	—	
Matrix Spike/Matrix Spike Duplicate		2	2	2	2	2	—	
Total No. of Analyses Phase I		**24**	**20**	**20**	**6**	**20**	**20**	
SURFACE SOIL (PHASE II)								
No. of Samples	Subsurface Soil	8	8	8	8	8	8	
Field Duplicate		1	1	1	1	1	—	
Trip Blank/Rinse Blank		1	—	—	—	—	—	
Matrix Spike/Matrix Spike Duplicate		2	2	2	2	2	—	
Total No. of Analyses Phase II		**12**	**11**	**11**	**11**	**11**	**8**	
SUBSURFACE SOIL (PHASE II)								
No. of Samples	Subsurface Soil	11	No Additional Samples				11	
Field Duplicate		1	—	—	—	—	—	
Trip Blank/Rinse Blank		1	—	—	—	—	—	
Matrix Spike/Matrix Spike Duplicate		2	—	—	—	—	—	
Total No. of Analyses Phase II		**15**	**0**	**0**	**—**	**0**	**11**	

GROUNDWATER SAMPLING												
	Sample Matrix	**VOCs by EPA-8260B**	**SVOCs by EPA-8270C**	**PCBs by EPA-8082**	**Pesticides by EPA-8081**	**TAL Metals by EPA-6010B**		**PFCs by EPA 537**	**1, 4-Dioxane by EPA 8270 SIM**	**Major Anions**	**TOC**	**Dissolved Gases**
GROUNDWATER GRAB SAMPLES (PHASE I ACTUAL)												
No. of Samples	Groundwater	5										
Field Duplicate		1										
Trip Blank/Rinse Blank		1										
Matrix Spike/Matrix Spike Duplicate		2										
Total No. of Analyses Phase I		**9**										
GROUNDWATER (PHASE I ACTUAL)												
No. of Samples	Groundwater	6	7	5	5	5	—	—	—	—	—	—
Field Duplicate		1	1	1	1	1	—	—	—	—	—	—
Trip Blank/Rinse Blank		2	—	—	—	—	—	—	—	—	—	—
Matrix Spike/Matrix Spike Duplicate		2	2	2	2	2	—	—	—	—	—	—
Total No. of Analyses Phase I		**11**	**10**	**8**	**8**	**8**	—	—	—	—	—	—
GROUNDWATER (PHASE II)												
No. of Samples	Groundwater	17	—	—	—	—	—	6	3	3	3	9
Field Duplicate		1	—	—	—	—	—	1	1	0	0	0
Trip Blank/Rinse Blank		2	—	—	—	—	—	0	1	0	0	0
Matrix Spike/Matrix Spike Duplicate		2	—	—	—	—	—	2	2	0	0	0
Total No. of Analyses Phase II		**22**	—	—	—	—	—	**9**	**7**	**3**	**3**	**9**

SOIL VAPOR AND AMBIENT AIR SAMPLING (ROUND I) Nine Structures & Resample as Needed			
	Sample Matrix	**VOCs by TO-15**	**VOCs by TO-15SIM**
Indoor Air	Soil Vapor	0	14+ 9
Sub-slab Air		5 + 3	0
Outdoor Air		0	2 + 2
Soil Vapor Point		0	0
Subtotal No. of Samples		8	27
Field Duplicate		0	2
Matrix Spike/Matrix Spike Duplicate		0	0
Total No. of Analyses Phase I		**8**	**29**
SOIL VAPOR AND AMBIENT AIR SAMPLING (ROUND II) Up to 18 Structures			
Indoor Air	Soil Vapor	0	18
Sub slab Air		18	0
Outdoor Air		0	3
Soil Vapor Point		0	0
Subtotal No. of Samples		18	0
Field Duplicate		1	2
Matrix Spike/Matrix Spike Duplicate		0	0
Total No. of Analyses Phase I		**19**	0
Total No. of Air Analyses		**27**	**23**

NOTES:
VOC = Volatile organic compounds
SVOC = Semi-volatile organic compounds
PCB = Polychlorinated biphenyls
PEST = Pesticides
PFC = Perfluorinated chemicals
TAL Metals = Target Analyte List metals including mercury by EPA Method 7470A/7471A, and cyanide by EPA Method 9010B
TOC = Total Organic Carbon
SIM = Selected Ion Monitoring
Dash (—) indicates no sample taken
Laboratory quality control samples will be collected at a rate of 1 per 20 samples per matrix
Rinse Blanks are collected one per analysis per field sampling day

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