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Mr. Dean Brammer
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RE: Letter Report, Soil Vapor Intrusion Investigation, Second Round
Former Scotia Naval Depot Project
Glenville, New York

Contract No. W912WJ-11-D-0001
CENAE Project Number: 397651
SEI No. 102305-R-C / Task 12G

Dear Mr. Brammer :

This Soil Vapor Intrusion Investigation Letter Report (Report) has been prepared by Stone Environmental, Inc. (Stone) to document soil vapor intrusion (SVI) investigation activities and results at and near the former Defense National Stockpile Center Scotia Depot Site (the "Site") in Glenville, New York (Figure 1). Stone Environmental completed this work under a performance-based contract with the United States Army Corps of Engineers (USACE), New England District (CENAE), and under an Interagency Agreement between USACE, New York District (CENAN) with the General Services Administration (GSA). The ultimate goal of the SVI investigation under this Task Order is to collect sufficient data to meet the requirements for SVI investigations prescribed in the New York State Department of Environmental Conservation (NYSDEC) March 2010 Record of Decision (ROD) for the project. This Report supplements the *Soil Vapor Intrusion Investigation Report*, dated 27 January 2014, which summarized the results of sub-slab soil vapor and indoor air sampling performed in April 2013.

1.0 TASK SCOPE AND OBJECTIVES

The tasks described in the *Project Plan (PP)* and *Field Sampling Plan (FSP)* were designed to eliminate the identified data gaps and collect the data necessary to support the design of the selected remedy for the project. Data gaps regarding the location of the trichloroethene (TCE) plume and design of the permeable reactive barrier to intercept it were addressed in the *Pre-Design Investigation Report*, dated 16 December 2013. The SVI field tasks described below are based on changes to the *Scope of Work (SOW)* under Modification 07, requesting a second round of sub-slab soil vapor and indoor air sampling and reporting, dated 24 January 2014.

The objectives of the SVI investigation are to:

1. Perform SVI investigations, pursuant to the ROD, associated with the carbon tetrachloride (CT) and trichloroethene (TCE) plumes, including:
    a. Confirm the sub-slab soil gas and indoor air results from samples collected in April 2013 for the 200-block buildings;
    b. Evaluation of the potential risk associated with SVI for the onsite buildings; and
2. Use the SVI data to evaluate the need for monitoring or mitigation, using the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

2.0 INVESTIGATIVE ACTIVITIES

Using the process described in Section 1, the SVI investigation field tasks were developed to address the data gaps identified in the *ROD*. Section 2 of the *FSP* provided detailed descriptions of the field task methodologies. Data quality objectives (DQOs), which further detail the objectives for each field task, are described in Subsection 6.1 of the *Project Plan*, as well as in *Quality Assurance Project Plan* Worksheet #16.

2.1 Pre-Sampling Building Survey and Inventory

During the second round of sampling, Stone determined that the tenant that had been in Building 201 in 2013 had vacated the premises, and the building was vacant during the 2014 sampling, and that a new tenant occupied the western end of Building 202, which was vacant during the 2013 sampling. Stone interviewed the occupants of Building 202, in cooperation with the property owner, to gather information regarding potential alternative sources of indoor air contamination. Copies of the information regarding hazardous materials provided are included in Attachment A.

2.2 Sub-Slab Soil Vapor Intrusion Sampling

The 2014 SVI sampling was performed to replicate the 2013 SVI sampling in the 200-block buildings. Based on USEPA, DoD, and NYSDOH SVI guidance, and following consultation with GSA, CENAN, CENAE, and NYSDEC/NYSDOH personnel, Stone collected a total of 25 sub-slab and indoor air samples (including duplicate sub-slab soil vapor and indoor air samples and background ambient air samples) to evaluate the possibility of SVI, from 11 sub-slab soil vapor sample locations, 10 indoor air sample locations, and a background ambient outdoor air sample location. Sample collection was performed under "conservative" conditions (e.g., windows and doors closed, heating, ventilating in operation, to the extent possible). The sampling was performed during the heating season, as defined by NYSDOH, with overnight ambient temperature lows between 2° and 20° Fahrenheit. The samples were collected from Buildings 201, 202, 203, and 204, which are slab-on-grade industrial buildings. Table 1 summarizes the samples collected, and Figure 2 depicts the sample locations. Field records for sub-slab and indoor air sampling are included in Attachment B.

Table 1: Summary of Sub-Slab Soil Vapor Intrusion Samples

Sample Location	Sample ID	Sample Date	Sample Times	Sample Depth	Location
SV05 / IA05	SV05-1-B	3/6/2014	08:38 to 16:55	1 ftbgs	North-central portion of Building 201, vacant office area
	IA05-1-B	3/6/2014	08:39 to 16:50	3 ftags	
SV06 / IA06	SV06-1-B	3/6/2014	08:56 to 16:30	1 ftbgs	Western portion of Building 201, vacant
	SV06-1-B-FD	3/6/2014	08:56 to 16:30	1 ftbgs	
	IA06-1-B	3/6/2014	09:05 to 16:22	3 ftags	
	IA06-1-B-FD	3/6/2014	09:05 to 16:22	3 ftags	
SV07 / IA07	SV07-1-B	3/6/2014	09:28 to 16:40	1 ftbgs	Eastern portion of Building 201, vacant
	IA07-1-B	3/6/2014	09:18 to 16:38	3 ftags	
SV08 / IA08	SV08-1-B-REDO	3/6/2014	11:19 to 18:06	1 ftbgs	North-central portion of Building 203, office area
	IA08-1-B	3/5/2014	09:20 to 16:01	3 ftags	
SV09 / IA09	SV09-1-B	3/5/2014	09:51 to 16:40	1 ftbgs	Western portion of Building 203, manufacturing area
	IA09-1-B	3/5/2014	09:53 to 16:43	3 ftags	
SV10 / IA10	SV10-1-B-REDO	3/6/2014	10:48 to 13:20	1 ftbgs	Southeastern corner of Building 203, manufacturing area
	IA10-1-B	3/5/2014	10:06 to 17:09	3 ftags	
SV11 / IA11	SV11-1-B	3/6/2014	09:13 to 12:12	1 ftbgs	South-central portion of Building 202, office area
	IA11-1-B	3/6/2014	08:35 to 16:00	3 ftags	

Sample Location	Sample ID	Sample Date	Sample Times	Sample Depth	Location
SV12 / IA12	SV12-1-B IA12-1-B	3/6/2014 3/6/2014	09:58 to 16:50 09:28 to 16:53	1 ftbgs 3 ftags	Northeast portion of center bay of Building 202, vacant
SV13	SV13-1-B-REDO	3/6/2014	11:37 to 17:05	1 ftbgs	Western end of Building 204, machine shop
SV14 / IA14	SV14-1-B-REDO IA14-1-B	3/6/2014 3/5/2014	12:00 to 17:25 08:55 to 13:36	1 ftbgs 3 ftags	Southeast corner of Building 204, vacant area
SV15 / IA15	SV15-1-B IA-15-1-B	3/5/2014 3/5/2014	09:20 to 16:53 09:20 to 16:52	1 ftbgs 3 ftags	Southwest corner of Building 204, office area
IABG-1-B	IABG-1-B	3/5/2014	08:50 to 17:22	3 ftags	Tree west of alley between Buildings 203 and 204.
IABG-2-B	IABG-2-B	3/6/2014	08:05 to 15:43	3 ftags	Next to previous 2013 background sample location AR16/AR17.

Samples with a "SV" prefix are sub-slab soil vapor samples; samples with an "IA" prefix are indoor air samples.
ftbgs: feet below ground surface
ftags: feet above ground surface

2.3 Sub-Slab Pressure Differential Measurement

Upon installation of the soil gas port, the differential pressure between the sub-slab interstices and ambient building air was measured using a TSI Model 9555 digital manometer. After turning on the manometer, the instrument was "zeroed" to ambient indoor air. Once zeroed, the sample line was attached to the manometer. The unit was allowed to equilibrate, and the reading in inches of water column equivalent ("WC") was recorded on the field form. CENAE also requested post-sampling differential pressure measurements during the sampling activity, which were recorded at some of the locations, using the same methodology, post-sampling. The results are included in in Subsection 4.2, Table 3.

2.4 Sub-Slab Soil Vapor Sample Collection

A ⅜-inch diameter hole was drilled in the slab using a rotary hammer drill to a depth of 12-inches below ground surface. Once at depth, a section of ¼-inch outside diameter (OD) fluorinated ethylene propylene (FEP) tubing of sufficient length to reach sampling apparatus on the surface was inserted into the borehole. The annular space between the tubing and borehole was filled using silica sand to approximately 2-inches below the surface of the borehole. The annular space at the surface was sealed using VOC-free "plumber's putty" or modeling clay.

Following installation, the sample train was connected to the handheld PID, and one to three sample train volumes were purged prior to sample collection. Peak PID readings during the purge were recorded on field forms. Carbon dioxide and oxygen concentrations were then measured using a MultiRAE Plus multigas meter.

After installation of the sample port and field screening, leak testing was performed at each of the sampling locations to demonstrate that the sampling system did not allow for short circuiting to occur between the ambient air and the sampling train.

The leak test procedure was as follows:

1. Turn on helium detector to allow the unit to warm up.
2. Purge sample train by connecting PID to sample side of the leak testing pail using Tygon tubing.
3. Allow unit to draw sample train air for 4 minutes.
4. Record peak value on field form.
5. Measure CO_2/O_2 concentrations with CO_2/O_2 meter and record value on field form.

6. Connect helium detector to the sample side of leak testing bucket.
7. Connect the sample train tubing to the sample side of the leak test pail.
8. Connect helium regulator to open port of leak test pail.
9. Allow helium detector to purge sample train of ambient air (5 minutes).
10. Turn on helium until gas is heard escaping from the bottom of the pail.
11. Check for leaks in sample train, as indicated by positive readings on the helium detector.

No helium was detected at any of the sub-slab soil vapor sampling locations prior to sampling, confirming that the points were properly installed and ready for sampling.

Following successful leak testing, the FEP tubing was connected to a laboratory-certified (batch) clean Summa® canister. The flow control regulator (preset by the laboratory) on the canister was opened, and the start time and initial pressure were recorded on sampling form. The sample locations were checked periodically to verify remaining vacuum. At the end of the sampling period (8 hours in the 200-block buildings, 30 minutes in the 400-block buildings), the time and final pressure were recorded and the regulator valve was shut off. Tubing was removed from the borehole and the borehole was sealed to surface with quick-setting concrete.

Helium was detected during post-sampling testing at four of the sub-slab soil vapor sampling locations on the first day of sampling (SV08, SV10, SV13, and SV14), indicating that short-circuiting may have occurred during sampling. Stone believes the plumber's putty used to seal the sample tubing contracted due to the cold, resulting in a loss of seal at these locations. On the second day of sampling, Stone changed the material used to seal the sample tubing to the slab from plumber's putty to modeling clay, to improve the seal. On the second day of sampling, Stone resampled the four sub-slab locations with potential short-circuiting on the first day of sampling. No helium was detected at the sub-slab soil vapor sampling locations on the second day of sampling, pre- or post-sampling. Upon consultation with CENAE, Stone selected the sub-slab samples collected on the second day (designated "REDO") for analysis.

For quality control, duplicate sub-slab soil vapor samples were collected at location SV06, by splitting the FEP tubing to two separate Summa canisters. A laboratory-certified clean, unopened Summa canister was also sent with the samples as a trip blank sample. Sample collection data were recorded on field sheets, included in Attachment B.

2.5 Indoor Air Sample Collection

Sample collection comprised positioning a sub-atmospheric laboratory-certified clean Summa® canister within each zone of interest approximately 3 feet off the ground. Each canister was fitted with a flow controller (preset by the laboratory) and allowed to acquire a sample for 8 hours. Initial and final vacuum gauge readings were recorded at the beginning and end of the 8-hour period. The sample locations were checked periodically to verify remaining vacuum. At the end of the sampling period, the regulator valve was shut off. For quality control, duplicate indoor air samples were collected at location IA06 by setting two separate Summa® canisters next to each other for the same sampling period. Sample collection data were recorded on field sheets, included in Attachment B. It should be noted that indoor air samples were collected from Buildings 202, 203, and 204 during a workday, during which interior and exterior doors were regularly opened, which has the potential to confound the indoor air sample results. However, no apparent effect was noted in the analytical results, as will be discussed in Subsection 4.3.

2.6 Ambient Air Background Sample Collection

An ambient air sample was collected on each sampling day (5 and 6 March 2014), west and upwind of Buildings 203 and 204 (5 March), and 201 and 202 (6 March), to serve as the onsite background samples for the buildings. These samples were collected from a similar height as indoor air samples.

2.7 Air Sample Analysis

Based on the results of the 2013 sampling, and in consultation with GSA, CENAN, CENAE, and NYSDEC/NYSDOH personnel, the SVI samples were analyzed for a reduced list of VOCs (Carbon tetrachloride (CT); Tetrachloroethene (PCE); Trichloroethene (TCE); cis-1,2-dichloroethene (cis-1,2-DCE); trans-1,2-dichloroethene (trans-1,2-DCE); Vinyl chloride (VC); 1,1,2,2-Tetrachloroethane (1,1,2,2-TeCA); 1,1,1-Trichloroethane (1,1,1-TCA); 1,1,2-Trichloroethane (1,1,2-TCA); 1,1-Dichloroethene (1,1-DCE); Chloroform; Chloromethane, and Dichloromethane). The samples were analyzed via EPA Toxic Organic (TO) Method 15, using selective ion monitoring (SIM) analysis by Alpha Analytical Laboratory, which meets Method T0-15 laboratory certification requirements specified by NYSDOH and is accredited for Method T0-15 according to the DoD Environmental Laboratory Accreditation Program (ELAP). The analytical results are discussed in Section 4. The complete laboratory data package is included in Attachment C.

3.0 QUALITY ASSURANCE SUMMARY

3.1 Objectives of the Soil Vapor Intrusion Investigation

In accordance with the March 2013 *Final Pre-Design Investigation Project Plan* and *Field Sampling Plan*, quality control measures were implemented to ensure that the data met the data quality objectives and provide a sound basis from which remedial options can later be evaluated for the project. These measures included field duplicate samples and a trip blank Summa® canister, quality assurance reviews of field methods, field calibration and data, and laboratory analytical results.

Minor deviations to specified field methods occurred, such as the designation of indoor air samples as "IA" rather than "AR" as called for in the *FSP*. The only non-minor deviation from the *FSP* was due to the failure of the sub-slab tubing seal at four sample locations. As described in Subsection 2.4, helium was detected during post-sampling testing at four of the sub-slab soil vapor sampling locations on the first day of sampling (SV08, SV10, SV13, and SV14), indicating that short-circuiting may have occurred during sampling. Stone believes the plumber's putty used to seal the sample tubing contracted due to the cold, resulting in a loss of seal at these locations. On the second day of sampling, Stone changed the material used to seal the sample tubing to the slab from plumber's putty to modeling clay, to improve the seal. On the second day of sampling, Stone resampled the four sub-slab locations with potential short-circuiting on the first day of sampling. No helium was detected at the sub-slab soil vapor sampling locations on the second day of sampling, pre- or post-sampling. Upon consultation with CENAE, Stone selected the sub-slab samples collected on the second day (designated "REDO" for analysis.

The air VOC analytical results were validated in conformance with Tier II (Stage 2b electronic and manual for calibrations) guidelines as defined by EPA Region I, *Region I EPANE Data Validation Functional Guidelines for Evaluating Environmental Analyses*, March 1996 and the laboratory standard operating procedure. *EPA's National Functional Guidelines for Organic Data Review* (EPA 540/R-99/008, 10/99) was also considered during the evaluation, professional judgment was applied as necessary and appropriate, and the data were found to be 100% useable, with qualifications as noted below. The validated analytical results are summarized in Tables C-1 and C-2 of Attachment C, which also includes the laboratory data packages and the data validation narrative. In these tables, two qualifiers are used: "U" denotes that the compound was not detected;

"J" denotes that the value is estimated. Data validation issues regarding the quality of the laboratory analytical results are summarized below, which resulted in estimated results:

- Due to detection of methylene chloride in the trip blank sample, results for methylene chloride in samples IA07-1-B, IA08-1-B, IA11-1-B, IA12-1-B, IA14-1-B, IA15-1-B, SV09-1-B, SV13-1-B-REDO, SV14-1-B-REDO, and SV15-1-B detected below the reporting limit were qualified as less than the reporting limit (qualified with a "U" flag).
- Samples SV07-1-B, SV08-1-B-REDO, SV12-1-B and WG677306-5 Duplicate were diluted and re-analyzed to quantify the samples within the calibration range for CT and in sample SV13-1-B-REDO for TCE. The original (undiluted) results for CT in SV07-1-B, SV08-1-B-REDO, and SV12-1- B, and the undiluted result for trichloroethene in SV13-1-B-REDO were rejected (R) due to detection of these compounds outside the linear range of the instrument (qualified with an "E" flag). Results for these compounds were replaced with the acceptable concentrations from the diluted analysis of these samples.

4.0 RESULTS AND CONCLUSIONS

This section provides the results of the 2014 SVI investigation. The results are primarily provided in tabular form and on figures.

4.1 Pre-Sampling Building Survey and Inventory Review

Buildings 201 through 204 are approximately 600 ft long, 200 ft wide, and 40 ft tall warehouses. Buildings 201 through 204 were originally a single open space, but have been subdivided by their tenants into work areas and office areas as shown in Figure 2.

Stone obtained a list of hazardous materials used in Building 202 (see Attachment A) to identify products which contain CT; 1,1,1-TCA; PCE; and TCE in Building 202. Table 2 summarizes the products in Buildings 202, 203, and 204 that contain VOCs that were included in the air sample analyses; Building 201 is currently vacant and contained no products of any kind. The findings from previous surveys of Buildings 203 and 204 are also included in Table 2. The complete Pre-Sampling Building Survey and Inventory forms for Buildings 201, 203, and 204 from 2013 can be found in the 2013 *SVI Investigation Report*.

Table 2: Summary of VOCs Present in Products in Buildings

Analyte	Building 202	Building 203	Building 204
1,1,1-Trichloroethane	No	No	Anti-seize compound
1,1,2,2-Tetrachloroethane	No	No	No
1,1,2-Trichloroethane	No	No	No
1,1-Dichloroethene	No	No	No
Carbon tetrachloride	No	No	No
Chloroform	No	No	No
Chloromethane	No	No	No
cis-1,2-Dichloroethene	No	No	No
Dichloromethane (Methylene chloride)	Loctite Chisel Paint Stripper, Jasco Premium Paint & Epoxy Remover	No	No
Tetrachloroethene	No	Brake cleaner, Waist	No

Analyte	Building 202	Building 203	Building 204
		Solvent/Paints	
trans-1,2-Dichloroethene	No	No	No
Trichloroethene	No	Brake cleaner	No
Vinyl chloride	No	No	No

Table 2 shows that 1,1,1-TCA; TCE; and PCE are used in one or more of the buildings and may present an alternative source of VOCs, particularly in indoor air samples. In summary:

- no products containing CT were observed in any of the buildings;
- 1,1,1-TCA-containing products were observed in Building 204; and,
- TCE- and PCE-containing products were observed in Building 203.

4.2 Pressure Differential Measurements

As discussed in Section 2.3, prior to and following (at a subset of locations) sub-slab soil gas sampling, Stone measured the pressure differential at each sub-slab soil gas sampling location, using a differential pressure gage. Table 3 summarizes the pre- and post-sampling differential pressures measured.

Table 3: Summary of Sub-Slab / Indoor Air Pressure Differentials

Location ID	Date	Pre-Sampling Pressure Differential[1] (inches water)	Post-Sampling Pressure Differential[1] (inches water)
SV05	3/5/2014	0.001	0.001
SV06	3/6/2014	0.003	0.004
SV07	3/6/2014	-0.027	0.002
SV08	3/4/2014	-0.006	0.000
SV09	3/4/2014	-0.001	NM
SV10	3/4/2014	-0.011	0.005
SV11	3/5/2014	0.004	-0.001
SV12	3/6/2014	-0.109	0.002
SV13	3/4/2014	-0.025	NM
SV14	3/4/2014	2.882*	NM
SV15	3/4/2014	-0.013	NM

NM: Not measured

1 – Negative values denote lower sub-slab pressure; positive values denote lower indoor air pressure.

*Regarding the high pressure differential observed at location SV14, Stone notes that the result was noted as extraordinary and double-checked at the time, and was replicated. Further, subsequent readings with the differential pressure gage, including the reading at SV15, 20 minutes later, fell within the same range as previous ones, excluding the possibility of malfunctioning of the gage. The large pressure differential between the occupied and vacant ends of the building, evidenced by the bowing of the plastic sheeting that separates them, is a possible explanation for this result.

4.3 Soil Vapor Intrusion Results

Based on USEPA, DoD, and NYSDOH SVI guidance, and following consultation with GSA, CENAN, CENAE and NYSDEC/NYSDOH personnel, under Subtask 12B, Stone collected a total of 25 sub-slab soil vapor and indoor air samples to evaluate the possibility of SVI, 12 samples from 11 sub-slab soil vapor sample

locations, 11 samples from10 indoor air sample locations, and two, daily background ambient outdoor air sample locations, under conservative conditions (e.g., windows and doors closed, heating, ventilating, and/or air conditioning in operation, to the extent possible). The samples were collected from Buildings 201, 202, 203, and 204, which are slab-on-grade industrial buildings. Table 4 summarizes the field screening parameters recorded during the collection of the sub-slab soil vapor samples.

Table 4: Summary of Sub-Slab Soil Vapor Sample Parameters

Location ID	Date	Soil Headspace (ppm)[1]	Carbon Dioxide (ppm)	Oxygen (%)
SV05	3/5/2014	1,200	0	19.8
SV06	3/6/2014	0.9	0.0	19.9
SV07	3/6/2014	5.3	0.0	20.3
SV08	3/5/2014	38.6	NR	NR
SV08-REDO	3/6/2014	38.6	NR	NR
SV09	3/4/2014	0.0	6.0	19.9
SV10	3/4/2014	0.5	5.0	20.0
SV10-REDO	3/6/2014	0.9	2.0	20.0
SV11	3/5/2014	15.4	0.0	20.4
SV12	3/6/2014	0.0	0.0	18.6
SV13	3/4/2014	8.0	0.0	18.8
SV13-REDO	3/6/2014	16.8	0	18.6
SV14	3/4/2014	0.4	0.0	20.9
SV14-REDO	3/6/2014	2.9	0.0	20.6
SV15	3/4/2014	0.8	0.0	20.7

NR: Not recorded
ppm: Parts per million volume
%: percent

1 – Soil headspace is the photoionization detector reading indicating potential VOCs.

Based on the results of the 2013 sampling, and in accordance with the *SOW* provided by CENAE/CENAN, the sub-slab soil vapor and indoor air samples were analyzed for a reduced list of VOCs (CT; PCE; TCE; cis-1,2-DCE; trans-1,2-DCE; VC; 1,1,2,2-TeCA; 1,1,1-TCA; 1,1,2-TCA; 1,1-DCE; Chloroform; Chloromethane, and Dichloromethane) via EPA Method TO-15. The validated analytical results are summarized in Tables C-1 and C-2 of Attachment C, which also includes the laboratory data packages and the data validation narrative.

None of the indoor air sample results exceeded NYSDOH chemical-specific air guideline values, which are only available for the following COCs: PCE (100 micrograms per cubic meter ($\mu g/m^3$)) and TCE (5 $\mu g/m^3$) (NYSDOH, 2006).

4.4 Interpretation of Soil Vapor Intrusion Results

4.4.1 Nature and Extent of Soil Vapor Intrusion Impacts

Based on the available groundwater analytical results, and as specified in the ROD, the primary contaminants of concern at the Site are CT; 1,1,1-TCA; PCE; TCE; as well as their breakdown products. Figure 3 depicts the current understanding of the extent of the groundwater plumes that are the apparent source of soil vapor

intrusion at the Site, based on a synthesis of groundwater data obtained by Stone during a February 2013 synoptic groundwater sampling round and the vertical groundwater profiling data collected during February and March 2013. At least three separate plumes are depicted: CT to the north, PCE / 1,1,1-TCA in the center, and TCE on the south; all three plumes overlap along their margins. The detections of dissolved 1,1,1-TCA are collocated with PCE, suggesting a common source, since 1,1,1-TCA is not a degradation product of PCE or TCE, as noted in the *Pre-Design Investigation Report*.

4.4.1.1 Nature and Extent of Sub-Slab Soil Vapor Contamination

The nature and extent of the COCs CT; 1,1,1-TCA; PCE; and TCE in sub-slab soil vapor are depicted in Figures 4, 5, 6, and 7 respectively. The figures also depict the currently understood groundwater plume extents, and provide a basis for the comparison of groundwater plume and sub-slab soil vapor extents for each COC.

Figure 4 depicts the CT groundwater plume and the distribution of CT in sub-slab soil vapor. It appears that the elevated CT sub-slab soil vapor concentrations noted at locations SV07, SV08, SV09, SV11, SV12, and SV14 correlate with the interpreted location of the CT groundwater plume.

Figure 5 depicts the 1,1,1-TCA groundwater plume and the distribution of 1,1,1-TCA in sub-slab soil vapor. It appears that the most elevated 1,1,1-TCA sub-slab soil vapor concentrations noted at locations SV08, SV09, SV11, and SV12 do not correlate with the interpreted location of the 1,1,1-TCA groundwater plume, but lie to the north of it. The lack of 1,1,1-TCA detections in well MW-12, which lies between locations SV08, SV09, SV11, SV12, and monitoring well MW-5 (which constrains the plume to the southwest), suggests either that there are alternate, shallow sources of 1,1,1-TCA in sub-slab soil vapor, or that there is substantial migration of sub-slab soil vapor. MW-5 and MW-12 are water table wells which may not reflect greater groundwater 1,1,1-TCA concentrations at depth, however they should accurately reflect 1,1,1-TCA concentrations in the shallowest portion of the aquifer, which is the source of sub-slab soil vapor.

Figure 6 depicts the PCE groundwater plume and the distribution of PCE in sub-slab soil vapor. The highest PCE sub-slab soil vapor concentrations do not follow a distinct pattern, and only the elevated PCE sub-slab soil vapor concentrations noted at locations SV13 and SV14 correlate with the interpreted location of the PCE groundwater plume, which is interpreted to flow beneath the southeast corner of Building 203 and the center of Building 204. The elevated PCE result for samples SV06 suggests either that there are alternate, shallow sources of PCE in sub-slab soil vapor, or that there is substantial sub-slab migration of sub-slab soil vapor.

Figure 7 depicts the TCE groundwater plume and the distribution of TCE in sub-slab soil vapor. It appears that the elevated TCE sub-slab soil vapor concentrations noted at locations SV10 and SV14 correlate with the location of the TCE groundwater plume, which in interpreted to flow beneath the eastern end of Building 204. In contrast, the highest TCE sub-slab soil vapor concentration was detected at location SV13, which is more distant from the TCE groundwater plume. The concentration of TCE detected in sub-slab soil vapor at location SV13 (1,630 µg/m^3) is 12 times the next highest sub-slab soil vapor TCE concentration (132 µg/m^3), noted at SV10, which is the closest sub-slab location to the TCE groundwater plume. However, using an equilibrium Henry's law approach to back-calculating the groundwater concentration necessary to produce an equilibrium sub-slab soil vapor concentration of 1,630 µg/m^3 results in a groundwater TCE concentration of 4.3 µg/L, which is consistent with the interpretation of the current groundwater plume in this area. These observations suggest that the elevated concentrations noted at location SV13, may be related to the TCE groundwater plume, but do not explain why locations closer to the plume centerline, particularly SV14, do not have higher sub-slab soil vapor concentrations. The TCE result for samples SV06 and SV11 suggest either that there are alternate, shallow sources of TCE in sub-slab soil vapor, or that there is substantial sub-slab migration of sub-slab soil vapor.

Comparing the sub-slab soil vapor parameters (CO_2 and O_2) measured with field screening instruments (see Table 3) with the occurrence of elevated sub-slab VOC concentrations, the markedly low O_2 or elevated CO_2 readings recorded at locations SV09, SV10, SV12, and SV13 support a conclusion that aerobic biodegradation of organic compounds in the sub-slab environment is occurring. These compounds may be contaminants released from the building other than the chlorinated VOCs assessed in this investigation, as these chlorinated VOCs are generally not aerobically biodegradable.

The sub-slab soil vapor results from March 2014 are generally similar to those of April 2013, indicating that the sub-slab conditions are relatively stable. Sub-slab soil vapor concentration data are notoriously variable, even over short periods of time or short distances. Thus, though there are only two rounds of sample results, the consistency of the data is notable, and is considered sufficient for decision making regarding SVI potential at the buildings at this time. As the groundwater plumes attenuate over time, the sub-slab soil vapor concentrations should also attenuate.

4.4.1.2 Nature and Extent of Indoor Air Contamination

Carbon tetrachloride, 1,1,1-TCA, PCE, and TCE were detected in five of the 11 of the indoor air samples collected, with CT being detected in all 11 samples and the background samples. Further, VOC concentrations in sub-slab soil vapor generally exceeded those of indoor air samples, by factors ranging from 3 to over 600. Review of the CT; 1,1,1-TCA; PCE; and TCE results in the 10 sub-slab soil vapor / indoor air sample pairs (4 pairs of results [CT; 1,1,1-TCA; PCE; and TCE] at 10 locations equals 40 result pairs) indicates that only 4 of the 40 result pairs showed an indoor air concentration higher than the corresponding sub-slab soil vapor concentration, as follows:

- Trichloroethene in indoor air exceeded the sub-slab soil vapor concentration by 7% at location SV08/IA08, 200% at location SV09/IA09, and by 6,000% at location SV15/IA15.

The results generally support a conclusion that the source of VOCs in indoor air is the sub-slab soil vapor. A summary and implications of the sub-slab soil vapor and indoor air results are included in Subsection 4.4.2.

As with the sub-slab soil vapor results, the indoor air results from March 2014 are generally similar to those of April 2013, indicating that SVI conditions at the buildings are relatively stable. Thus, though there are only two rounds of sample results, the consistency of the data is notable, and is considered sufficient for decision making regarding SVI at the buildings at this time. As the groundwater plumes attenuate over time, SVI should also attenuate.

4.4.2 Evaluation of Need for Response to Sub-Slab Soil Vapor Intrusion Impacts

Consistent with Subsection 5.1.2 of the ROD, the need for responses to the concentrations of VOCs in sub-slab and indoor air analytical results were evaluated using the air guidelines provided in the NYSDOH guidance document titled *Guidance for Evaluating Soil Vapor Intrusion in the State of New York,* dated October 2006. Specifically, the sub-slab and indoor air analytical results were compared to Soil Vapor/Indoor Air Matrix 1 for TCE and CT and Soil Vapor/Indoor Air Matrix 2 for PCE and 1,1,1-TCA. These matrices compare collocated soil vapor and indoor air concentrations, and make one of the five following recommendations based upon the results (NYSDOH, 2006, Subsection 3.4.3):

- <u>No Further Action.</u> The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor

shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.

- Take Reasonable and Practical Actions to Identify Source(s) and Reduce Exposures. The concentration detected in the indoor air sample is likely due to indoor and/or outdoor sources rather than soil vapor intrusion given the concentration detected in the sub-slab vapor sample. Therefore, steps should be taken to identify potential source(s) and to reduce exposures accordingly (e.g., by keeping containers tightly capped or by storing volatile organic compound-containing products in places where people do not spend much time, such as a garage or outdoor shed). Resampling may be recommended to demonstrate the effectiveness of actions taken to reduce exposures.
- Monitor. Monitoring, including the sampling of sub-slab vapor, basement air, lowest occupied living space air, and outdoor air, is needed to determine whether concentrations in the indoor air or sub-slab vapor have changed. Monitoring may also be needed to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined on a site-specific and building-specific basis, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.
- Mitigate. Mitigation is appropriate to minimize current or potential exposures associated with soil vapor intrusion. Methods to mitigate exposures related to soil vapor intrusion are described in Section 4 of the NYSDOH guidance.
- Monitor / Mitigate: Monitoring or mitigation may be recommended after considering the magnitude of sub-slab vapor and indoor air concentrations along with building- and site-specific conditions.

The details of the comparison of the sub-slab soil vapor and indoor air results in the NYSDOH matrix are attached in Attachment D. Table 5 summarizes the results of the comparison of collocated sub-slab soil vapor and indoor air concentrations at each sample location, and indicate the need for responses to the concentrations of VOCs in sub-slab and indoor air analytical results.

Table 5: Summary of the Application of New York State Department of Health Guidance/Decision Matrix for Further Action for Sub-Slab Soil Vapor Intrusion

Location ID	Analyte	Sub-Slab Soil Vapor Concentration (µg/m^3)	Indoor Air Concentration (µg/m^3)	New York State Department of Health Guidance/Decision Matrix Outcome[1]
IA05 / SV05 (Building 201)	1,1,1-Trichlorethane	0.737	0.109 U	No further action
	Carbon Tetrachloride	122	0.673	Monitor / Mitigate
	Tetrachloroethene	0.542 J	0.136	No further action
	Trichloroethene	1.05	0.107 U	No further action
IA06 / SV06 (Building 201)	1,1,1-Trichlorethane	27.3	0.038 J	No further action
	Carbon Tetrachloride	10.1	0.692	Monitor
	Tetrachloroethene	3.44	0.068 J	No further action
	Trichloroethene	2.82	0.107 U	No further action
IA07 / SV07 (Building 201)	1,1,1-Trichlorethane	1.39	0.109 U	No further action
	Carbon Tetrachloride	1,120	2.64	Mitigate
	Tetrachloroethene	0.868	0.258	No further action
	Trichloroethene	0.349	0.107 U	No further action
IA08 / SV08 (Building 203)	1,1,1-Trichlorethane	862	0.737	Monitor
	Carbon Tetrachloride	3,270	2.65	Mitigate
	Tetrachloroethene	0.678	0.292	No further action
	Trichloroethene	0.699	0.752	Take reasonable and practical actions
IA09 / SV09 (Building 203)	1,1,1-Trichlorethane	72.6	0.196	No further action
	Carbon Tetrachloride	68.9	0.692	Monitor / mitigate
	Tetrachloroethene	0.339	0.170	No further action
	Trichloroethene	0.333	0.683	Take reasonable and practical actions
IA10 / SV10 (Building 203)	1,1,1-Trichlorethane	45.7	0.180	No further action
	Carbon Tetrachloride	22.3	0.654	Monitor
	Tetrachloroethene	0.231	0.156	No further action
	Trichloroethene	132	0.623	Monitor / mitigate
IA11 / SV11 (Building 202)	1,1,1-Trichlorethane	96	0.469	No further action
	Carbon Tetrachloride	223	1.95	Mitigate
	Tetrachloroethene	5.85 U	0.142	No further action
	Trichloroethene	2.32 J	0.107 U	No further action
IA12 / SV12 (Building 202)	1,1,1-Trichlorethane	103	0.147	Monitor
	Carbon Tetrachloride	918	1.01	Mitigate
	Tetrachloroethene	0.271 U	0.061 J	No further action
	Trichloroethene	0.172 J	0.107 U	No further action

Location ID	Analyte	Sub-Slab Soil Vapor Concentration (µg/m^3)	Indoor Air Concentration (µg/m^3)	New York State Department of Health Guidance/Decision Matrix Outcome[1]
SV13 (Building 204)	1,1,1-Trichlorethane	8.07	Not Available	Take reasonable and practical actions[3]
	Carbon Tetrachloride	937	Not Available	Mitigate[2]
	Tetrachloroethene	3.76	Not Available	Take reasonable and practical actions[3]
	Trichloroethene	1,630	Not Available	Mitigate[2]
IA14 / SV14 (Building 204)	1,1,1-Trichlorethane	2.35	0.038 J	No further action
	Carbon Tetrachloride	1.99	0.516	Take reasonable and practical actions
	Tetrachloroethene	63.4	0.142	No further action
	Trichloroethene	3.12	0.210	No further action
IA15 / SV15 (Building 204)	1,1,1-Trichlorethane	0.109 U	0.044 J	No further action
	Carbon Tetrachloride	0.774	0.572	Take reasonable and practical actions
	Tetrachloroethene	0.075 J	0.149	No further action
	Trichloroethene	0.065 J	3.92	Take reasonable and practical actions

µg/m^3: micrograms per cubic meter

U - Qualifier denotes non-detect.

J - Qualifier denotes estimated value.

1: Based on *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, New York State Department of Health matrices.

2: One sub-slab soil vapor sample location (SV13) did not have corresponding indoor air samples to allow for comparison using the NYSDOH matrix. However, NYSDOH Matrix 1 (applicable to CT and TCE) indicates that a soil vapor concentration greater than 250 µg/m^3 results in a mitigation recommendation, for even the lowest corresponding VOC indoor air concentration.

3: One sub-slab soil vapor sample location (SV13) did not have corresponding indoor air samples to allow for comparison using the NYSDOH matrix. However, NYSDOH Matrix 2 (applicable to PCE and 1,1,1-TCA) indicates that a soil vapor concentration less than 100 µg/m^3 could result in no worse than a "take reasonable and practical actions" recommendation, for even the highest corresponding VOC indoor air concentration.

Based on the results for CT, monitoring or mitigation is recommended at locations SV05/IA05 and SV09/IA09, and mitigation is recommended at locations SV07/IA07, SV08/IA08, SV11/IA11 and SV13/IA13. Based on the results for TCE, monitoring or mitigation is recommended at location SV10/IA10, and mitigation is recommended at location SV13. These locations are in the office and eastern end of Building 201, the office and manufacturing areas of Building 202, the office area of Building 203, and the manufacturing area of Building 204. These locations are generally consistent with the current understanding of the location of the CT plume, which passes beneath the eastern end of Building 201, the center of Building 202, and the western ends of Buildings 203 and 204. Only location SV05/IA05 does not appear to overlie the CT plume.

Comparison of the results for the samples collected in March 2014 with the NYSDOH matrix comparison indicates the need for mitigation in the following areas:

- The eastern end of Building 201;
- All of Building 202;
- The center of Building 203; and
- The active manufacturing area of Building 204.

Figure 8 depicts the relative positions of NYSDOH recommended strategies, based upon NYSDOH Guidance. Since no products containing CT were identified in any of the buildings and sub-slab soil vapor concentrations of CT exceeded indoor air concentrations at every location, it can be concluded that all mitigation recommendations in the buildings are driven by CT impacts from soil vapor intrusion.

The March 2014 recommendations were similar to the April 2013 results, with only four differences:

- Based on the results at location SV06 / IA06, the western end of Building 201 was recommended for reasonable and practical actions in 2013, but for monitoring in 2014;
- Based on the results at locations SV09 / IA09 and SV10 / IA10, the eastern and western ends of Building 203 were recommended for monitoring in 2013, but for monitoring / mitigation in 2014; and
- Based on the results at locations SV14 / IA14 and SV15 / IA15, the eastern and office area of Building 204 were recommended for monitoring in 2013, but for reasonable and practical actions in 2014.

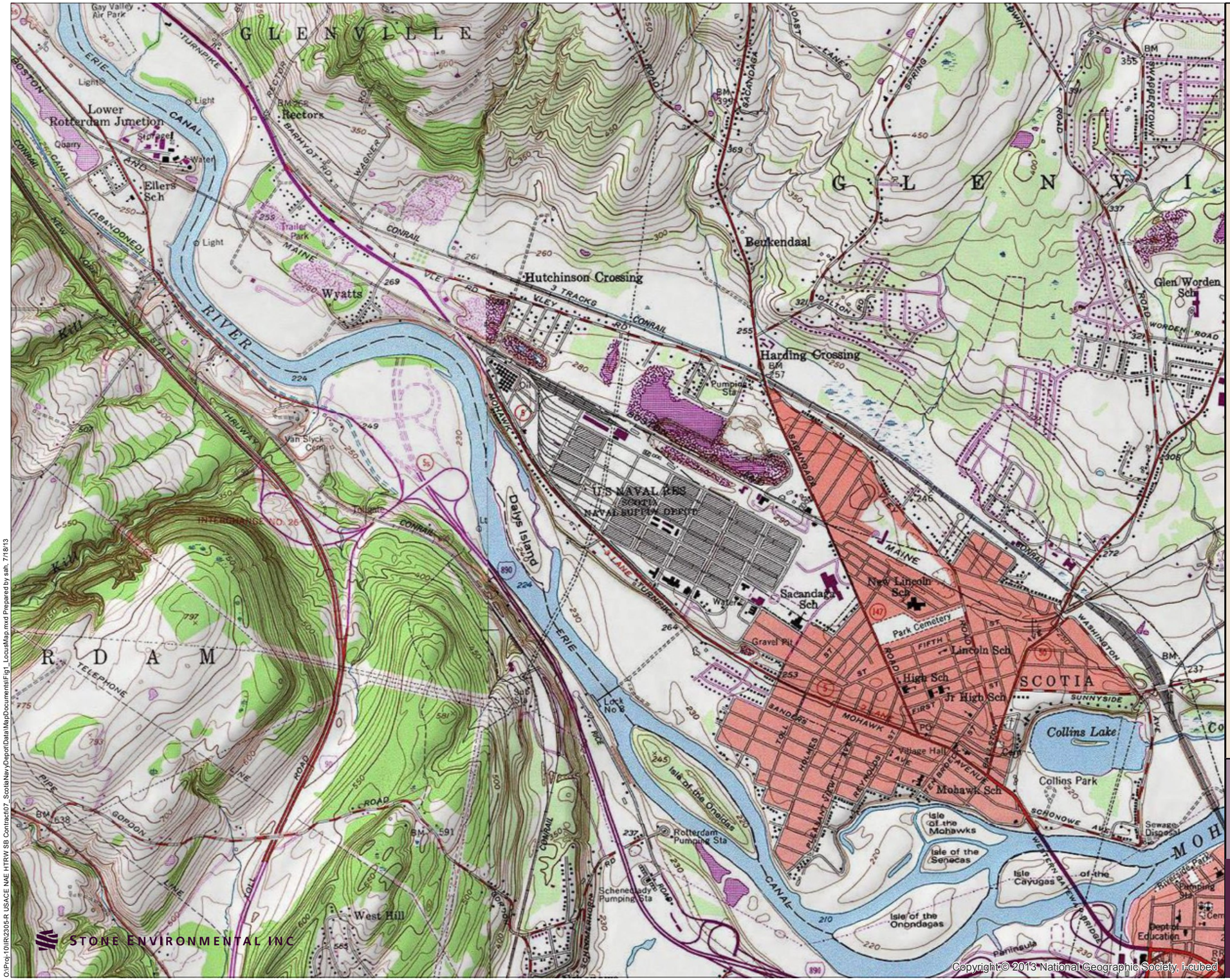
The similarity of the mitigation / monitoring recommendations between the two rounds, only four changes by one category, reflects the similarity of the sub-slab soil vapor and indoor air results between the two rounds, and suggests that the SVI conditions are stable beneath the buildings of the 200-block.

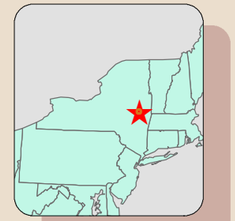
Sincerely yours,

Joseph Schmidl, P.G., C.W.S
Senior Project Manager

Direct Phone / 802.229.5377
E-Mail / JSchmidl@Stone-Env.com

FIGURES





N

0 0.5 Mile

1 inch = 2,000 feet

Map References:

Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Locus Map

FIGURE 1

Scotia Navy Depot
Scotia, NY

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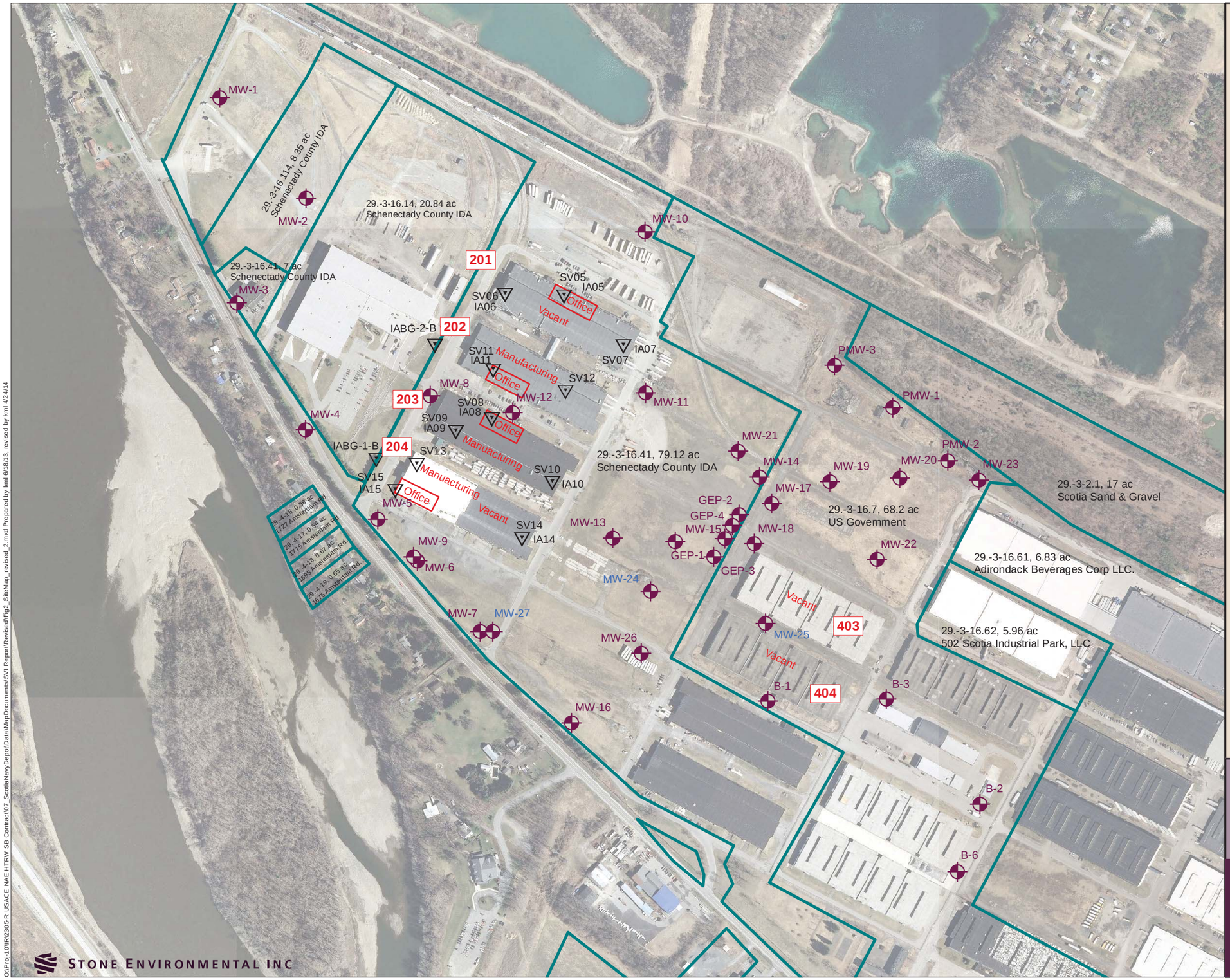


N

0 200 400 600 Feet

Legend

- Soil Vapor (SV) / Indoor Air (IA) Samples
- Monitoring Wells
- Property Lines

Note: Indoor air samples were identified as "AR" during the April 2013 sampling round.

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

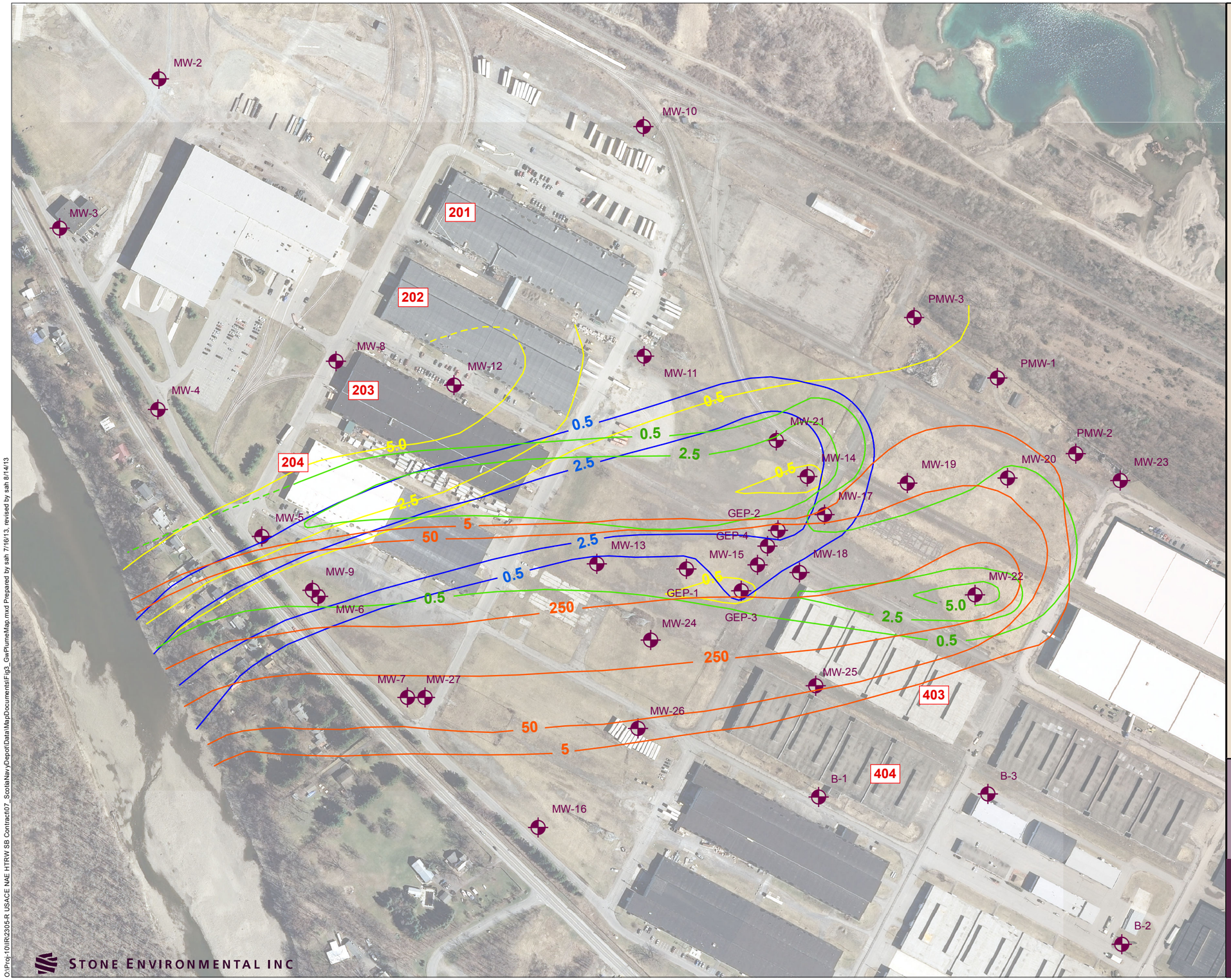
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Site Plan

FIGURE 2

Scotia Navy Depot
Scotia, NY

O:\Proj-10\IR2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\Data\MapDocuments\SVI Report\Revised\Fig2_SiteMap_revised_2.mxd Prepared by kml 6/18/13, revised by kml 4/24/14



Legend

Monitoring Wells

February 2013 Groundwater Plume Isopleths (µg/L)

- Tetrachloroethene (PCE)
- Trichloroethene (TCE)
- 1,1,1-Trichloroethene (1,1,1-TCA)
- Carbon Tetrachloride

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

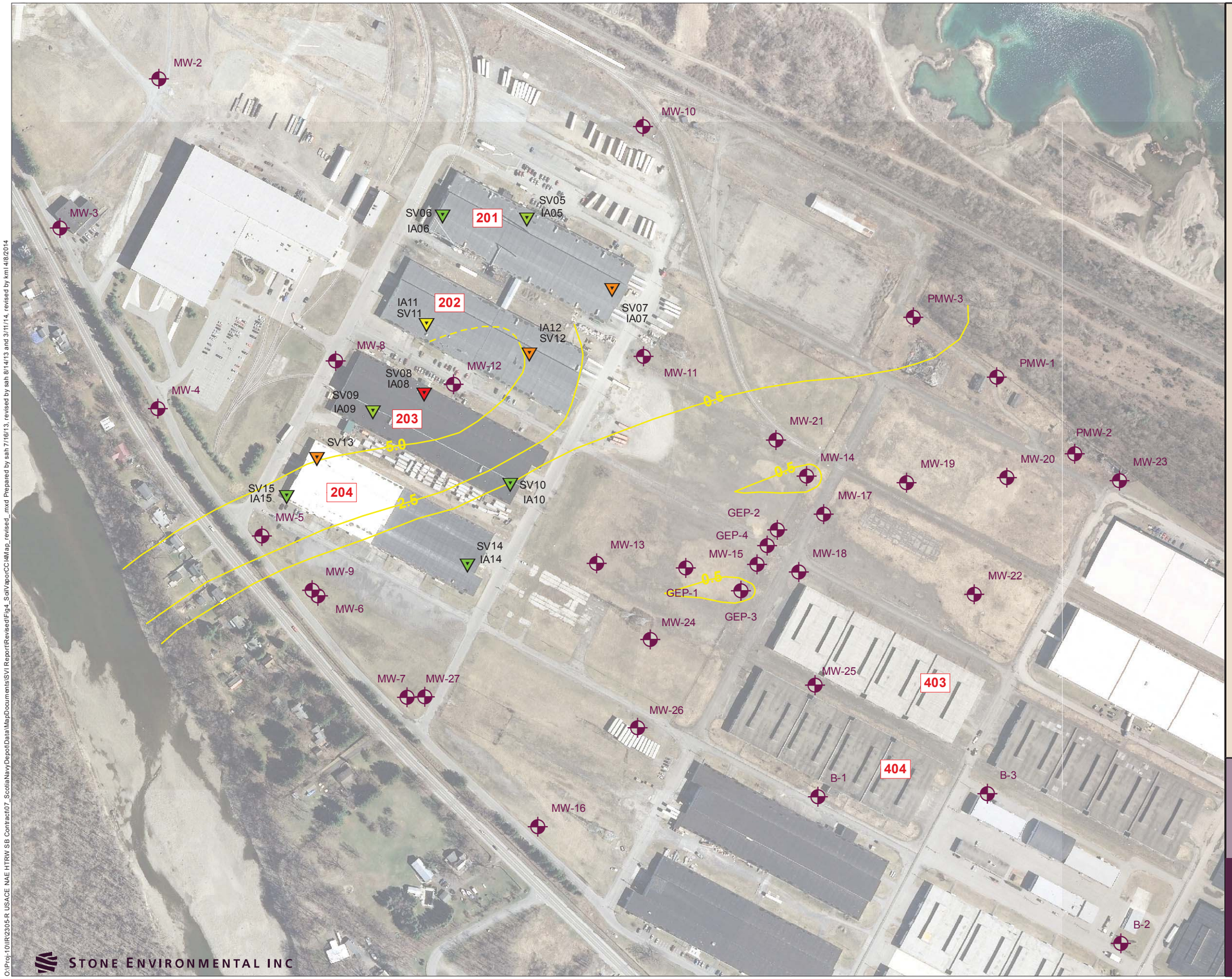
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Groundwater Plume Map

FIGURE 3

Scotia Navy Depot
Scotia, NY

O:\Proj-1\01\IR\2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\DataMapDocuments\Fig3_GwPlumeMap.mxd Prepared by sah 7/16/13, revised by sah 8/14/13



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Legend

Monitoring Wells

Sub-SlabSoil Vapor (SV) / Indoor Air (IA) Samples

Carbon Tetrachloride Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.77 µg/m^3 to 22.3 µg/m^3
- 22.3 µg/m^3 to 122 µg/m^3
- 122 µg/m^3 to 223 µg/m^3
- 223 µg/m^3 to 1,210 µg/m^3
- 1,210 µg/m^3 to 3,270 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- Carbon Tetrachloride

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

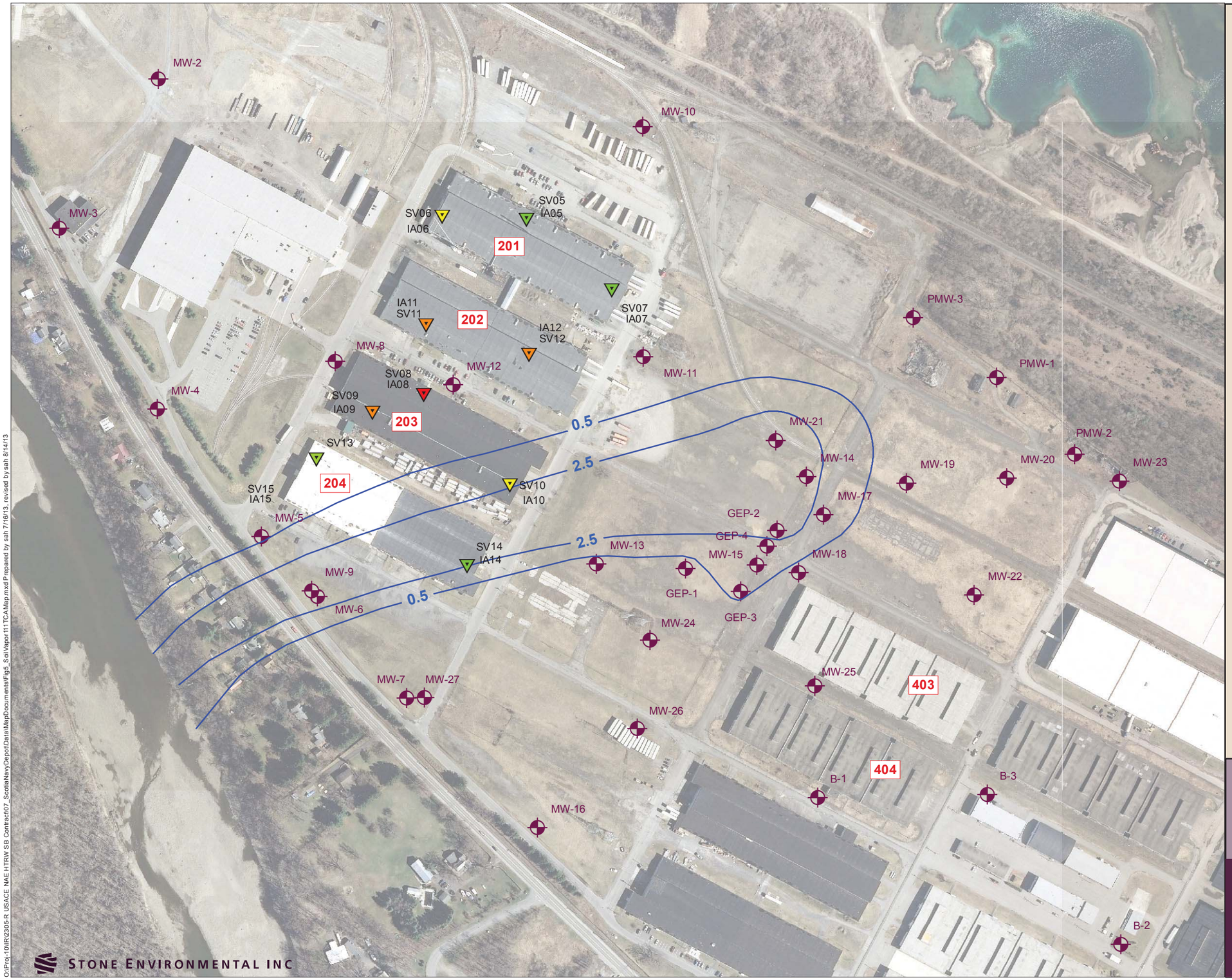
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map Carbon Tetrachloride

FIGURE 4

Scotia Navy Depot
Scotia, NY

O:\Proj-110\R2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\Data\MapDocuments\SVI Report\Revised\Fig4_SoilVaporCC4Map_revised_.mxd Prepared by sah 7/16/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/2014



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Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

1,1,1-Trichloroethane Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.737 µg/m^3 to 2.35 µg/m^3
- 2.35 µg/m^3 to 8.07 µg/m^3
- 8.07 µg/m^3 to 45.7 µg/m^3
- 45.7 µg/m^3 to 103 µg/m^3
- 103 µg/m^3 to 862 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- 1,1,1-Trichloroethane (1,1,1-TCA)

Map References:

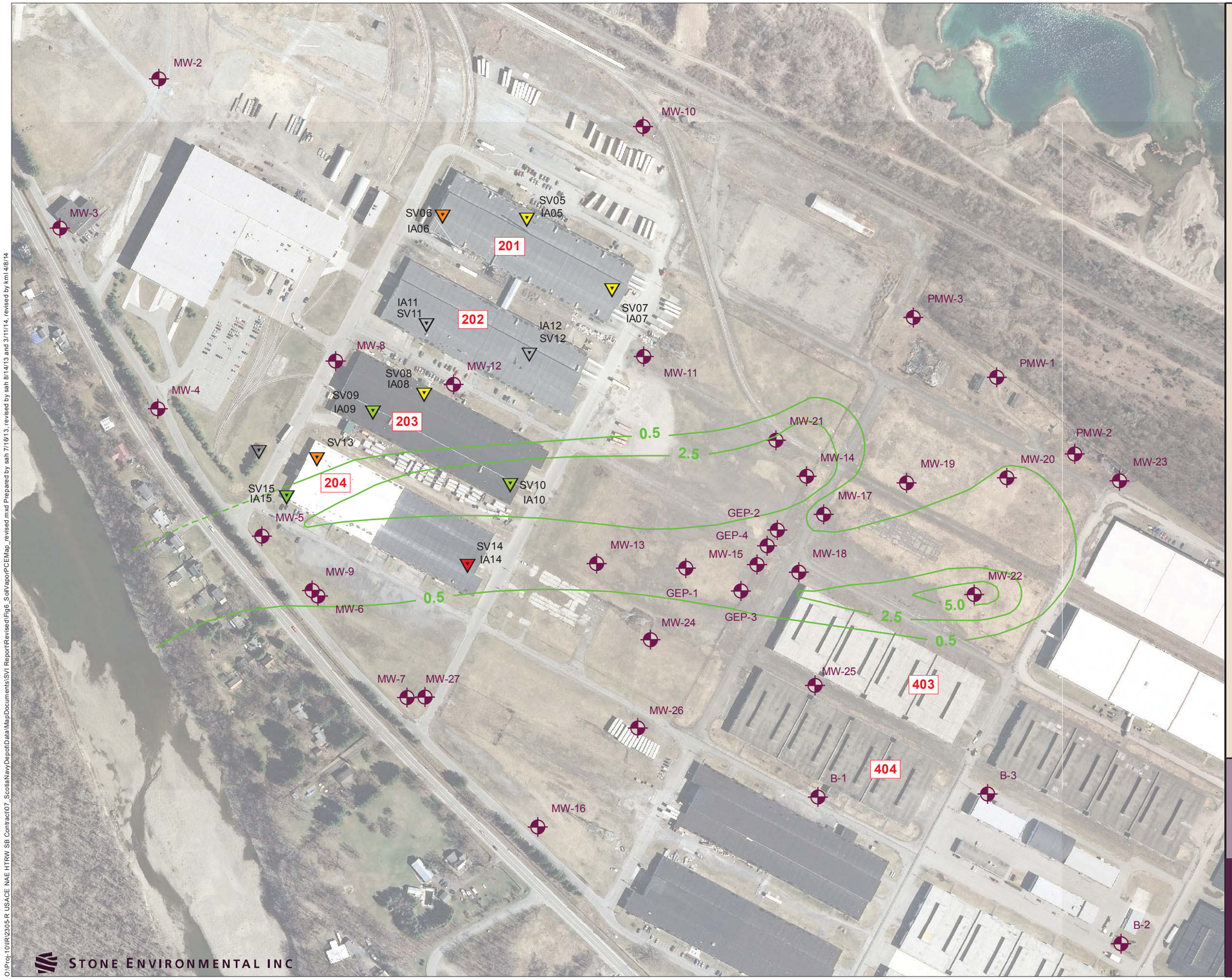
2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map 1,1,1-Trichloroethane

FIGURE 5

Scotia Navy Depot
Scotia, NY



Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

Tetrachloroethene Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.075 µg/m^3
- 0.075 µg/m^3 to 0.339 µg/m^3
- 0.339 µg/m^3 to 0.868 µg/m^3
- 0.868 µg/m^3 to 0.3.76 µg/m^3
- 3.76 µg/m^3 to 63.4 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

Tetrachloroethene (PCE)

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map Tetrachloroethene

FIGURE 6

Scotia Navy Depot Scotia, NY

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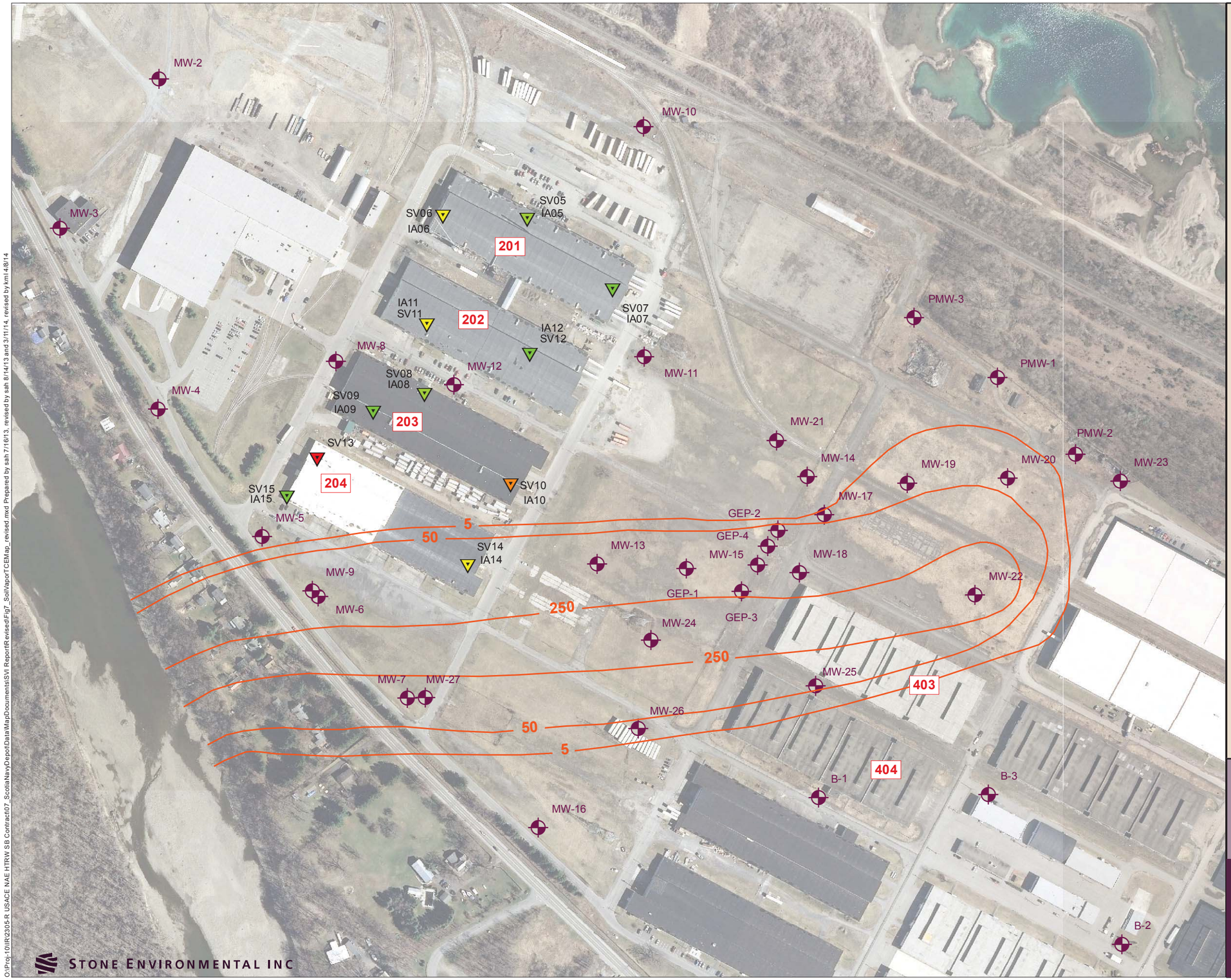

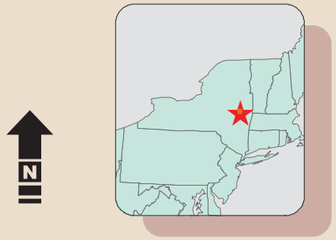

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Legend

Monitoring Wells

Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples

Trichloroethene Concentration in Sub-Slab Soil Vapor, March 2014

- Non-detect
- 0.065 µg/m^3 to 0.349 µg/m^3
- 0.34 µg/m^3 to 1.05 µg/m^3
- 1.05 µg/m^3 to 3.12 µg/m^3
- 3.12 µg/m^3 to 132 µg/m^3
- 132 µg/m^3 to 1,630 µg/m^3

February 2013 Groundwater Plume Isopleths (µg/L)

- Trichloroethene (TCE)

Map References:

2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP)

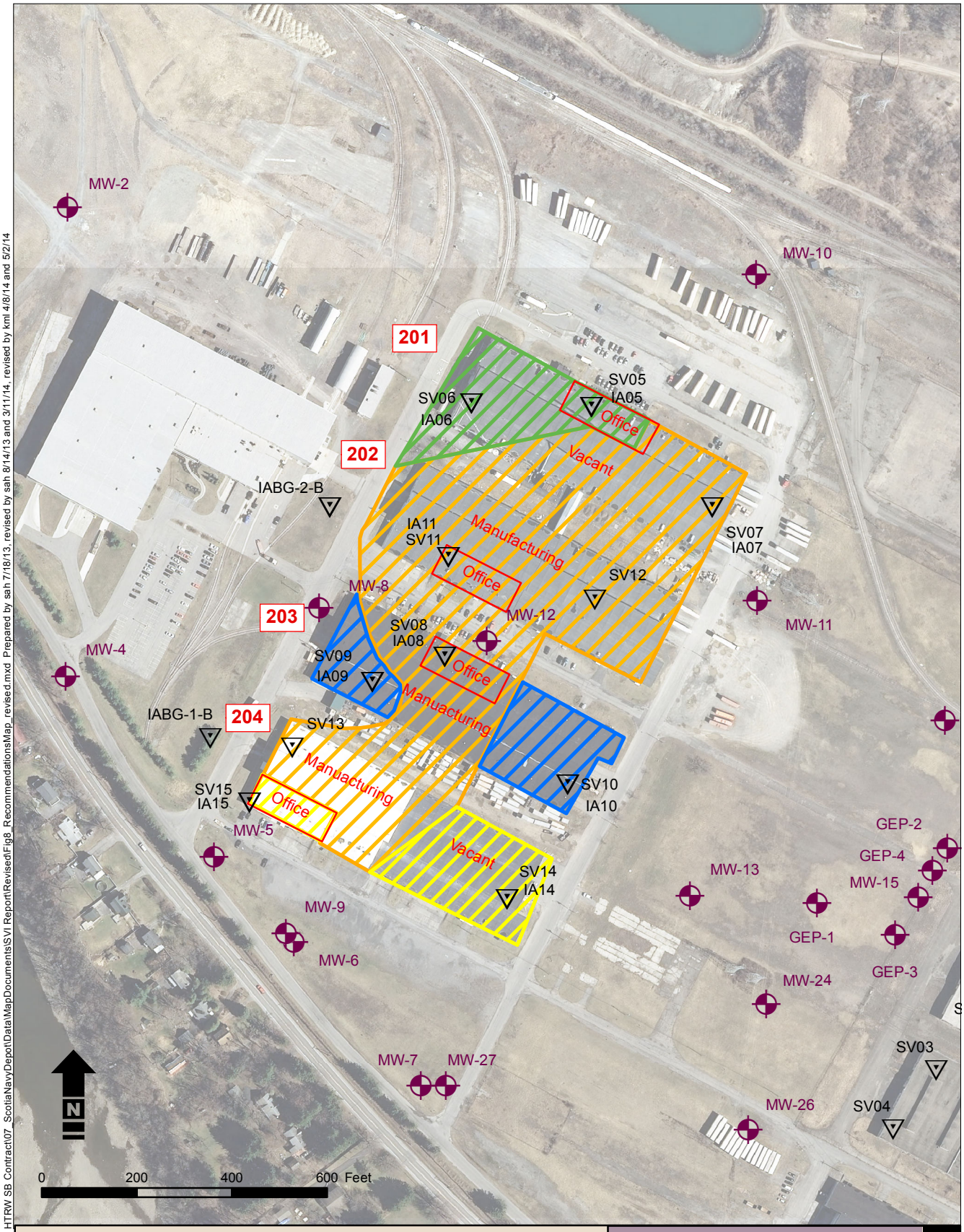
Projection: NY State Plane
Horizontal Datum: North American Datum of 1983

Sub-Slab Soil Vapor Map Trichloroethene

FIGURE 7

Scotia Navy Depot
Scotia, NY

O:\Proj-1\01IR\2305-R USACE NAE HTRW SB Contract\07_ScotiaNavyDepot\DataMapDocuments\SVI Report\Revised\Fig7_SoilVaporTCEMap_revised .mxd Prepared by sah 7/16/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/14



Legend

- Sub-Slab Soil Vapor (SV) / Indoor Air (IA) Samples
- Monitoring Wells

Recomended Strategy

- Mitigate
- Monitor
- Monitor/Mitigate
- Take Reasonable and Practical Actions

Footnote: Recommendations based on application of March 2014 data to Matrices 1 and 2 of New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.

Map References: 2010 Orthoimagery of Schenectady County, NYS Digital Orthoimagery Program (NYSDOP); Projection: NY State Plane; Horizontal Datum: North American Datum of 1983

STONE ENVIRONMENTAL INC

Recommended Response to SVI Based on 2014 Results and NYSDOH Guidance

Scotia Navy Depot
Scotia, NY

FIGURE 8

O:\Proj-10\IR\2305-R USACE NAE HTRW SB Contract\07 - ScotiaNavyDepot\Data\MapDocuments\SVI Report\RevisedFig8_RecommendationsMap_revised.mxd Prepared by sah 7/18/13, revised by sah 8/14/13 and 3/11/14, revised by kml 4/8/14 and 5/2/14

ATTACHMENT A

FIELD NOTES

3/6/14

Chemicals Used @ PAL Turbine Services

Tenant in Building 202, March 2014.

1. Liquid Wrench
2. Kano Kroil
3. Krud Kutter (Cleaner / Degreaser
4. Windex
5. Lysol Toilet Bowl Cleaner
6. Simple Green
7. Tarn – X
8. Chisel Paint Stripper
9. Jasco Premium Paint & Epoxy Remover
10. Surf Prep CXT 200
11. Klean Strip Prep-all Auto Prep
12. Butane
13. Electric Motor / Equip Degreaser
14. Electronic Switch & Contact Cleaner
15. 91% Isopropyl Alcohol
16. Synthetic Water Resistant Grease
17. Mobil-1 Synthetic Grease
18. WD – 40
19. Slikene (Cleaner)
20. Crown Paint Thinner – Next
21. Crown Paint Thinner
22. Crown Lacquer Thinner
23. Crown Low Odor Mineral Spirits
24. Rust – O – Leum (Flat Black)
25. Astro 9620 (Varnish)
26. Aero Kroil
27. Weather Proof
28. Kroil (5 Gallon Can)
29. Gasoline
30. Propane
31. Mr. Clean
32. Tip Tinner and Cleaner

Location ~~Gilesi~~ Industrial Park Date ~~3/4/14~~

Project / Client Scotia NY 3/4/14

Scale

DN, SI, WW onsite at 1245
met w/ Pat McGaloney of Galesi & David Ald. (Galesi

Reviewed Scope. Started to set
sub slab samples in bldg 204 (~~the~~ end. Fcs)
on east end (vacant). Reviewed HASP. Signed
Daily form for HES tailgate
Found former soil gas location for SV14 +
SV15. SVP3 drilled new location
Finished up in 201 at 1415

~~SV14 - 8~~

* Filled out field forms for each location

Moved over to 203, Signed in at 14
Spoke w/ receptionist.

Set up 2 SV10, SV09, SV08 ~~detect~~
between 1430 and 1530

off site at 1530

Spoke w/ Joe S. Need to relocate
SV09.

Instruments:
Radiodetection Dielectric technologies
Helium/Hydrogen
Multigas detector - M60-062
RAE Systems PID w/ 11.7 eV lamp

Off site
at 1530
[signature]

Location Glenville Industrial Park Date 3/5/14

Project / Client 102305 Scotia Indoor Air

- DN, SMI & WJW onsite at 0720,
- Overcast w/ oncoming snow this evening 20°F
- goal for the day is to collect samples from bldg 204 and 203 and to set up collection pts for bldg 202 and 201. * Need to reinstall point at 203 SV09

Col. brief Instruments, see forms

Set up in 204 at location SV14. Demonstrated sampling technique + procedures w/ WJW + SMI.

WJW + SMI perform sample collection in 204 (SV13, SV14, & SV15)

DN moved over to start Background + samples in 203. Set up BG on tree west of alley between 204+203, approx 50' from edge of pavement.

Setup SV08, SV09, SV10 between 0918 and 1030 re-installed SV09* & leak tested (to correct location) reinstalled SV08 & SV10 on 3/5/14 due to failed leak test.

Location Glenville Industrial Park Date 3/5/14 (cont.)

Project / Client 102305 - Scotia

Scale

Following installation, met w/ Pat Medeiros and installed pts in 202 + 201

202 has a new tenant in western half of building PAL (Paul and Lorraine) Making and refurbishing of steam + gas turbines ~~deployed connectors~~ set point in hallway, north of office where last yrs point was located. Returned to 204+203 to monitor vacuum

offsite at 1215 for lunch

1300 on site met w/ Kathy _____ of USEPA

Reviewed locations + inspected vacuums again

When inspecting SV14, Ind Tab had connected a poly tarp over the sampling point.

Retrieval cans starting at 1543 (low pressure)

Post sampling leak detection performed as recorded on forms 2 of 3 samples had leaks in 203 bldg. Possibly due to cold slab conditions and contracting putty.

Collected all samples by 1720. Packed samples and left site at 1750.

End of day

Location Glenville Industrial Park Date 3/6/14
Project / Client 102305 Scotia SVI 2014

DTV, SMI + WJW on-site at 0706.
Sunny, cold, ~2°F calm

Began at 201 Bldg. Moved 1 cart inside
Calibrated instruments as recorded on forms

Goal for today -
- sample 3 locations in 201 + FDs
- sample 2 locations in 202
- sample Background

Began sampling in 201, SMI + WJW set up in 202.
Began w/ SV05 by office + kitchen → SV06 → SV07
high PID reading at 1200 ppm, climbed steadily, ← could be moisture
Kathy Malinowski (USACE on-site at 0920)

Completed deploying cans by 0930.

[1020]
Found that we have 4 spare canisters
- to deploy at SV08, SV10, SV13 + SV14

[1130]
Performed round of diagnostic pressure readings
- recorded on forms for SV/IA 05, 6 + 7 (201 Bld)

Location Glenville Industrial Park Date 3/6/14
Project / Client 102305 Scotia SVI 2014
Scale

Recorded here for 202 Bldg:

IA 12	-22.53	at	1152	
SV 12	-23.78	at	1152	
SV 11	-7.65	at	1156	☆
IA 11	-19.55	at	1156	

☆ needed to shut down early - Waited until < 6 in Hg vacuum shut off -5.22 at 1212

Reviewed PAL MSDSs - Noteworthy chems:
1) Loctite Chisel Paint Stripper - Methylene Chloride
2) Jasco Paint remover
3) Electronic Switch degreaser
- Heptane
- Butane
Cyclohex
- Iso hex
Tetrafluoroethane

Dichloromethane, Stoddard solvent, etc.

Obtained list from PAL, will include w/ Field Notes.
Checked on SV08: -24.56 at 13.16

Began collecting samples ~1630.

Packed up, offsite at 1830

End of day [signature]

Scotia, NY 3/6/14

ID	Pressure (in H_2O)
SV11-1-B	-0.001
Bldg 203 E. end SV10	0.005
SV12-1-B	0.002
SV05	0.001
SV07	0.002
SV06	0.004
SV08	0.002

Post sample collection sub slab pressures

ATTACHMENT B

SOIL VAPOR AND INDOOR AIR SAMPLE COLLECTION SHEETS

Soil Gas Sample Collection Record

Building Location: 201 Tenant (if applicable): Sealed Air

Soil Gas Sample ID: SV05-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/5/14

Weather Conditions: cold, overcast, breezy

Rain within last 24 hours? (y/n): No Amount: —

Sampler(s): WJW, DTV, SM

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Hallway by office

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.3' below slab

Sample collection method: Summa Canister

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 0.001" WC

PID Reading: ~~2.2~~ 1200 (!) (ppm v/v) CO_2 Reading: 0 O_2 Reading: 19.8

DN 3/6/14

Sample Name	Sample Time Init.	Sample Time Final	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) Initial	Flow Rate (mL/min) Final	Analysis Required
SV05-1-B	0439	1655	Alpha		1530	8 hr	-30.23	-8.75	TO15

FCH 0103

Comments:

Re-sealed hole w/ modeling clay

Initial leak tested OK 0.0 ppm -27.7 at 0937

Final leak tested OK 0 ppm -23.05 at 1128

Signature: Date: 3/5/14

Soil Gas Sample Collection Record

Building Location: 201 Tenant (if applicable): Sealed Air

Soil Gas Sample ID: SV06-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: Sunny cold, ~~cloudy~~ 2°F

Rain within last 24 hours? (y/n): no Amount: _____

Sampler(s): DN

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: west end of 201

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.5' below slab

Sample collection method: Summa canister

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 0.003

PID Reading: 0.9 (ppm v/v) CO_2 Reading: 0.0 O_2 Reading: 19.9

Sample Name	Sample Time Init.	Sample Time Final	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) Init.	Flow Rate (mL/min) Final	Analysis Required
SV06-1-B	0856	1630	Alpha		1563	8 hr	-30.6	-7.08	FCH 0150
SV06-1-B-FD	0856	1630			998		-30.27	-7.36	0314

Comments:

West end of building near high bay door. 30' from western wall, 7' North of partition. Set up field dup w/ swage T fitting. Performed leak test - passed 0 ppm

SV06 -22.66 at 1137

SV06FD -22.67 at 1139

Final leak test OK 0 ppm

Signature: _____ Date: 3/6/14

Soil Gas Sample Collection Record

Building Location: 20 Tenant (if applicable): Sunbelt air

Soil Gas Sample ID: SV07-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: Sunny, calm, 50°F

Rain within last 24 hours? (y/n): No Amount: -

Sampler(s): DN

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: East end of 201

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.5' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 0.027"

PID Reading: 5.3 (ppm v/v) CO_2 Reading: 0.0 O_2 Reading: 20.3

Sample Name	Sample Time In	Sample Time Fin	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) In.	Flow Rate (mL/min) Fin.	Analysis Required
SV07-1-B	0928	1640	Alpha		594	8hr.	-29.52	-8.41	TO15

FC # 255

Comments:

Trucks coming + going through OH door on east wall ~50' from SV07

Initial leak tested OK 0ppm He

34' from south wall, 30' from east wall

-2352 at 1131

Final leak test OK 0ppm He

Signature: Date: 3/6/14

Soil Gas Sample Collection Record

Building Location: 203 Tenant (if applicable): _____

Soil Gas Sample ID: SV08-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/4-3/5

Weather Conditions: cold, cloudy

Rain within last 24 hours? (y/n): No Amount: -

Sampler(s): WJW, SMI, DJV

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Break Room, SW corner, near microwave bench

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.5' below slab

Sample collection method: _____

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): -0.006

PID Reading: 38.6 (ppm v/v) CO_2 Reading: NC O_2 Reading: NC

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) Soil / Fixed	Analysis Required
✓ SV08-1-B Initial	0918	Alpha		1870	8hr	0.20 /	TO15
End	1549					-6.29	

FC ct 404

Comments:

-20.2 at 12:00 passed leak test

-13.73 at 13:45

-7.85 at 1525

Leak tested at end read 4.7% He.

Signature: _____ Date: 3/5/14

Coc ✓

Soil Gas Sample Collection Record

Building Location: 203 Tenant (if applicable): NE FAB

Soil Gas Sample ID: SVD9-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/4/14

Weather Conditions: overcast 10°F

Rain within last 24 hours? (y/n): No Amount: -

Sampler(s): DN, WJW, SMT

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: In SW corner of building

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.3' below slab

Sample collection method:

2. SAMPLE INFORMATION: Atm = 29.96 in Hg

Sub-Slab/Ambient Pressure Differential ("WC): -0.001

PID Reading: 0.0 (ppm v/v) CO_2 Reading: 6 ppm O_2 Reading: 19.9

Sample Name	Sample Time Init / Fin	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) Init. / Final	Analysis Required
SVD9-1-B	0951 / ~~1540~~ ~~1614~~ 1610 DN 3/5/14	Alpha		~~1570~~ 1784	8 hr ✓	-30 / -5.56	TO15

FC# 0404

Comments:
~~SB~~ SV09 collected 27' from South wall. 52' from West wall
point set, pressure measured on 3/4/14 - TJ - said in wrong place
Moved to inner bay, 2nd pole on South side from
West wall (98'). 4" to the north of pole
Passed leak test (initial) Measured 1350ppm He at post leak test.
-21.5 at 1204 -15.2 at 1552

Signature: [signature] Date: 3/5/14

COC ✓

Soil Gas Sample Collection Record

Building Location: 203 Tenant (if applicable): NE Fab

Soil Gas Sample ID: SV10-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/4/14

Weather Conditions: Overcast ~ 40°F

Rain within last 24 hours? (y/n): No Amount: —

Sampler(s): DN, SMI, WJW

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: SE corner of building, 11' from E wall, 14' from South wall

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): ~0.3' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 0.006 (1st location), -0.011 (2nd location)

PID Reading: ① 8.5 (background) / 0.5 (ppm v/v) CO_2 Reading: 5.0 ppm O_2 Reading: 20.0 ppm

Sample Name	Sample Time Init / Final	Laboratory	Chain of Custody #	Container ~~Type~~ # ID	Collection Period	~~Flow Rate~~ Pressure (mL/min) Init / Final	Analysis Required	Flow ID #
✓ SV10-1-B	1030 / 1502	Alpha		1878	8hr ✓	-25.2 / ?	TO15	04455

? = could not take final reading due to dead battery in gauge. Last reading (1650) showed -7.55

Comments:

Redrilled sample point, pressure -0.011.
New location used due to failed the test at first location. 2nd location passed leak test.
~~-23.4 20.2 at 1200~~ at 1204 on 3/5/14
-7.56 at 1355
Final leak test 21.1% He.

Signature: Date: 3/5/14

① WJW 3/5/14 .011

Soil Gas Sample Collection Record

Building Location: 202 Tenant (if applicable): ______

Soil Gas Sample ID: SV11-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/5/14

Weather Conditions: very cold, clear

Rain within last 24 hours? (y/n): No Amount: ______

Sampler(s): WJW, DTV, SMI

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: back hall behind reception area, rear cubicles

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.25' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 0.004

PID Reading: 15.4 (ppm v/v) CO_2 Reading: 0.0 O_2 Reading: 20.4

0913
-30.17

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type~~ # ID ①	Collection Period	Flow Rate (mL/min)	Analysis Required	Flow ID #
SV11-1-B	1212	Alpha		~~1586~~			TO15	~~0146~~ ①
				938				0648

-4.22
1212

Comments:
Back hall, behind office area where last year's sample was collected
New tenant: PAL

He leak test performed. Took several tries, putty not sealing well.
Post-sample He leak test, 2.9%

Signature: [signature] Date: 3/6/14

① WJW 3/6/14

COL ✓

202 Soil Gas Sample Collection Record

Building Location: SV12-1-B2 Tenant (if applicable): PAL in West end

Soil Gas Sample ID: _____

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: very cold, sunny

Rain within last 24 hours? (y/n): No Amount: _____

Sampler(s): WJW/SM1

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Dark Room in 202, between 8/9th column from E end

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): _____

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): -0.109

PID Reading: 0.0 (ppm v/v) CO_2 Reading: 0.0 O_2 Reading: 18.6

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type~~ # ID	Collection Period	Flow Rate (mL/min)	Analysis Required
SV12-1-B-Fed	1650	Alpha		646			TO15

0958 -29.37 -9.85 1650

Flow IDF 0578

Comments:

~35' from N. Wall, b/w 8th & 9th column from East, SW of red-painted column

Pre-sample He leak test performed, difficulty sealing hole, but got it eventually. Odd slab in this part of building.

Post-sample He test - passed, no defect.

Signature: _____ Date: 3/6/14

Soil Gas Sample Collection Record

Building Location: 201 Tenant (if applicable): Independent Fab.

Soil Gas Sample ID: SV13-1-B

Project Name: Former Scotia Naval Depot Project #: 10-2305

Site Location: Scotia, New York Date: 3/4/14

Weather Conditions: Overcast, ~10°F

Rain within last 24 hours? (y/n): No Amount: _____

Sampler(s): DN, WJW, SI

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: New eye wash station & paint booth

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.5' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): ~~-0.25~~ DN 3/4/14 -0.025

PID Reading: 0.6 (ppm v/v) *CO_2 Reading: 0.0 *O_2 Reading: 18.8

* recorded post-sample

Pressure
Initial -29.64
Final -7.56

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container Type # ID	Collection Period	Flow Rate (mL/min)	Analysis Required	Flow ID #
SV13-1-B	1600	Alpha		1551	7 hrs 23 min	-	TO15	0647

Comments:

Set point at 1400 on 3/4/14. Recorded pressure and left for night.

He leak test performed, no detection.
Leak test post-sample detected He ~3%. Sample tubing had been disturbed by paint booth workers.

Signature: _____ Date: 3/5/14

Soil Gas Sample Collection Record

Building Location: 204 Tenant (if applicable): Sealed Air (Vacant)

Soil Gas Sample ID: SV14-1-B

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/4/14

Weather Conditions: overcast

Rain within last 24 hours? (y/n): No Amount:

Sampler(s): Will Weinstat, Shane Ingram Dan Voisin

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: East end of 204, 30' from east wall,

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 2.3'

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): 2.882

PID Reading: ~~0.0~~ 0.4 (background) (ppm v/v) *CO_2 Reading: 0.0 *O_2 Reading: 20.9

0

* recorded post-sample

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type~~ # ID	Collection Period	Flow Rate (mL/min)	Analysis Required
SV14-1-B	1640	Alpha		1864	7hrs 40 mins	-	TO15

Pressure Initial -29.88 0900 -7.66 1640

Flow ID # 0415

Comments:

Set up on location on 3/4/14, measured P, capped + left for the night

He leak test performed, no detection.

Seal broken during post-sample He test. Far too much pressure used.

Signature: Date: 3/5/14

@ WJW 3/5/14

Soil Gas Sample Collection Record

Building Location: 204 Tenant (if applicable): Ind. Fab

Soil Gas Sample ID: SV15-1-B

Project Name: Former Scotia Naval Depot Project #: 10-2305

Site Location: Scotia, New York Date: 3/4/14

Weather Conditions: overcast ~40°F

Rain within last 24 hours? (y/n): None Amount: _____

Sampler(s): SMI, WJW, DTV

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Closet in break room

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): ~0.3' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): -0.013

PID Reading: 0.8 (background) (ppm v/v) *CO_2 Reading: 0.0 *O_2 Reading: 20.7

* recorded post-sample

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type~~ # ID	Collection Period	Flow Rate (mL/min)	Analysis Required	Flow ID #
SV15-1-B	1653	Alpha		1000			TO15	0102

0920
-29.99
-0.02
1653

Comments:

Set point 3/4/14. Checked pressure and left overnight

tle leak test performed, no detection.

Post-sample tle leak test, no detection.

Signature: _____ Date: 3/5/14

Soil Gas Sample Collection Record

Building Location: 203 Tenant (if applicable): NE Fab.

Soil Gas Sample ID: SVOT SV10

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: Cold, sunny, calm

Rain within last 24 hours? (y/n): No Amount:

Sampler(s): DN, WJW, SMI

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Southeast corner of building

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.3' below slab.

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): NC

PID Reading: 0.9 (ppm v/v) CO_2 Reading: 2 O_2 Reading: 20.0

Sample Name	Sample Time I	Sample Time F	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) I	Flow Rate (mL/min) F	Analysis Required
SV10-1-B-Redux-Dup	1320		Alpha		1586	8hr	-30.19	-1.02	TO15

FC# 146

Comments:

Redo of yesterday's point. located 8' South passed initial leak test. Had to shut off early due to drop in pressure

final leak test passed 0. ppm

Signature: Date: 3/6/14

Soil Gas Sample Collection Record

Building Location: 203 Tenant (if applicable): NE Fab

Soil Gas Sample ID: SV08

Project Name: Former Scotia Naval Depot Project #:

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: Sunny, cold, calm

Rain within last 24 hours? (y/n): No Amount: -

Sampler(s): DN, WJW, SMF

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: Break room in NE Fab space, SW corner of room

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.3' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): -0.006

PID Reading: 38.6 (ppm v/v) CO_2 Reading: NC O_2 Reading: NC

Sample Name	Sample Time I	Sample Time F	Laboratory	Chain of Custody #	Container Type #	Collection Period	Flow Rate (mL/min) I	Flow Rate (mL/min) F	Analysis Required
SV08-1-B-Redo	1119	1126	Alpha		1679	8hr	-30.02	-4.41	

FC# 555

Comments:

Redo of yesterday's point installed new hole ~ 3' to SW.

Purged w/ He detector since PID was malfunctioning and showing very high values. CO_2/O_2 meter shut off. - Collect at end of sample ☆☆

Used Initial Pressure for leak test @ 0 ppm Final leak test passed

Signature: Date: 3/6/14

2nd try

Soil Gas Sample Collection Record

Building Location: 204 Tenant (if applicable): _____

Soil Gas Sample ID: SV13-1-B-Redo

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: cold, clear.

Rain within last 24 hours? (y/n): NO Amount: _____

Sampler(s): WJW SM1

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: W end paint booth, by fire extinguisher

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): 0.3' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): ~~NC~~ 0.010, recorded post-sample

PID Reading: 16.8 (ppm v/v) CO_2 Reading: 0 O_2 Reading: 18.6

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type #~~ ID	Collection Period	Flow Rate (mL/min)	Analysis Required
~~SV13-1-B-Redo~~	~~1050~~	Alpha		1051			TO15
SV13-1-B-Redo	1705	Alpha					

Flow ID # 0158

1137 29.02 -9.85 -13.18 1705

Comments:

Second attempt at this location, sample was disturbed yesterday. Moved ~4' to the north.

He test performed, no detection. Post-sample He test, no detect!

Signature: WJW 3/6/14 Date: 3/6/14

2nd try

Soil Gas Sample Collection Record

Building Location: 204 Tenant (if applicable): _____

Soil Gas Sample ID: SV14-1-B - Redo

Project Name: Former Scotia Naval Depot Project #: 102305

Site Location: Scotia, New York Date: 3/6/14

Weather Conditions: Cold, clear

Rain within last 24 hours? (y/n): NO Amount: _____

Sampler(s): WSW, SMI

1. SAMPLE LOCATIONS AND COLLECTION METHODOLOGY INFORMATION

Description of soil gas point location: East end of Bldg 204, ~30' from E wall, center of Bay

Soil Gas point installation method: Sub-slab sample installed via rotary hammer drill

Sample depths (ft): ~0.25' below slab

Sample collection method: Summa

2. SAMPLE INFORMATION:

Sub-Slab/Ambient Pressure Differential ("WC): ① ~~N/C~~ -0.170 recorded post-sample (see previous attempt)

PID Reading: 2.9 (ppm v/v) CO_2 Reading: 0.0 O_2 Reading: 20.6

Sample Name	Sample Time	Laboratory	Chain of Custody #	Container ~~Type~~ # 17	Collection Period	Flow Rate (mL/min)	Analysis Required
SV14-1-B-Redo	1725	Alpha		1704			

1200 -29.95 1725 -17.95

Flow ID 0384

Comments:

He leaktest performed, no detection!

Signature: ① WSW 3/6/14 Date: 3/6/14

Indoor Air Sampling Form

Sampler: Dan Vorsia Method: TO15 w/ Summa 8hr Project #: 102305

Sample ID	Date	Time Started	Time Ended	Sampling Height (ft)	Summa Canister ID	Vacuum at start	Vacuum at end	Flow Rate	Sample Type	COC #	Flow ID
203 B6											C152
✓ IA06-1-B	3/5/14	0850	1722	3.0	955	-29.02	-10.27				0433
Break room ✓ IA09-1-B	3/5/14	0920	1601	6.0	1200	-28.79	-7.75				0065
SW corner ✓ IA09-1-B	3/5/14	0953	1645	3.0	986	-30.25	-10.14				0277
SE corner ✓ IA10-1-B	3/5-3/6	1006	1709	3.0	~~+2~~ 1524 DV 3/5/14	-29.69	-6.84				
IA06	-26.4 at 1200			-14.60	at 1345		-5.62 at 1526				
IA09	-23.75 at 1204			-15.01	at 1352						
IA06	-21.56 at 1213			-14.32	at 1341						
IA10	-23.4	at 1208		17.27	at 1355						
Kitchen ✓ IA05-1-B	3/6/14	0839	1650	5.0'	1824	-30.05	-6.02		Summa Indoor Air		0226
✓ IA06-1-B		0905	1622	4.0'	~~0991~~ 1517 DV 3/6/14	-30.12	-8.07		Summa Indoor Air		0512
✓ IA06-1-B-FD		0905	1622	4.0'	1517	-29.97	-6.09		Summa Indoor Air		0024
✓ IA07-1-B		0918	~~1622~~	~~4.0~~	745	-30.59	~~-8.07~~		" "		0419
↳			1633 @	3.0' @			-6.03 @				

Notes:

IA07 -23.14 at 1131
IA06-FD -22.01 at 1135
IA06 -22.75 at 1135
IA05 -20.66 at 1137

[@ 1330 @ DV 3/6/14]

Indoor Air Sampling Form

Scotia

Sampler: WJW Method: Summa Project #: 102305

Sample ID	Date	Time Started	Time Ended	Sampling Height (ft)	Summa Canister ID	Vacuum at start	Vacuum at end	Flow Rate	Sample Type	COC #	Flow ID #
IA14-1-B ~~SV14-1-B~~ ①	3/5/14	0855	1636	~3'	1580	-30.66	-7.49				0639
~~SV13-1-B~~											
IA15-1-B ~~SV15-1-B~~ ①	3/5/14	0920	~~1636~~ ① 1652	~3'	~~1821~~ 0624 ①	-29.81	~~-7.49~~ ① -7.56				0624
SVB6-2-B	3/6/14	0805	1543	~2.5'	1481	-30.7	-6.67				0020
IA11-1-B	3/6/14	0835	1600	~3.6'	1514	-30.02	-7.15				0242
IA12-1-B	3/6/14	0858	1653	~3.5'	650	-29.42	-7.57				0424

Notes:

① WJW 3/5/14

ATTACHMENT C

DATA SUMMARY TABLES, LABORATORY DATA PACKAGES, AND DATA VALIDATION REPORTS

Table C-1: Sub-Slab Soil Vapor Sample Results Comparison with EPA Soil Vapor Generic Screening Levels

BUILDING LOCATION SAMPLING DATE LAB SAMPLE ID	EPA Soil Vapor Screening Level[1]	201 SV05-1-B 3/6/2014 L1405009-01	201 SV06-1-B 3/6/2014 L1405009-03	201 SV06-1-B-FD 3/6/2014 L1405009-04	201 SV07-1-B 3/6/2014 L1405009-02	203 SV08-1-B-REDO 3/5/2014 L1405009-16	203 SV09-1-B 3/5/2014 L1405009-14	203 SV10-1-B-REDO 3/5/2014 L1405009-15	202 SV11-1-B 3/6/2014 L1405009-17	202 SV12-1-B 3/6/2014 L1405009-21	204 SV13-1-B-REDO 3/6/2014 L1405009-20	204 SV14-1-B-REDO 3/6/2014 L1405009-22	204 SV15-1-B 3/5/2014 L1405009-24	TRIP BLANK 3/5/2014 L1405009-25
Volatile Organics in Air by SIM (µg/m^3)														
1,1,1-Trichloroethane	22,000	**0.737**	**27.2**	**27.3**	**1.39**	**687**	**72.6**	**45.7**	**96**	**103**	**8.07**	**2.35**	0.109 U	0.109 U
1,1,2,2-Tetrachloroethane	0.420	0.687 U	0.343 U	0.343 U	0.343 U	1.37 U	0.137 U	0.137 U	5.92 U	0.275 U	0.687 U	0.137 U	0.137 U	0.137 U
1,1,2-Trichloroethane	1.5	0.546 U	0.273 U	0.273 U	0.273 U	1.09 U	0.109 U	0.109 U	4.7 U	0.218 U	0.546 U	0.109 U	0.109 U	0.109 U
1,1-Dichloroethene	200	0.396 U	0.198 U	0.198 U	0.198 U	0.793 U	0.079 U	0.028 J	3.42 U	0.159 U	0.396 U	0.079 U	0.079 U	0.079 U
Carbon tetrachloride	1.60	**122**	**10.1**	**10.1**	**1,210**	**2,130**	**69**	**22**	**223**	**918**	**937**	**1.99**	**0.77**	0.126 U
Chloroform	1.10	**2.95**	**1.68**	**1.71**	**2.92 J**	**46.3**	**0.772**	**0.659**	**8.4**	**2.3**	**42.5**	**0.591**	**0.127**	0.098 U
Chloromethane	24.0	**0.64 J**	**0.33 J**	**0.372 J**	**0.801 J**	10.3 U	**0.18 J**	**0.271 J**	44.6 U	**0.396 J**	**0.743 J**	**1.09**	**0.541 J**	1.03 U
cis-1,2-Dichloroethene	350	0.396 U	0.198 U	0.198 U	0.198 U	0.793 U	0.079 U	0.079 U	3.42 U	0.159 U	**1.19**	0.079 U	0.079 U	0.079 U
Methylene chloride	52.0	17.4 U	8.69 U	8.69 U	8.69 U	34.7 U	1.9 U	3.47 U	150 U	6.95 U	11 U	1.58 U	2.61 U	**2.63 J**
Tetrachloroethene	8.10	**0.542 J**	**3.4**	**3.44**	**0.868**	1.36 U	**0.339**	**0.231**	5.85 U	0.271 U	**3.76**	**63.4**	**0.075 J**	0.136 U
trans-1,2-Dichloroethene	700	0.396 U	0.198 U	0.198 U	0.198 U	0.793 U	0.079 U	**0.095**	3.42 U	0.159 U	**1.11**	0.079 U	0.079 U	0.079 U
Trichloroethene	0.220	**1.05**	**2.77**	**2.82**	**0.349**	**1.29**	**0.333**	**132**	**2.32 J**	**0.172 J**	**1,630**	**3.12**	**0.065 J**	0.107 U
Vinyl chloride	2.80	0.256 U	0.051 J	0.058 J	0.128 U	0.511 U	0.051 U	0.051 U	2.3 U	0.102 U	0.256 U	0.051 U	0.051 U	0.051 U

Note 1: U.S. Environmental Protection Agency, *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils*, Table 2c, Target Shallow Soil Gas Concentration to Satisfy Both the Prescribed Risk Level and the Target Hazard Index, dated November 2002.
Bold results indicate analytes that were detected.
Results for samples SV07-1-B, SV08-1-B-REDO, and SV12-1-B were diluted and re-analyzed to quantify the results within the calibration range for CT and in sample SV13-1-B-REDO for TCE.

Table C-2: Indoor Air Sample Results Comparison with EPA Indoor Air Generic Screening Levels and NYSDoH Indoor Air Guidelines.

BUILDING			201	201	201	201	203	203	203	202	202	204	204			
LOCATION	EPA	NYSDoH	IA05-1-B	IA06-1-B	IA06-1-B-FD	IA07-1-B	IA08-1-B	IA09-1-B	IA10-1-B	IA11-1-B	IA12-1-B	IA14-1-B	IA15-1-B	IABG-1-B	IABG-2-B	TRIP BLANK
SAMPLING DATE	Indoor Air	Indoor Air	3/6/2014	3/6/2014	3/6/2014	3/6/2014	3/6/2014	3/5/2014	3/5/2014	3/6/2014	3/6/2014	3/5/2014	3/5/2014	3/6/2014	3/6/2014	3/5/2014
LAB SAMPLE ID	Screening Level[1]	Guideline[2]	L1405009-05	L1405009-06	L1405009-07	L1405009-08	L1405009-10	L1405009-11	L1405009-12	L1405009-18	L1405009-23	L1405009-29	L1405009-30	L1405009-09	L1405009-19	L1405009-25
Volatile Organics in Air by SIM (µg/m³)																
1,1,1-Trichloroethane	2,200		0.109 U	**0.038 J**	**0.038 J**	0.109 U	**0.737**	**0.196**	**0.18**	**0.469**	**0.147**	**0.038 J**	**0.044 J**	0.109 U	0.109 U	0.109 U
1,1,2,2-Tetrachloroethane	0.042		0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U	0.137 U
1,1,2-Trichloroethane	0.150		0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U
1,1-Dichloroethene	200		0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
Carbon tetrachloride	0.160		**0.673**	**0.692**	**0.692**	**2.640**	**2.650**	**0.692**	**0.654**	**1.950**	**1.010**	**0.516**	**0.572**	**0.447**	**0.434**	0.126 U
Chloroform	0.110		**0.068 J**	**0.068 J**	**0.068 J**	**0.073 J**	**0.317**	**0.078 J**	**0.078 J**	**0.083 J**	**0.068 J**	**0.073 J**	**0.195**	**0.064 J**	**0.068 J**	0.098 U
Chloromethane	2.40		**1.07**	**1.05**	**1.04**	**1.15**	**1.55**	**1.1**	**1.14**	**1.1**	**1.02 J**	**1.07**	**1.31**	**1.04**	**1.03**	1.03 U
cis-1,2-Dichloroethene	35.0		0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
Methylene chloride	5.20	60.0	3.47 U	3.47 U	3.47 U	1.14 U	9.48 U	3.47 U	3.47 U	4.38 U	1.13 U	1.03 U	1.06 U	3.47 U	3.47 U	**2.63 J**
Tetrachloroethene	0.81	100	**0.136**	**0.068 J**	**0.068 J**	0.258 U	**0.292**	**0.17**	**0.156**	**0.142**	**0.061 J**	**0.142**	**0.149**	**0.054 J**	**0.075 J**	0.136 U
trans-1,2-Dichloroethene	70.0		0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
Trichloroethene	0.0220	5.00	0.107 U	0.107 U	0.107 U	0.107 U	**0.752**	**0.683**	**0.623**	0.107 U	0.107 U	**0.21**	**3.92**	0.107 U	0.107 U	0.107 U
Vinyl chloride	0.280		0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U

Note 1: U.S. Environmental Protection Agency, *OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils*, Table 2c, Target Indoor Air Concentration to Satisfy Both the Prescribed Risk Level and the Target Hazard Index, dated November 2002.
Note 2: NYDEC *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, New York State Department of Health (NYSDoH) values included in Tables 3.1 and 3.3, and Matrices 1 and 2, dated October 2006.
Bold results indicate analytes that were detected.
Bold, italicized results indicate analytes that were detected at concentrations exceeding their EPA Indoor Air Screening Level or NYSDOH Indoor Air Guideline.

ANALYTICAL REPORT

Lab Number:	L1405009
Client:	Stone Environmental 535 Stone Cutters Way Montpelier, VT 05602
ATTN:	Joe Schmidl
Phone:	(802) 229-1875
Project Name:	SCOTIA NAVAL DEPOT
Project Number:	102305-R-07
Report Date:	03/25/14

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1405009-01	SV05-1-B	SCOTIA, NY	03/06/14 16:55
L1405009-02	SV07-1-B	SCOTIA, NY	03/06/14 16:40
L1405009-03	SV06-1-B	SCOTIA, NY	03/06/14 16:30
L1405009-04	SV06-1-B-FD	SCOTIA, NY	03/06/14 16:30
L1405009-05	IA05-1-B	SCOTIA, NY	03/06/14 16:50
L1405009-06	IA06-1-B	SCOTIA, NY	03/06/14 16:22
L1405009-07	IA06-1-B-FD	SCOTIA, NY	03/06/14 16:22
L1405009-08	IA07-1-B	SCOTIA, NY	03/06/14 16:38
L1405009-09	IABG-1-B	SCOTIA, NY	03/06/14 17:22
L1405009-10	IA08-1-B	SCOTIA, NY	03/06/14 16:01
L1405009-11	IA09-1-B	SCOTIA, NY	03/05/14 16:43
L1405009-12	IA10-1-B	SCOTIA, NY	03/05/14 17:09
L1405009-13	CAN-1878	SCOTIA, NY	
L1405009-14	SV09-1-B	SCOTIA, NY	03/05/14 16:40
L1405009-15	SV10-1-B-REDO	SCOTIA, NY	03/05/14 13:20
L1405009-16	SV08-1-B-REDO	SCOTIA, NY	03/05/14 18:06
L1405009-17	SV11-1-B	SCOTIA, NY	03/06/14 12:12
L1405009-18	IA11-1-B	SCOTIA, NY	03/06/14 16:00
L1405009-19	IABG-2-B	SCOTIA, NY	03/06/14 15:43
L1405009-20	SV13-1-B-REDO	SCOTIA, NY	03/06/14 17:05
L1405009-21	SV12-1-B	SCOTIA, NY	03/06/14 16:50
L1405009-22	SV14-1-B-REDO	SCOTIA, NY	03/06/14 17:25
L1405009-23	IA12-1-B	SCOTIA, NY	03/06/14 16:53
L1405009-24	SV15-1-B	SCOTIA, NY	03/05/14 16:53
L1405009-25	TRIP-BLANK	SCOTIA, NY	
L1405009-26	CAN-1551	SCOTIA, NY	
L1405009-27	CAN-1870	SCOTIA, NY	
L1405009-28	CAN-1864	SCOTIA, NY	
L1405009-29	IA14-1-B	SCOTIA, NY	03/05/14 16:36
L1405009-30	IA15-1-B	SCOTIA, NY	03/05/14 16:52

Project Name: SCOTIA NAVAL DEPOT **Lab Number:** L1405009
Project Number: 102305-R-07 **Report Date:** 03/25/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	SCOTIA NAVAL DEPOT	**Lab Number:**	L1405009
Project Number:	102305-R-07	**Report Date:**	03/25/14

Case Narrative (continued)

REISSUE

Report Submission

This report replaces the report previously issued on March 24, 2014. This report has been reissued revise the list of compounds reported.

Volatile Organics in Air

Canisters were released from the laboratory on February 28, 2014. The canister certification results are provided as an addendum.

The samples designated IA14-1-B and IA-15-1-B were omitted from the original chain of custody form, the client was contacted and a revised chain of custody was provided. Both the original chain of custody and the revised chain of custody forms are included in this submittal.

The sample designated IAB6-1-B (L1405009-09) had a RPD for the pre- and post-flow controller calibration check (31% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 10.0 mL/minute; the final flow rate was 13.6 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.9 inches of mercury.

The sample designated SV10-1-B-REDO (L1405009-15) had a RPD for the pre- and post-flow controller calibration check (48% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 9.9 mL/minute; the final flow rate was 16.1 mL/minute. The final pressure recorded by the laboratory of the associated canister was 2.4 inches of mercury.

The sample designated SV11-1-B (L1405009-17) had a RPD for the pre- and post-flow controller calibration check (97% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 9.7 mL/minute; the final flow rate was 28 mL/minute. The final pressure recorded by the laboratory of the associated canister was -4.0 inches of mercury.

Project Name: SCOTIA NAVAL DEPOT **Lab Number:** L1405009
Project Number: 102305-R-07 **Report Date:** 03/25/14

Case Narrative (continued)

The sample designated SV12-1-B (L1405009-21) had a RPD for the pre- and post-flow controller calibration check (34% RPD) that was outside of the control limit (20% RPD). The initial flow rate for the flow controller was 10.0 mL/minute; the final flow rate was 7.1 mL/minute. The final pressure recorded by the laboratory of the associated canister was -7.6 inches of mercury.

Samples L1405009-01, -03, -04 have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

Samples L1405009-02, -16, -20, -21 and WG677306-5 Duplicate were diluted and re-analyzed to quantify the samples within the calibration range. The results should be considered estimated, and are qualified with an E flag, for any compounds that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compounds that exceeded the calibration range.

Samples L1405009-02, -16, -17, -20, -21 and WG677306-5 Duplicate have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

Sample L1405009-02 The presence of Acetone could not be determined in this sample due to a non-target compound interfering with the identification and quantification of this compound.

Samples L1405009-03 and -04 have elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the samples.

Sample L1405009-04 results for p-Isopropyltoluene should be considered estimated due to co-elution with a non-target peak.

Sample L1405009-08 results for Acetone should be considered estimated due to co-elution with a non-target peak.

Project Name:	SCOTIA NAVAL DEPOT	**Lab Number:**	L1405009
Project Number:	102305-R-07	**Report Date:**	03/25/14

Case Narrative (continued)

Samples L1405009-22 and -30 results for Acetone should be considered estimated due to co-elution with a non-target peak.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 03/25/14

AIR

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-01 D
Client ID: SV05-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 22:00
Analyst: RY

Date Collected: 03/06/14 16:55
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.310	2.50	0.240	0.640	5.16	0.496	J	5
Vinyl chloride	ND	0.100	0.035	ND	0.256	0.090		5
1,1-Dichloroethene	ND	0.100	0.035	ND	0.396	0.139		5
Methylene chloride	ND	5.00	1.25	ND	17.4	4.34		5
trans-1,2-Dichloroethene	ND	0.100	0.030	ND	0.396	0.119		5
cis-1,2-Dichloroethene	ND	0.100	0.033	ND	0.396	0.131		5
Chloroform	0.605	0.100	0.030	2.95	0.488	0.147		5
1,1,1-Trichloroethane	0.135	0.100	0.035	0.737	0.546	0.191		5
Carbon tetrachloride	19.4	0.100	0.040	122	0.629	0.252		5
Trichloroethene	0.195	0.100	0.035	1.05	0.537	0.188		5
1,1,2-Trichloroethane	ND	0.100	0.045	ND	0.546	0.246		5
Tetrachloroethene	0.080	0.100	0.040	0.542	0.678	0.271	J	5
1,1,2,2-Tetrachloroethane	ND	0.100	0.035	ND	0.687	0.240		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	97		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-02 D
Client ID: SV07-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 22:32
Analyst: RY

Date Collected: 03/06/14 16:40
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.388	1.25	0.120	0.801	2.58	0.248	J	2.5
Vinyl chloride	ND	0.050	0.018	ND	0.128	0.045		2.5
1,1-Dichloroethene	ND	0.050	0.018	ND	0.198	0.069		2.5
Methylene chloride	ND	2.50	0.625	ND	8.69	2.17		2.5
trans-1,2-Dichloroethene	ND	0.050	0.015	ND	0.198	0.060		2.5
cis-1,2-Dichloroethene	ND	0.050	0.017	ND	0.198	0.065		2.5
Chloroform	0.598	0.050	0.015	2.92	0.244	0.073		2.5
1,1,1-Trichloroethane	0.255	0.050	0.018	1.39	0.273	0.096		2.5
Carbon tetrachloride	194	0.050	0.020	1220	0.315	0.126	E	2.5
Trichloroethene	0.065	0.050	0.018	0.349	0.269	0.094		2.5
1,1,2-Trichloroethane	ND	0.050	0.023	ND	0.273	0.123		2.5
Tetrachloroethene	0.128	0.050	0.020	0.868	0.339	0.136		2.5
1,1,2,2-Tetrachloroethane	ND	0.050	0.018	ND	0.343	0.120		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	99		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-02 D2
Client ID: SV07-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 08:47
Analyst: RY

Date Collected: 03/06/14 16:40
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Carbon tetrachloride	192	0.100	0.040	1210	0.629	0.252		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	96		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-03 D
Client ID: SV06-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 23:04
Analyst: RY

Date Collected: 03/06/14 16:30
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.160	1.25	0.120	0.330	2.58	0.248	J	2.5
Vinyl chloride	0.020	0.050	0.018	0.051	0.128	0.045	J	2.5
1,1-Dichloroethene	ND	0.050	0.018	ND	0.198	0.069		2.5
Methylene chloride	ND	2.50	0.625	ND	8.69	2.17		2.5
trans-1,2-Dichloroethene	ND	0.050	0.015	ND	0.198	0.060		2.5
cis-1,2-Dichloroethene	ND	0.050	0.017	ND	0.198	0.065		2.5
Chloroform	0.345	0.050	0.015	1.68	0.244	0.073		2.5
1,1,1-Trichloroethane	4.98	0.050	0.018	27.2	0.273	0.096		2.5
Carbon tetrachloride	1.61	0.050	0.020	10.1	0.315	0.126		2.5
Trichloroethene	0.515	0.050	0.018	2.77	0.269	0.094		2.5
1,1,2-Trichloroethane	ND	0.050	0.023	ND	0.273	0.123		2.5
Tetrachloroethene	0.502	0.050	0.020	3.40	0.339	0.136		2.5
1,1,2,2-Tetrachloroethane	ND	0.050	0.018	ND	0.343	0.120		2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	102		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-04 D
Client ID: SV06-1-B-FD
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 23:35
Analyst: RY

Date Collected: 03/06/14 16:30
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.180	1.25	0.120	0.372	2.58	0.248	J	2.5
Vinyl chloride	0.023	0.050	0.018	0.058	0.128	0.045	J	2.5
1,1-Dichloroethene	ND	0.050	0.018	ND	0.198	0.069		2.5
Methylene chloride	ND	2.50	0.625	ND	8.69	2.17		2.5
trans-1,2-Dichloroethene	ND	0.050	0.015	ND	0.198	0.060		2.5
cis-1,2-Dichloroethene	ND	0.050	0.017	ND	0.198	0.065		2.5
Chloroform	0.350	0.050	0.015	1.71	0.244	0.073		2.5
1,1,1-Trichloroethane	5.00	0.050	0.018	27.3	0.273	0.096		2.5
Carbon tetrachloride	1.61	0.050	0.020	10.1	0.315	0.126		2.5
Trichloroethene	0.525	0.050	0.018	2.82	0.269	0.094		2.5
1,1,2-Trichloroethane	ND	0.050	0.023	ND	0.273	0.123		2.5
Tetrachloroethene	0.508	0.050	0.020	3.44	0.339	0.136		2.5
1,1,2,2-Tetrachloroethane	ND	0.050	0.018	ND	0.343	0.120		2.5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	97		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	101		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-05
Client ID: IA05-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 19:35
Analyst: RY

Date Collected: 03/06/14 16:50
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.516	0.500	0.048	1.07	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.014	0.020	0.006	0.068	0.098	0.029	J	1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	0.107	0.020	0.008	0.673	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.020	0.020	0.008	0.136	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	95		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-06
Client ID: IA06-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 20:38
Analyst: RY

Date Collected: 03/06/14 16:22
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.507	0.500	0.048	1.05	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.014	0.020	0.006	0.068	0.098	0.029	J	1
1,1,1-Trichloroethane	0.007	0.020	0.007	0.038	0.109	0.038	J	1
Carbon tetrachloride	0.110	0.020	0.008	0.692	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.010	0.020	0.008	0.068	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-07
Client ID: IA06-1-B-FD
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 21:10
Analyst: RY

Date Collected: 03/06/14 16:22
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.502	0.500	0.048	1.04	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.014	0.020	0.006	0.068	0.098	0.029	J	1
1,1,1-Trichloroethane	0.007	0.020	0.007	0.038	0.109	0.038	J	1
Carbon tetrachloride	0.110	0.020	0.008	0.692	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.010	0.020	0.008	0.068	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-08
Client ID: IA07-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 21:42
Analyst: RY

Date Collected: 03/06/14 16:38
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.555	0.500	0.048	1.15	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.327	1.00	0.250	1.14	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.015	0.020	0.006	0.073	0.098	0.029	J	1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	0.419	0.020	0.008	2.64	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.038	0.020	0.008	0.258	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-09
Client ID: IABG-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 22:14
Analyst: RY

Date Collected: 03/06/14 17:22
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.503	0.500	0.048	1.04	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.013	0.020	0.006	0.064	0.098	0.029	J	1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	0.071	0.020	0.008	0.447	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.008	0.020	0.008	0.054	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-10
Client ID: IA08-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 22:45
Analyst: RY

Date Collected: 03/06/14 16:01
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.750	0.500	0.048	1.55	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	2.73	1.00	0.250	9.48	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.065	0.020	0.006	0.317	0.098	0.029		1
1,1,1-Trichloroethane	0.135	0.020	0.007	0.737	0.109	0.038		1
Carbon tetrachloride	0.421	0.020	0.008	2.65	0.126	0.050		1
Trichloroethene	0.140	0.020	0.007	0.752	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.043	0.020	0.008	0.292	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	88		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-11
Client ID: IA09-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 23:17
Analyst: RY

Date Collected: 03/05/14 16:43
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.531	0.500	0.048	1.10	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.016	0.020	0.006	0.078	0.098	0.029	J	1
1,1,1-Trichloroethane	0.036	0.020	0.007	0.196	0.109	0.038		1
Carbon tetrachloride	0.110	0.020	0.008	0.692	0.126	0.050		1
Trichloroethene	0.127	0.020	0.007	0.683	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.025	0.020	0.008	0.170	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-12
Client ID: IA10-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 23:49
Analyst: RY

Date Collected: 03/05/14 17:09
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.552	0.500	0.048	1.14	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.016	0.020	0.006	0.078	0.098	0.029	J	1
1,1,1-Trichloroethane	0.033	0.020	0.007	0.180	0.109	0.038		1
Carbon tetrachloride	0.104	0.020	0.008	0.654	0.126	0.050		1
Trichloroethene	0.116	0.020	0.007	0.623	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.023	0.020	0.008	0.156	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	90		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-14
Client ID: SV09-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 20:25
Analyst: RY

Date Collected: 03/05/14 16:40
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.087	0.500	0.048	0.180	1.03	0.099	J	1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.547	1.00	0.250	1.90	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.158	0.020	0.006	0.772	0.098	0.029		1
1,1,1-Trichloroethane	13.3	0.020	0.007	72.6	0.109	0.038		1
Carbon tetrachloride	10.9	0.020	0.008	68.6	0.126	0.050		1
Trichloroethene	0.062	0.020	0.007	0.333	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.050	0.020	0.008	0.339	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	99		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-15
Client ID: SV10-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 20:57
Analyst: RY

Date Collected: 03/05/14 13:20
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.131	0.500	0.048	0.271	1.03	0.099	J	1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	0.007	0.020	0.007	0.028	0.079	0.028	J	1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	0.024	0.020	0.006	0.095	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.135	0.020	0.006	0.659	0.098	0.029		1
1,1,1-Trichloroethane	8.37	0.020	0.007	45.7	0.109	0.038		1
Carbon tetrachloride	3.54	0.020	0.008	22.3	0.126	0.050		1
Trichloroethene	24.5	0.020	0.007	132	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.034	0.020	0.008	0.231	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	95		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-16 D
Client ID: SV08-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 00:07
Analyst: RY

Date Collected: 03/05/14 18:06
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.405	2.50	0.240	0.836	5.16	0.496	J	5
Vinyl chloride	ND	0.100	0.035	ND	0.256	0.090		5
1,1-Dichloroethene	0.060	0.100	0.035	0.238	0.396	0.139	J	5
Methylene chloride	ND	5.00	1.25	ND	17.4	4.34		5
trans-1,2-Dichloroethene	ND	0.100	0.030	ND	0.396	0.119		5
cis-1,2-Dichloroethene	ND	0.100	0.033	ND	0.396	0.131		5
Chloroform	12.8	0.100	0.030	62.5	0.488	0.147		5
1,1,1-Trichloroethane	158	0.100	0.035	862	0.546	0.191		5
Carbon tetrachloride	508	0.100	0.040	3200	0.629	0.252	E	5
Trichloroethene	0.130	0.100	0.035	0.699	0.537	0.188		5
1,1,2-Trichloroethane	ND	0.100	0.045	ND	0.546	0.246		5
Tetrachloroethene	0.100	0.100	0.040	0.678	0.678	0.271		5
1,1,2,2-Tetrachloroethane	ND	0.100	0.035	ND	0.687	0.240		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	100		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	91		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-16 D2
Client ID: SV08-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/24/14 14:07
Analyst: RY

Date Collected: 03/05/14 18:06
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Carbon tetrachloride	520	0.447	0.179	3270	2.81	1.13		22.36

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	99		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	102		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-17 D
Client ID: SV11-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 08:15
Analyst: RY

Date Collected: 03/06/14 12:12
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	ND	21.6	2.07	ND	44.6	4.27		43.1
Vinyl chloride	ND	0.862	0.302	ND	2.20	0.772		43.1
1,1-Dichloroethene	ND	0.862	0.302	ND	3.42	1.20		43.1
Methylene chloride	ND	43.1	10.8	ND	150	37.5		43.1
trans-1,2-Dichloroethene	ND	0.862	0.259	ND	3.42	1.03		43.1
cis-1,2-Dichloroethene	ND	0.862	0.284	ND	3.42	1.13		43.1
Chloroform	1.72	0.862	0.259	8.40	4.21	1.26		43.1
1,1,1-Trichloroethane	17.6	0.862	0.302	96.0	4.70	1.65		43.1
Carbon tetrachloride	35.4	0.862	0.345	223	5.42	2.17		43.1
Trichloroethene	0.431	0.862	0.302	2.32	4.63	1.62	J	43.1
1,1,2-Trichloroethane	ND	0.862	0.388	ND	4.70	2.12		43.1
Tetrachloroethene	ND	0.862	0.345	ND	5.85	2.34		43.1
1,1,2,2-Tetrachloroethane	ND	0.862	0.302	ND	5.92	2.07		43.1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	95		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	103		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-18
Client ID: IA11-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 00:21
Analyst: RY

Date Collected: 03/06/14 16:00
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.534	0.500	0.048	1.10	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	1.26	1.00	0.250	4.38	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.017	0.020	0.006	0.083	0.098	0.029	J	1
1,1,1-Trichloroethane	0.086	0.020	0.007	0.469	0.109	0.038		1
Carbon tetrachloride	0.310	0.020	0.008	1.95	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.021	0.020	0.008	0.142	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	93		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-19
Client ID: IABG-2-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 00:53
Analyst: RY

Date Collected: 03/06/14 15:43
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.500	0.500	0.048	1.03	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.014	0.020	0.006	0.068	0.098	0.029	J	1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	0.069	0.020	0.008	0.434	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.011	0.020	0.008	0.075	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	88		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	92		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-20 D
Client ID: SV13-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 01:11
Analyst: RY

Date Collected: 03/06/14 17:05
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.360	2.50	0.240	0.743	5.16	0.496	J	5
Vinyl chloride	ND	0.100	0.035	ND	0.256	0.090		5
1,1-Dichloroethene	ND	0.100	0.035	ND	0.396	0.139		5
Methylene chloride	3.16	5.00	1.25	11.0	17.4	4.34	J	5
trans-1,2-Dichloroethene	0.280	0.100	0.030	1.11	0.396	0.119		5
cis-1,2-Dichloroethene	0.300	0.100	0.033	1.19	0.396	0.131		5
Chloroform	8.70	0.100	0.030	42.5	0.488	0.147		5
1,1,1-Trichloroethane	1.48	0.100	0.035	8.07	0.546	0.191		5
Carbon tetrachloride	149	0.100	0.040	937	0.629	0.252		5
Trichloroethene	297	0.100	0.035	1600	0.537	0.188	E	5
1,1,2-Trichloroethane	ND	0.100	0.045	ND	0.546	0.246		5
Tetrachloroethene	0.555	0.100	0.040	3.76	0.678	0.271		5
1,1,2,2-Tetrachloroethane	ND	0.100	0.035	ND	0.687	0.240		5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	92		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	91		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-20 D2
Client ID: SV13-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 10:22
Analyst: RY

Date Collected: 03/06/14 17:05
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Trichloroethene	303	0.200	0.070	1630	1.07	0.376		10

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	87		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	85		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-21 D
Client ID: SV12-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 01:42
Analyst: RY

Date Collected: 03/06/14 16:50
Date Received: 03/11/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.192	1.00	0.096	0.396	2.07	0.198	J	2
Vinyl chloride	ND	0.040	0.014	ND	0.102	0.036		2
1,1-Dichloroethene	ND	0.040	0.014	ND	0.159	0.056		2
Methylene chloride	ND	2.00	0.500	ND	6.95	1.74		2
trans-1,2-Dichloroethene	ND	0.040	0.012	ND	0.159	0.048		2
cis-1,2-Dichloroethene	ND	0.040	0.013	ND	0.159	0.052		2
Chloroform	0.470	0.040	0.012	2.30	0.195	0.059		2
1,1,1-Trichloroethane	18.9	0.040	0.014	103	0.218	0.076		2
Carbon tetrachloride	148	0.040	0.016	931	0.252	0.101	E	2
Trichloroethene	0.032	0.040	0.014	0.172	0.215	0.075	J	2
1,1,2-Trichloroethane	ND	0.040	0.018	ND	0.218	0.098		2
Tetrachloroethene	ND	0.040	0.016	ND	0.271	0.108		2
1,1,2,2-Tetrachloroethane	ND	0.040	0.014	ND	0.275	0.096		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	93		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-21 D2
Client ID: SV12-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/23/14 10:54
Analyst: RY

Date Collected: 03/06/14 16:50
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Carbon tetrachloride	146	0.100	0.040	918	0.629	0.252		5

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	91		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-22
Client ID: SV14-1-B-REDO
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 19:54
Analyst: RY

Date Collected: 03/06/14 17:25
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.530	0.500	0.048	1.09	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.456	1.00	0.250	1.58	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.121	0.020	0.006	0.591	0.098	0.029		1
1,1,1-Trichloroethane	0.430	0.020	0.007	2.35	0.109	0.038		1
Carbon tetrachloride	0.316	0.020	0.008	1.99	0.126	0.050		1
Trichloroethene	0.581	0.020	0.007	3.12	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	9.35	0.020	0.008	63.4	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	86		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	78		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-23
Client ID: IA12-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 18:19
Analyst: RY

Date Collected: 03/06/14 16:53
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.496	0.500	0.048	1.02	1.03	0.099	J	1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.326	1.00	0.250	1.13	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.014	0.020	0.006	0.068	0.098	0.029	J	1
1,1,1-Trichloroethane	0.027	0.020	0.007	0.147	0.109	0.038		1
Carbon tetrachloride	0.160	0.020	0.008	1.01	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.009	0.020	0.008	0.061	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-24
Client ID: SV15-1-B
Sample Location: SCOTIA, NY
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 21:29
Analyst: RY

Date Collected: 03/05/14 16:53
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.262	0.500	0.048	0.541	1.03	0.099	J	1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.750	1.00	0.250	2.61	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.026	0.020	0.006	0.127	0.098	0.029		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	0.123	0.020	0.008	0.774	0.126	0.050		1
Trichloroethene	0.012	0.020	0.007	0.065	0.107	0.038	J	1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.011	0.020	0.008	0.075	0.136	0.054	J	1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-25
Client ID: TRIP-BLANK
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 19:03
Analyst: RY

Date Collected:
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.756	1.00	0.250	2.63	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-29
Client ID: IA14-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 18:50
Analyst: RY

Date Collected: 03/05/14 16:36
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.518	0.500	0.048	1.07	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.297	1.00	0.250	1.03	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.015	0.020	0.006	0.073	0.098	0.029	J	1
1,1,1-Trichloroethane	0.007	0.020	0.007	0.038	0.109	0.038	J	1
Carbon tetrachloride	0.082	0.020	0.008	0.516	0.126	0.050		1
Trichloroethene	0.039	0.020	0.007	0.210	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.021	0.020	0.008	0.142	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

SAMPLE RESULTS

Lab ID: L1405009-30
Client ID: IA15-1-B
Sample Location: SCOTIA, NY
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 19:22
Analyst: RY

Date Collected: 03/05/14 16:52
Date Received: 03/11/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Chloromethane	0.633	0.500	0.048	1.31	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	0.306	1.00	0.250	1.06	3.47	0.869	J	1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	0.040	0.020	0.006	0.195	0.098	0.029		1
1,1,1-Trichloroethane	0.008	0.020	0.007	0.044	0.109	0.038	J	1
Carbon tetrachloride	0.091	0.020	0.008	0.572	0.126	0.050		1
Trichloroethene	0.729	0.020	0.007	3.92	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	0.022	0.020	0.008	0.149	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	89		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/21/14 15:35

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 05-12,18-19,25 Batch: WG677158-4								
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/22/14 13:44

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-04,14-17,20-24,29-30 Batch: WG677306-4								
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07
Lab Number: L1405009
Report Date: 03/25/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM
Analytical Date: 03/24/14 13:17

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 16 Batch: WG677306-9								
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-12,18-19,25 Batch: WG677158-3								
Dichlorodifluoromethane	112		-		70-130	-		25
Chloromethane	91		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	92		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	100		-		70-130	-		25
Bromomethane	89		-		70-130	-		25
Chloroethane	90		-		70-130	-		25
Acetone	89		-		70-130	-		25
Trichlorofluoromethane	88		-		70-130	-		25
Acrylonitrile	90		-		70-130	-		25
1,1-Dichloroethene	88		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	92		-		70-130	-		25
trans-1,2-Dichloroethene	81		-		70-130	-		25
1,1-Dichloroethane	92		-		70-130	-		25
Methyl tert butyl ether	86		-		70-130	-		25
2-Butanone	95		-		70-130	-		25
cis-1,2-Dichloroethene	104		-		70-130	-		25
Chloroform	96		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
1,1,1-Trichloroethane	93		-		70-130	-		25

Lab Control Sample Analysis
Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-12,18-19,25 Batch: WG677158-3								
Benzene	99		-		70-130	-		25
Carbon tetrachloride	94		-		70-130	-		25
1,2-Dichloropropane	103		-		70-130	-		25
Bromodichloromethane	97		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
cis-1,3-Dichloropropene	102		-		70-130	-		25
4-Methyl-2-pentanone	97		-		70-130	-		25
trans-1,3-Dichloropropene	82		-		70-130	-		25
1,1,2-Trichloroethane	103		-		70-130	-		25
Toluene	114		-		70-130	-		25
Dibromochloromethane	109		-		70-130	-		25
1,2-Dibromoethane	115		-		70-130	-		25
Tetrachloroethene	113		-		70-130	-		25
1,1,1,2-Tetrachloroethane	110		-		70-130	-		25
Chlorobenzene	115		-		70-130	-		25
Ethylbenzene	113		-		70-130	-		25
p/m-Xylene	114		-		70-130	-		25
Bromoform	105		-		70-130	-		25
Styrene	115		-		70-130	-		25
1,1,2,2-Tetrachloroethane	121		-		70-130	-		25
o-Xylene	115		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-12,18-19,25 Batch: WG677158-3								
Isopropylbenzene	115		-		70-130	-		25
4-Ethyltoluene	103		-		70-130	-		25
1,3,5-Trimethylbenzene	116		-		70-130	-		25
1,2,4-Trimethylbenzene	116		-		70-130	-		25
1,3-Dichlorobenzene	116		-		70-130	-		25
1,4-Dichlorobenzene	115		-		70-130	-		25
sec-Butylbenzene	114		-		70-130	-		25
p-Isopropyltoluene	105		-		70-130	-		25
1,2-Dichlorobenzene	116		-		70-130	-		25
n-Butylbenzene	115		-		70-130	-		25
1,2,4-Trichlorobenzene	115		-		70-130	-		25
Naphthalene	116		-		70-130	-		25
1,2,3-Trichlorobenzene	112		-		70-130	-		25
Hexachlorobutadiene	112		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04,14-17,20-24,29-30 Batch: WG677306-3								
Dichlorodifluoromethane	86		-		70-130	-		25
Chloromethane	91		-		70-130	-		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	89		-		70-130	-		25
Vinyl chloride	91		-		70-130	-		25
1,3-Butadiene	101		-		70-130	-		25
Bromomethane	89		-		70-130	-		25
Chloroethane	89		-		70-130	-		25
Acetone	90		-		70-130	-		25
Trichlorofluoromethane	88		-		70-130	-		25
Acrylonitrile	90		-		70-130	-		25
1,1-Dichloroethene	87		-		70-130	-		25
Methylene chloride	92		-		70-130	-		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	91		-		70-130	-		25
trans-1,2-Dichloroethene	80		-		70-130	-		25
1,1-Dichloroethane	91		-		70-130	-		25
Methyl tert butyl ether	80		-		70-130	-		25
2-Butanone	93		-		70-130	-		25
cis-1,2-Dichloroethene	101		-		70-130	-		25
Chloroform	95		-		70-130	-		25
1,2-Dichloroethane	85		-		70-130	-		25
1,1,1-Trichloroethane	94		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04,14-17,20-24,29-30 Batch: WG677306-3								
Benzene	98		-		70-130	-		25
Carbon tetrachloride	96		-		70-130	-		25
1,2-Dichloropropane	103		-		70-130	-		25
Bromodichloromethane	98		-		70-130	-		25
Trichloroethene	101		-		70-130	-		25
cis-1,3-Dichloropropene	99		-		70-130	-		25
4-Methyl-2-pentanone	98		-		70-130	-		25
trans-1,3-Dichloropropene	80		-		70-130	-		25
1,1,2-Trichloroethane	103		-		70-130	-		25
Toluene	112		-		70-130	-		25
Dibromochloromethane	109		-		70-130	-		25
1,2-Dibromoethane	114		-		70-130	-		25
Tetrachloroethene	111		-		70-130	-		25
1,1,1,2-Tetrachloroethane	110		-		70-130	-		25
Chlorobenzene	115		-		70-130	-		25
Ethylbenzene	111		-		70-130	-		25
p/m-Xylene	113		-		70-130	-		25
Bromoform	104		-		70-130	-		25
Styrene	112		-		70-130	-		25
1,1,2,2-Tetrachloroethane	119		-		70-130	-		25
o-Xylene	113		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04,14-17,20-24,29-30 Batch: WG677306-3								
Isopropylbenzene	114		-		70-130	-		25
4-Ethyltoluene	102		-		70-130	-		25
1,3,5-Trimethylbenzene	115		-		70-130	-		25
1,2,4-Trimethylbenzene	115		-		70-130	-		25
1,3-Dichlorobenzene	116		-		70-130	-		25
1,4-Dichlorobenzene	115		-		70-130	-		25
sec-Butylbenzene	113		-		70-130	-		25
p-Isopropyltoluene	104		-		70-130	-		25
1,2-Dichlorobenzene	116		-		70-130	-		25
n-Butylbenzene	115		-		70-130	-		25
1,2,4-Trichlorobenzene	113		-		70-130	-		25
Naphthalene	114		-		70-130	-		25
1,2,3-Trichlorobenzene	111		-		70-130	-		25
Hexachlorobutadiene	112		-		70-130	-		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab	Associated sample(s): 16		Batch: WG677306-8					
Carbon tetrachloride	95		-		70-130	-		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-12,18-19,25 QC Batch ID: WG677158-5 QC Sample: L1405009-05 Client ID: IA05-1-B						
Chloromethane	0.516	0.521	ppbV	1		25
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Chloroform	0.014J	0.014J	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.107	0.105	ppbV	2		25
Trichloroethene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Tetrachloroethene	0.020	0.019J	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25

Lab Duplicate Analysis
Batch Quality Control

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04,14-17,20-24,29-30 QC Batch ID: WG677306-5 QC Sample: L1405009-16 Client ID: SV08-1-B-REDO					
Chloromethane	0.405J	0.385J	ppbV	NC	25
Vinyl chloride	ND	ND	ppbV	NC	25
1,1-Dichloroethene	0.060J	0.060J	ppbV	NC	25
Methylene chloride	ND	ND	ppbV	NC	25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC	25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC	25
Chloroform	12.8	12.8	ppbV	0	25
1,1,1-Trichloroethane	158	162	ppbV	3	25
Carbon tetrachloride	508E	522E	ppbV	3	25
Trichloroethene	0.130	0.120	ppbV	8	25
1,1,2-Trichloroethane	ND	ND	ppbV	NC	25
Tetrachloroethene	0.100	0.095J	ppbV	NC	25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC	25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-04,14-17,20-24,29-30 QC Batch ID: WG677306-5 QC Sample: L1405009-16 Client ID: SV08-1-B-REDO					
Carbon tetrachloride	520	549	ppbV	5	25

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1405009-01	SV05-1-B	0103	#30 SV	02/28/14	98615		-	-	-	Pass	9.7	11.3	15
L1405009-01	SV05-1-B	1530	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.5	-7.3	-	-	-	-
L1405009-02	SV07-1-B	0255	#20 SV	02/28/14	98615		-	-	-	Pass	9.8	9.9	1
L1405009-02	SV07-1-B	594	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.6	-6.8	-	-	-	-
L1405009-03	SV06-1-B	0150	#30 SV	02/28/14	98615		-	-	-	Pass	10.0	10.5	5
L1405009-03	SV06-1-B	1563	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.6	-5.2	-	-	-	-
L1405009-04	SV06-1-B-FD	0314	#16 AMB	02/28/14	98615		-	-	-	Pass	9.8	10.5	7
L1405009-04	SV06-1-B-FD	998	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.4	-5.4	-	-	-	-
L1405009-05	IA05-1-B	0226	#16 AMB	02/28/14	98615		-	-	-	Pass	9.6	10.0	4
L1405009-05	IA05-1-B	1824	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.1	-4.8	-	-	-	-
L1405009-06	IA06-1-B	0312	#20 AMB	02/28/14	98615		-	-	-	Pass	9.8	10.0	2
L1405009-06	IA06-1-B	981	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.3	-6.7	-	-	-	-
L1405009-07	IA06-1-B-FD	0024	#16 AMB	02/28/14	98615		-	-	-	Pass	10.0	10.9	9
L1405009-07	IA06-1-B-FD	1517	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.5	-4.6	-	-	-	-
L1405009-08	IA07-1-B	0419	#16 AMB	02/28/14	98615		-	-	-	Pass	10.0	11.5	14

Project Name: SCOTIA NAVAL DEPOT

Project Number: 102305-R-07

Lab Number: L1405009

Report Date: 03/25/14

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1405009-08	IA07-1-B	745	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.4	-4.3	-	-	-	-
L1405009-09	IABG-1-B	0180	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	13.6	31
L1405009-09	IABG-1-B	955	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.4	-7.9	-	-	-	-
L1405009-10	IA08-1-B	0433	#20 SV	02/28/14	98615		-	-	-	Pass	10.0	10.5	5
L1405009-10	IA08-1-B	1700	6.0L Can	02/28/14	98615	L1404097-02	Pass	-28.9	-6.8	-	-	-	-
L1405009-11	IA09-1-B	0065	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	9.7	3
L1405009-11	IA09-1-B	986	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.4	-7.9	-	-	-	-
L1405009-12	IA10-1-B	0277	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	10.5	5
L1405009-12	IA10-1-B	1524	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.6	-4.2	-	-	-	-
L1405009-13	CAN-1878	0455	#16 AMB	02/28/14	98615		-	-	-	Pass	9.9	10.5	6
L1405009-13	CAN-1878	1878	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.4	-4.0	-	-	-	-
L1405009-14	SV09-1-B	0404	#30 AMB	02/28/14	98615		-	-	-	Pass	10.0	11.3	12
L1405009-14	SV09-1-B	1784	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.3	-3.0	-	-	-	-
L1405009-15	SV10-1-B-REDO	0146	#20 SV	02/28/14	98615		-	-	-	Pass	9.9	16.1	48
L1405009-15	SV10-1-B-REDO	1586	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.4	2.4	-	-	-	-

Project Name: SCOTIA NAVAL DEPOT

Lab Number: L1405009

Project Number: 102305-R-07

Report Date: 03/25/14

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1405009-16	SV08-1-B-REDO	0555	#20 AMB	02/28/14	98615		-	-	-	Pass	9.5	9.5	0
L1405009-16	SV08-1-B-REDO	1679	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.4	-10.0	-	-	-	-
L1405009-17	SV11-1-B	0648	#30 SV	02/28/14	98615		-	-	-	Pass	9.7	28.0	97
L1405009-17	SV11-1-B	938	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.4	-4.0	-	-	-	-
L1405009-18	IA11-1-B	0242	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	11.6	15
L1405009-18	IA11-1-B	1514	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.5	-6.0	-	-	-	-
L1405009-19	IABG-2-B	0020	#16 AMB	02/28/14	98615		-	-	-	Pass	10.0	10.5	5
L1405009-19	IABG-2-B	1881	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.6	-3.3	-	-	-	-
L1405009-20	SV13-1-B-REDO	0158	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	11.3	12
L1405009-20	SV13-1-B-REDO	1051	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.1	-11.8	-	-	-	-
L1405009-21	SV12-1-B	0578	#30 SV	02/28/14	98615		-	-	-	Pass	10.0	7.1	34
L1405009-21	SV12-1-B	646	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.0	-7.6	-	-	-	-
L1405009-22	SV14-1-B-REDO	0384	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	10.1	1
L1405009-22	SV14-1-B-REDO	1704	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.5	-16.1	-	-	-	-
L1405009-23	IA12-1-B	0424	#20 AMB	02/28/14	98615		-	-	-	Pass	10.0	10.1	1

Project Name: SCOTIA NAVAL DEPOT

Lab Number: L1405009

Project Number: 102305-R-07

Report Date: 03/25/14

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1405009-23	IA12-1-B	650	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.4	-5.0	-	-	-	-
L1405009-24	SV15-1-B	0102	#16 SV	02/28/14	98615		-	-	-	Pass	10.0	9.9	1
L1405009-24	SV15-1-B	1000	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.2	-6.3	-	-	-	-
L1405009-25	TRIP-BLANK	1800	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.3	-28.2	-	-	-	-
L1405009-26	CAN-1551	1551	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.2	-6.1	-	-	-	-
L1405009-27	CAN-1870	1870	6.0L Can	02/28/14	98615	L1404160-01	Pass	-29.3	-4.9	-	-	-	-
L1405009-28	CAN-1864	1864	6.0L Can	02/28/14	98615	L1404160-02	Pass	-29.4	-4.9	-	-	-	-
L1405009-29	IA14-1-B	1580	6.0L Can	02/28/14	98615	L1404097-03	Pass	-29.4	-4.3	-	-	-	-
L1405009-30	IA15-1-B	1821	6.0L Can	02/28/14	98615	L1404097-02	Pass	-29.4	-6.3	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02
Client ID: CAN 1824 SHELF 40
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/26/14 14:20
Analyst: RY

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	0.063	ND	0.707	0.221		1
Propylene	ND	0.500	0.093	ND	0.861	0.160		1
Propane	ND	0.500	0.114	ND	0.902	0.206		1
Dichlorodifluoromethane	ND	0.200	0.047	ND	0.989	0.230		1
Chloromethane	ND	0.200	0.096	ND	0.413	0.198		1
Freon-114	ND	0.200	0.042	ND	1.40	0.293		1
Methanol	ND	5.00	0.736	ND	6.55	0.964		1
Vinyl chloride	ND	0.200	0.038	ND	0.511	0.097		1
1,3-Butadiene	ND	0.200	0.080	ND	0.442	0.177		1
Butane	ND	0.200	0.044	ND	0.475	0.105		1
Bromomethane	ND	0.200	0.070	ND	0.777	0.270		1
Chloroethane	ND	0.200	0.077	ND	0.528	0.202		1
Ethanol	ND	2.50	0.542	ND	4.71	1.02		1
Dichlorofluoromethane	ND	0.200	0.057	ND	0.842	0.241		1
Vinyl bromide	ND	0.200	0.070	ND	0.874	0.306		1
Acrolein	ND	0.500	0.114	ND	1.15	0.261		1
Acetone	ND	1.00	0.165	ND	2.38	0.392		1
Acetonitrile	ND	0.200	0.076	ND	0.336	0.128		1
Trichlorofluoromethane	ND	0.200	0.042	ND	1.12	0.234		1
Isopropanol	ND	0.500	0.053	ND	1.23	0.129		1
Acrylonitrile	ND	0.200	0.079	ND	0.434	0.171		1
Pentane	ND	0.200	0.048	ND	0.590	0.140		1
Ethyl ether	ND	0.200	0.059	ND	0.606	0.179		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.224		1
Tertiary butyl Alcohol	ND	0.500	0.060	ND	1.52	0.182		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02
Client ID: CAN 1824 SHELF 40
Sample Location:
Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	0.299	ND	3.47	1.04		1
3-Chloropropene	ND	0.200	0.081	ND	0.626	0.254		1
Carbon disulfide	ND	0.200	0.035	ND	0.623	0.107		1
Freon-113	ND	0.200	0.051	ND	1.53	0.392		1
trans-1,2-Dichloroethene	ND	0.200	0.074	ND	0.793	0.293		1
1,1-Dichloroethane	ND	0.200	0.077	ND	0.809	0.312		1
Methyl tert butyl ether	ND	0.200	0.053	ND	0.721	0.190		1
Vinyl acetate	ND	0.200	0.057	ND	0.704	0.200		1
2-Butanone	ND	0.200	0.047	ND	0.590	0.139		1
cis-1,2-Dichloroethene	ND	0.200	0.059	ND	0.793	0.233		1
Ethyl Acetate	ND	0.500	0.131	ND	1.80	0.472		1
Chloroform	ND	0.200	0.053	ND	0.977	0.259		1
Tetrahydrofuran	ND	0.200	0.061	ND	0.590	0.179		1
2,2-Dichloropropane	ND	0.200	0.058	ND	0.924	0.269		1
1,2-Dichloroethane	ND	0.200	0.055	ND	0.809	0.223		1
n-Hexane	ND	0.200	0.052	ND	0.705	0.183		1
Diisopropyl ether	ND	0.200	0.066	ND	0.836	0.274		1
tert-Butyl Ethyl Ether	ND	0.200	0.052	ND	0.836	0.215		1
1,1,1-Trichloroethane	ND	0.200	0.057	ND	1.09	0.311		1
1,1-Dichloropropene	ND	0.200	0.072	ND	0.908	0.325		1
Benzene	ND	0.200	0.054	ND	0.639	0.172		1
Carbon tetrachloride	ND	0.200	0.047	ND	1.26	0.296		1
Cyclohexane	ND	0.200	0.066	ND	0.688	0.226		1
tert-Amyl Methyl Ether	ND	0.200	0.080	ND	0.836	0.332		1
Dibromomethane	ND	0.200	0.048	ND	1.42	0.338		1
1,2-Dichloropropane	ND	0.200	0.070	ND	0.924	0.322		1
Bromodichloromethane	ND	0.200	0.066	ND	1.34	0.439		1
1,4-Dioxane	ND	0.200	0.078	ND	0.721	0.281		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02 Date Collected: 02/25/14 16:26

Client ID: CAN 1824 SHELF 40 Date Received: 02/25/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	0.071	ND	1.07	0.382		1
2,2,4-Trimethylpentane	ND	0.200	0.066	ND	0.934	0.308		1
Methyl Methacrylate	ND	0.500	0.022	ND	2.05	0.091		1
Heptane	ND	0.200	0.055	ND	0.820	0.227		1
cis-1,3-Dichloropropene	ND	0.200	0.075	ND	0.908	0.338		1
4-Methyl-2-pentanone	ND	0.200	0.061	ND	0.820	0.249		1
trans-1,3-Dichloropropene	ND	0.200	0.069	ND	0.908	0.315		1
1,1,2-Trichloroethane	ND	0.200	0.067	ND	1.09	0.364		1
Toluene	ND	0.200	0.063	ND	0.754	0.237		1
1,3-Dichloropropane	ND	0.200	0.078	ND	0.924	0.359		1
2-Hexanone	ND	0.200	0.060	ND	0.820	0.248		1
Dibromochloromethane	ND	0.200	0.075	ND	1.70	0.636		1
1,2-Dibromoethane	ND	0.200	0.078	ND	1.54	0.599		1
Butyl acetate	ND	0.500	0.114	ND	2.38	0.542		1
Octane	ND	0.200	0.042	ND	0.934	0.197		1
Tetrachloroethene	ND	0.200	0.076	ND	1.36	0.514		1
1,1,1,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
Chlorobenzene	ND	0.200	0.079	ND	0.921	0.363		1
Ethylbenzene	ND	0.200	0.056	ND	0.869	0.241		1
p/m-Xylene	ND	0.400	0.139	ND	1.74	0.604		1
Bromoform	ND	0.200	0.052	ND	2.07	0.541		1
Styrene	ND	0.200	0.080	ND	0.852	0.340		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
o-Xylene	ND	0.200	0.063	ND	0.869	0.274		1
1,2,3-Trichloropropane	ND	0.200	0.077	ND	1.21	0.462		1
Nonane	ND	0.200	0.063	ND	1.05	0.328		1
Isopropylbenzene	ND	0.200	0.041	ND	0.983	0.202		1
Bromobenzene	ND	0.200	0.079	ND	0.793	0.313		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02 Date Collected: 02/25/14 16:26

Client ID: CAN 1824 SHELF 40 Date Received: 02/25/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	0.049	ND	1.04	0.252		1
n-Propylbenzene	ND	0.200	0.054	ND	0.983	0.265		1
4-Chlorotoluene	ND	0.200	0.076	ND	1.04	0.396		1
4-Ethyltoluene	ND	0.200	0.078	ND	0.983	0.381		1
1,3,5-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.287		1
tert-Butylbenzene	ND	0.200	0.031	ND	1.10	0.169		1
1,2,4-Trimethylbenzene	ND	0.200	0.069	ND	0.983	0.341		1
Decane	ND	0.200	0.048	ND	1.16	0.282		1
Benzyl chloride	ND	0.200	0.065	ND	1.04	0.334		1
1,3-Dichlorobenzene	ND	0.200	0.064	ND	1.20	0.383		1
1,4-Dichlorobenzene	ND	0.200	0.036	ND	1.20	0.217		1
sec-Butylbenzene	ND	0.200	0.073	ND	1.10	0.401		1
p-Isopropyltoluene	ND	0.200	0.061	ND	1.10	0.334		1
1,2-Dichlorobenzene	ND	0.200	0.061	ND	1.20	0.369		1
n-Butylbenzene	ND	0.200	0.064	ND	1.10	0.351		1
1,2-Dibromo-3-chloropropane	ND	0.200	0.074	ND	1.93	0.719		1
Undecane	ND	0.200	0.053	ND	1.28	0.338		1
Dodecane	ND	0.200	0.048	ND	1.39	0.333		1
1,2,4-Trichlorobenzene	ND	0.200	0.061	ND	1.48	0.454		1
Naphthalene	ND	0.200	0.043	ND	1.05	0.223		1
1,2,3-Trichlorobenzene	ND	0.200	0.044	ND	1.48	0.324		1
Hexachlorobutadiene	ND	0.200	0.073	ND	2.13	0.781		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-Difluorobenzene	106		60-140
Bromochloromethane	104		60-140
chlorobenzene-d5	91		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02
Client ID: CAN 1824 SHELF 40
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/26/14 14:20
Analyst: RY

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	0.006	ND	0.247	0.030		1
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Freon-114	ND	0.050	0.005	ND	0.349	0.035		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,3-Butadiene	ND	0.020	0.006	ND	0.044	0.013		1
Bromomethane	ND	0.020	0.008	ND	0.078	0.031		1
Chloroethane	ND	0.020	0.007	ND	0.053	0.019		1
Acetone	ND	2.00	0.739	ND	4.75	1.76		1
Trichlorofluoromethane	ND	0.050	0.008	ND	0.281	0.045		1
Acrylonitrile	ND	0.500	0.015	ND	1.09	0.033		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
Freon-113	ND	0.050	0.006	ND	0.383	0.046		1
Halothane	ND	0.050	0.008	ND	0.404	0.065		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
1,1-Dichloroethane	ND	0.020	0.007	ND	0.081	0.028		1
Methyl tert butyl ether	ND	0.020	0.004	ND	0.072	0.014		1
2-Butanone	ND	0.500	0.025	ND	1.47	0.073		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,2-Dichloroethane	ND	0.020	0.008	ND	0.081	0.032		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Benzene	ND	0.100	0.021	ND	0.319	0.067		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
1,2-Dichloropropane	ND	0.020	0.006	ND	0.092	0.028		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02 Date Collected: 02/25/14 16:26

Client ID: CAN 1824 SHELF 40 Date Received: 02/25/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	0.008	ND	0.134	0.054		1
1,4-Dioxane	ND	0.100	0.050	ND	0.360	0.180		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
cis-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
4-Methyl-2-pentanone	ND	0.500	0.042	ND	2.05	0.172		1
trans-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Toluene	ND	0.050	0.025	ND	0.188	0.094		1
Dibromochloromethane	ND	0.020	0.008	ND	0.170	0.068		1
1,2-Dibromoethane	ND	0.020	0.008	ND	0.154	0.062		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,1,2-Tetrachloroethane	ND	0.020	0.004	ND	0.137	0.028		1
Chlorobenzene	ND	0.020	0.008	ND	0.092	0.037		1
Ethylbenzene	ND	0.020	0.007	ND	0.087	0.030		1
p/m-Xylene	ND	0.040	0.009	ND	0.174	0.039		1
Bromoform	ND	0.020	0.015	ND	0.207	0.155		1
Styrene	ND	0.020	0.008	ND	0.085	0.034		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1
o-Xylene	ND	0.020	0.008	ND	0.087	0.035		1
Isopropylbenzene	ND	0.500	0.046	ND	2.46	0.226		1
4-Ethyltoluene	ND	0.020	0.010	ND	0.098	0.048		1
1,3,5-Trimethybenzene	ND	0.020	0.005	ND	0.098	0.025		1
1,2,4-Trimethylbenzene	ND	0.020	0.007	ND	0.098	0.034		1
1,3-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1
1,4-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.048		1
sec-Butylbenzene	ND	0.500	0.047	ND	2.74	0.258		1
p-Isopropyltoluene	ND	0.500	0.048	ND	2.74	0.263		1
1,2-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-02
Client ID: CAN 1824 SHELF 40
Sample Location:

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.500	0.045	ND	2.74	0.247		1
1,2,4-Trichlorobenzene	ND	0.050	0.010	ND	0.371	0.074		1
Naphthalene	ND	0.050	0.012	ND	0.262	0.063		1
1,2,3-Trichlorobenzene	ND	0.050	0.019	ND	0.371	0.141		1
Hexachlorobutadiene	ND	0.050	0.011	ND	0.533	0.117		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	101		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/27/14 18:31
Analyst: RY

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	0.063	ND	0.707	0.221		1
Propylene	ND	0.500	0.093	ND	0.861	0.160		1
Propane	ND	0.500	0.114	ND	0.902	0.206		1
Dichlorodifluoromethane	ND	0.200	0.047	ND	0.989	0.230		1
Chloromethane	ND	0.200	0.096	ND	0.413	0.198		1
Freon-114	ND	0.200	0.042	ND	1.40	0.293		1
Methanol	27.7	5.00	0.736	36.3	6.55	0.964		1
Vinyl chloride	ND	0.200	0.038	ND	0.511	0.097		1
1,3-Butadiene	ND	0.200	0.080	ND	0.442	0.177		1
Butane	ND	0.200	0.044	ND	0.475	0.105		1
Bromomethane	ND	0.200	0.070	ND	0.777	0.270		1
Chloroethane	ND	0.200	0.077	ND	0.528	0.202		1
Ethanol	ND	2.50	0.542	ND	4.71	1.02		1
Dichlorofluoromethane	ND	0.200	0.057	ND	0.842	0.241		1
Vinyl bromide	ND	0.200	0.070	ND	0.874	0.306		1
Acrolein	ND	0.500	0.114	ND	1.15	0.261		1
Acetone	ND	1.00	0.165	ND	2.38	0.392		1
Acetonitrile	ND	0.200	0.076	ND	0.336	0.128		1
Trichlorofluoromethane	ND	0.200	0.042	ND	1.12	0.234		1
Isopropanol	ND	0.500	0.053	ND	1.23	0.129		1
Acrylonitrile	ND	0.200	0.079	ND	0.434	0.171		1
Pentane	ND	0.200	0.048	ND	0.590	0.140		1
Ethyl ether	ND	0.200	0.059	ND	0.606	0.179		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.224		1
Tertiary butyl Alcohol	ND	0.500	0.060	ND	1.52	0.182		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:
Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	0.299	ND	3.47	1.04		1
3-Chloropropene	ND	0.200	0.081	ND	0.626	0.254		1
Carbon disulfide	ND	0.200	0.035	ND	0.623	0.107		1
Freon-113	ND	0.200	0.051	ND	1.53	0.392		1
trans-1,2-Dichloroethene	ND	0.200	0.074	ND	0.793	0.293		1
1,1-Dichloroethane	ND	0.200	0.077	ND	0.809	0.312		1
Methyl tert butyl ether	ND	0.200	0.053	ND	0.721	0.190		1
Vinyl acetate	ND	0.200	0.057	ND	0.704	0.200		1
2-Butanone	ND	0.200	0.047	ND	0.590	0.139		1
cis-1,2-Dichloroethene	ND	0.200	0.059	ND	0.793	0.233		1
Ethyl Acetate	ND	0.500	0.131	ND	1.80	0.472		1
Chloroform	ND	0.200	0.053	ND	0.977	0.259		1
Tetrahydrofuran	ND	0.200	0.061	ND	0.590	0.179		1
2,2-Dichloropropane	ND	0.200	0.058	ND	0.924	0.269		1
1,2-Dichloroethane	ND	0.200	0.055	ND	0.809	0.223		1
n-Hexane	ND	0.200	0.052	ND	0.705	0.183		1
Diisopropyl ether	ND	0.200	0.066	ND	0.836	0.274		1
tert-Butyl Ethyl Ether	ND	0.200	0.052	ND	0.836	0.215		1
1,1,1-Trichloroethane	ND	0.200	0.057	ND	1.09	0.311		1
1,1-Dichloropropene	ND	0.200	0.072	ND	0.908	0.325		1
Benzene	ND	0.200	0.054	ND	0.639	0.172		1
Carbon tetrachloride	ND	0.200	0.047	ND	1.26	0.296		1
Cyclohexane	ND	0.200	0.066	ND	0.688	0.226		1
tert-Amyl Methyl Ether	ND	0.200	0.080	ND	0.836	0.332		1
Dibromomethane	ND	0.200	0.048	ND	1.42	0.338		1
1,2-Dichloropropane	ND	0.200	0.070	ND	0.924	0.322		1
Bromodichloromethane	ND	0.200	0.066	ND	1.34	0.439		1
1,4-Dioxane	ND	0.200	0.078	ND	0.721	0.281		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03 Date Collected: 02/25/14 16:26

Client ID: CAN 1604 SHELF 41 Date Received: 02/25/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	0.071	ND	1.07	0.382		1
2,2,4-Trimethylpentane	ND	0.200	0.066	ND	0.934	0.308		1
Methyl Methacrylate	ND	0.500	0.022	ND	2.05	0.091		1
Heptane	ND	0.200	0.055	ND	0.820	0.227		1
cis-1,3-Dichloropropene	ND	0.200	0.075	ND	0.908	0.338		1
4-Methyl-2-pentanone	ND	0.200	0.061	ND	0.820	0.249		1
trans-1,3-Dichloropropene	ND	0.200	0.069	ND	0.908	0.315		1
1,1,2-Trichloroethane	ND	0.200	0.067	ND	1.09	0.364		1
Toluene	ND	0.200	0.063	ND	0.754	0.237		1
1,3-Dichloropropane	ND	0.200	0.078	ND	0.924	0.359		1
2-Hexanone	ND	0.200	0.060	ND	0.820	0.248		1
Dibromochloromethane	ND	0.200	0.075	ND	1.70	0.636		1
1,2-Dibromoethane	ND	0.200	0.078	ND	1.54	0.599		1
Butyl acetate	ND	0.500	0.114	ND	2.38	0.542		1
Octane	ND	0.200	0.042	ND	0.934	0.197		1
Tetrachloroethene	ND	0.200	0.076	ND	1.36	0.514		1
1,1,1,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
Chlorobenzene	ND	0.200	0.079	ND	0.921	0.363		1
Ethylbenzene	ND	0.200	0.056	ND	0.869	0.241		1
p/m-Xylene	ND	0.400	0.139	ND	1.74	0.604		1
Bromoform	ND	0.200	0.052	ND	2.07	0.541		1
Styrene	ND	0.200	0.080	ND	0.852	0.340		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
o-Xylene	ND	0.200	0.063	ND	0.869	0.274		1
1,2,3-Trichloropropane	ND	0.200	0.077	ND	1.21	0.462		1
Nonane	ND	0.200	0.063	ND	1.05	0.328		1
Isopropylbenzene	ND	0.200	0.041	ND	0.983	0.202		1
Bromobenzene	ND	0.200	0.079	ND	0.793	0.313		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03 Date Collected: 02/25/14 16:26

Client ID: CAN 1604 SHELF 41 Date Received: 02/25/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	0.049	ND	1.04	0.252		1
n-Propylbenzene	ND	0.200	0.054	ND	0.983	0.265		1
4-Chlorotoluene	ND	0.200	0.076	ND	1.04	0.396		1
4-Ethyltoluene	ND	0.200	0.078	ND	0.983	0.381		1
1,3,5-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.287		1
tert-Butylbenzene	ND	0.200	0.031	ND	1.10	0.169		1
1,2,4-Trimethylbenzene	ND	0.200	0.069	ND	0.983	0.341		1
Decane	ND	0.200	0.048	ND	1.16	0.282		1
Benzyl chloride	ND	0.200	0.065	ND	1.04	0.334		1
1,3-Dichlorobenzene	ND	0.200	0.064	ND	1.20	0.383		1
1,4-Dichlorobenzene	ND	0.200	0.036	ND	1.20	0.217		1
sec-Butylbenzene	ND	0.200	0.073	ND	1.10	0.401		1
p-Isopropyltoluene	ND	0.200	0.061	ND	1.10	0.334		1
1,2-Dichlorobenzene	ND	0.200	0.061	ND	1.20	0.369		1
n-Butylbenzene	ND	0.200	0.064	ND	1.10	0.351		1
1,2-Dibromo-3-chloropropane	ND	0.200	0.074	ND	1.93	0.719		1
Undecane	ND	0.200	0.053	ND	1.28	0.338		1
Dodecane	ND	0.200	0.048	ND	1.39	0.333		1
1,2,4-Trichlorobenzene	ND	0.200	0.061	ND	1.48	0.454		1
Naphthalene	ND	0.200	0.043	ND	1.05	0.223		1
1,2,3-Trichlorobenzene	ND	0.200	0.044	ND	1.48	0.324		1
Hexachlorobutadiene	ND	0.200	0.073	ND	2.13	0.781		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:
Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404097

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/27/14 18:31
Analyst: RY

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	0.006	ND	0.247	0.030		1
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Freon-114	ND	0.050	0.005	ND	0.349	0.035		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,3-Butadiene	ND	0.020	0.006	ND	0.044	0.013		1
Bromomethane	ND	0.020	0.008	ND	0.078	0.031		1
Chloroethane	ND	0.020	0.007	ND	0.053	0.019		1
Acetone	ND	2.00	0.739	ND	4.75	1.76		1
Trichlorofluoromethane	ND	0.050	0.008	ND	0.281	0.045		1
Acrylonitrile	ND	0.500	0.015	ND	1.09	0.033		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
Freon-113	ND	0.050	0.006	ND	0.383	0.046		1
Halothane	ND	0.050	0.008	ND	0.404	0.065		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
1,1-Dichloroethane	ND	0.020	0.007	ND	0.081	0.028		1
Methyl tert butyl ether	ND	0.020	0.004	ND	0.072	0.014		1
2-Butanone	ND	0.500	0.025	ND	1.47	0.073		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,2-Dichloroethane	ND	0.020	0.008	ND	0.081	0.032		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Benzene	ND	0.100	0.021	ND	0.319	0.067		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
1,2-Dichloropropane	ND	0.020	0.006	ND	0.092	0.028		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	0.008	ND	0.134	0.054		1
1,4-Dioxane	ND	0.100	0.050	ND	0.360	0.180		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
cis-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
4-Methyl-2-pentanone	ND	0.500	0.042	ND	2.05	0.172		1
trans-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Toluene	ND	0.050	0.025	ND	0.188	0.094		1
Dibromochloromethane	ND	0.020	0.008	ND	0.170	0.068		1
1,2-Dibromoethane	ND	0.020	0.008	ND	0.154	0.062		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,1,2-Tetrachloroethane	ND	0.020	0.004	ND	0.137	0.028		1
Chlorobenzene	ND	0.020	0.008	ND	0.092	0.037		1
Ethylbenzene	ND	0.020	0.007	ND	0.087	0.030		1
p/m-Xylene	ND	0.040	0.009	ND	0.174	0.039		1
Bromoform	ND	0.020	0.015	ND	0.207	0.155		1
Styrene	ND	0.020	0.008	ND	0.085	0.034		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1
o-Xylene	ND	0.020	0.008	ND	0.087	0.035		1
Isopropylbenzene	ND	0.500	0.046	ND	2.46	0.226		1
4-Ethyltoluene	ND	0.020	0.010	ND	0.098	0.048		1
1,3,5-Trimethybenzene	ND	0.020	0.005	ND	0.098	0.025		1
1,2,4-Trimethylbenzene	ND	0.020	0.007	ND	0.098	0.034		1
1,3-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1
1,4-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.048		1
sec-Butylbenzene	ND	0.500	0.047	ND	2.74	0.258		1
p-Isopropyltoluene	ND	0.500	0.048	ND	2.74	0.263		1
1,2-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1404097
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404097-03
Client ID: CAN 1604 SHELF 41
Sample Location:

Date Collected: 02/25/14 16:26
Date Received: 02/25/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.500	0.045	ND	2.74	0.247		1
1,2,4-Trichlorobenzene	ND	0.050	0.010	ND	0.371	0.074		1
Naphthalene	ND	0.050	0.012	ND	0.262	0.063		1
1,2,3-Trichlorobenzene	ND	0.050	0.019	ND	0.371	0.141		1
Hexachlorobutadiene	ND	0.050	0.011	ND	0.533	0.117		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	94		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	92		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/27/14 17:27
Analyst: RY

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	0.063	ND	0.707	0.221		1
Propylene	ND	0.500	0.093	ND	0.861	0.160		1
Propane	ND	0.500	0.114	ND	0.902	0.206		1
Dichlorodifluoromethane	ND	0.200	0.047	ND	0.989	0.230		1
Chloromethane	ND	0.200	0.096	ND	0.413	0.198		1
Freon-114	ND	0.200	0.042	ND	1.40	0.293		1
Methanol	ND	5.00	0.736	ND	6.55	0.964		1
Vinyl chloride	ND	0.200	0.038	ND	0.511	0.097		1
1,3-Butadiene	ND	0.200	0.080	ND	0.442	0.177		1
Butane	ND	0.200	0.044	ND	0.475	0.105		1
Bromomethane	ND	0.200	0.070	ND	0.777	0.270		1
Chloroethane	ND	0.200	0.077	ND	0.528	0.202		1
Ethanol	ND	2.50	0.542	ND	4.71	1.02		1
Dichlorofluoromethane	ND	0.200	0.057	ND	0.842	0.241		1
Vinyl bromide	ND	0.200	0.070	ND	0.874	0.306		1
Acrolein	ND	0.500	0.114	ND	1.15	0.261		1
Acetone	ND	1.00	0.165	ND	2.38	0.392		1
Acetonitrile	ND	0.200	0.076	ND	0.336	0.128		1
Trichlorofluoromethane	ND	0.200	0.042	ND	1.12	0.234		1
Isopropanol	ND	0.500	0.053	ND	1.23	0.129		1
Acrylonitrile	ND	0.200	0.079	ND	0.434	0.171		1
Pentane	ND	0.200	0.048	ND	0.590	0.140		1
Ethyl ether	ND	0.200	0.059	ND	0.606	0.179		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.224		1
Tertiary butyl Alcohol	ND	0.500	0.060	ND	1.52	0.182		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	0.299	ND	3.47	1.04		1
3-Chloropropene	ND	0.200	0.081	ND	0.626	0.254		1
Carbon disulfide	ND	0.200	0.035	ND	0.623	0.107		1
Freon-113	ND	0.200	0.051	ND	1.53	0.392		1
trans-1,2-Dichloroethene	ND	0.200	0.074	ND	0.793	0.293		1
1,1-Dichloroethane	ND	0.200	0.077	ND	0.809	0.312		1
Methyl tert butyl ether	ND	0.200	0.053	ND	0.721	0.190		1
Vinyl acetate	ND	0.200	0.057	ND	0.704	0.200		1
2-Butanone	ND	0.200	0.047	ND	0.590	0.139		1
cis-1,2-Dichloroethene	ND	0.200	0.059	ND	0.793	0.233		1
Ethyl Acetate	ND	0.500	0.131	ND	1.80	0.472		1
Chloroform	ND	0.200	0.053	ND	0.977	0.259		1
Tetrahydrofuran	ND	0.200	0.061	ND	0.590	0.179		1
2,2-Dichloropropane	ND	0.200	0.058	ND	0.924	0.269		1
1,2-Dichloroethane	ND	0.200	0.055	ND	0.809	0.223		1
n-Hexane	ND	0.200	0.052	ND	0.705	0.183		1
Diisopropyl ether	ND	0.200	0.066	ND	0.836	0.274		1
tert-Butyl Ethyl Ether	ND	0.200	0.052	ND	0.836	0.215		1
1,1,1-Trichloroethane	ND	0.200	0.057	ND	1.09	0.311		1
1,1-Dichloropropene	ND	0.200	0.072	ND	0.908	0.325		1
Benzene	ND	0.200	0.054	ND	0.639	0.172		1
Carbon tetrachloride	ND	0.200	0.047	ND	1.26	0.296		1
Cyclohexane	ND	0.200	0.066	ND	0.688	0.226		1
tert-Amyl Methyl Ether	ND	0.200	0.080	ND	0.836	0.332		1
Dibromomethane	ND	0.200	0.048	ND	1.42	0.338		1
1,2-Dichloropropane	ND	0.200	0.070	ND	0.924	0.322		1
Bromodichloromethane	ND	0.200	0.066	ND	1.34	0.439		1
1,4-Dioxane	ND	0.200	0.078	ND	0.721	0.281		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	0.071	ND	1.07	0.382		1
2,2,4-Trimethylpentane	ND	0.200	0.066	ND	0.934	0.308		1
Methyl Methacrylate	ND	0.500	0.022	ND	2.05	0.091		1
Heptane	ND	0.200	0.055	ND	0.820	0.227		1
cis-1,3-Dichloropropene	ND	0.200	0.075	ND	0.908	0.338		1
4-Methyl-2-pentanone	ND	0.200	0.061	ND	0.820	0.249		1
trans-1,3-Dichloropropene	ND	0.200	0.069	ND	0.908	0.315		1
1,1,2-Trichloroethane	ND	0.200	0.067	ND	1.09	0.364		1
Toluene	ND	0.200	0.063	ND	0.754	0.237		1
1,3-Dichloropropane	ND	0.200	0.078	ND	0.924	0.359		1
2-Hexanone	ND	0.200	0.060	ND	0.820	0.248		1
Dibromochloromethane	ND	0.200	0.075	ND	1.70	0.636		1
1,2-Dibromoethane	ND	0.200	0.078	ND	1.54	0.599		1
Butyl acetate	ND	0.500	0.114	ND	2.38	0.542		1
Octane	ND	0.200	0.042	ND	0.934	0.197		1
Tetrachloroethene	ND	0.200	0.076	ND	1.36	0.514		1
1,1,1,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
Chlorobenzene	ND	0.200	0.079	ND	0.921	0.363		1
Ethylbenzene	ND	0.200	0.056	ND	0.869	0.241		1
p/m-Xylene	ND	0.400	0.139	ND	1.74	0.604		1
Bromoform	ND	0.200	0.052	ND	2.07	0.541		1
Styrene	ND	0.200	0.080	ND	0.852	0.340		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
o-Xylene	ND	0.200	0.063	ND	0.869	0.274		1
1,2,3-Trichloropropane	ND	0.200	0.077	ND	1.21	0.462		1
Nonane	ND	0.200	0.063	ND	1.05	0.328		1
Isopropylbenzene	ND	0.200	0.041	ND	0.983	0.202		1
Bromobenzene	ND	0.200	0.079	ND	0.793	0.313		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	0.049	ND	1.04	0.252		1
n-Propylbenzene	ND	0.200	0.054	ND	0.983	0.265		1
4-Chlorotoluene	ND	0.200	0.076	ND	1.04	0.396		1
4-Ethyltoluene	ND	0.200	0.078	ND	0.983	0.381		1
1,3,5-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.287		1
tert-Butylbenzene	ND	0.200	0.031	ND	1.10	0.169		1
1,2,4-Trimethylbenzene	ND	0.200	0.069	ND	0.983	0.341		1
Decane	ND	0.200	0.048	ND	1.16	0.282		1
Benzyl chloride	ND	0.200	0.065	ND	1.04	0.334		1
1,3-Dichlorobenzene	ND	0.200	0.064	ND	1.20	0.383		1
1,4-Dichlorobenzene	ND	0.200	0.036	ND	1.20	0.217		1
sec-Butylbenzene	ND	0.200	0.073	ND	1.10	0.401		1
p-Isopropyltoluene	ND	0.200	0.061	ND	1.10	0.334		1
1,2-Dichlorobenzene	ND	0.200	0.061	ND	1.20	0.369		1
n-Butylbenzene	ND	0.200	0.064	ND	1.10	0.351		1
1,2-Dibromo-3-chloropropane	ND	0.200	0.074	ND	1.93	0.719		1
Undecane	ND	0.200	0.053	ND	1.28	0.338		1
Dodecane	ND	0.200	0.048	ND	1.39	0.333		1
1,2,4-Trichlorobenzene	ND	0.200	0.061	ND	1.48	0.454		1
Naphthalene	ND	0.200	0.043	ND	1.05	0.223		1
1,2,3-Trichlorobenzene	ND	0.200	0.044	ND	1.48	0.324		1
Hexachlorobutadiene	ND	0.200	0.073	ND	2.13	0.781		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404160

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01 Date Collected: 02/26/14 12:16

Client ID: CAN 768 SHELF 42 Date Received: 02/26/14

Sample Location: Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	96		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404160

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/27/14 17:27
Analyst: RY

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	0.006	ND	0.247	0.030		1
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Freon-114	ND	0.050	0.005	ND	0.349	0.035		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,3-Butadiene	ND	0.020	0.006	ND	0.044	0.013		1
Bromomethane	ND	0.020	0.008	ND	0.078	0.031		1
Chloroethane	ND	0.020	0.007	ND	0.053	0.019		1
Acetone	ND	2.00	0.739	ND	4.75	1.76		1
Trichlorofluoromethane	ND	0.050	0.008	ND	0.281	0.045		1
Acrylonitrile	ND	0.500	0.015	ND	1.09	0.033		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
Freon-113	ND	0.050	0.006	ND	0.383	0.046		1
Halothane	ND	0.050	0.008	ND	0.404	0.065		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
1,1-Dichloroethane	ND	0.020	0.007	ND	0.081	0.028		1
Methyl tert butyl ether	ND	0.020	0.004	ND	0.072	0.014		1
2-Butanone	ND	0.500	0.025	ND	1.47	0.073		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,2-Dichloroethane	ND	0.020	0.008	ND	0.081	0.032		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Benzene	ND	0.100	0.021	ND	0.319	0.067		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
1,2-Dichloropropane	ND	0.020	0.006	ND	0.092	0.028		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	0.008	ND	0.134	0.054		1
1,4-Dioxane	ND	0.100	0.050	ND	0.360	0.180		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
cis-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
4-Methyl-2-pentanone	ND	0.500	0.042	ND	2.05	0.172		1
trans-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Toluene	ND	0.050	0.025	ND	0.188	0.094		1
Dibromochloromethane	ND	0.020	0.008	ND	0.170	0.068		1
1,2-Dibromoethane	ND	0.020	0.008	ND	0.154	0.062		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,1,2-Tetrachloroethane	ND	0.020	0.004	ND	0.137	0.028		1
Chlorobenzene	ND	0.020	0.008	ND	0.092	0.037		1
Ethylbenzene	ND	0.020	0.007	ND	0.087	0.030		1
p/m-Xylene	ND	0.040	0.009	ND	0.174	0.039		1
Bromoform	ND	0.020	0.015	ND	0.207	0.155		1
Styrene	ND	0.020	0.008	ND	0.085	0.034		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1
o-Xylene	ND	0.020	0.008	ND	0.087	0.035		1
Isopropylbenzene	ND	0.500	0.046	ND	2.46	0.226		1
4-Ethyltoluene	ND	0.020	0.010	ND	0.098	0.048		1
1,3,5-Trimethybenzene	ND	0.020	0.005	ND	0.098	0.025		1
1,2,4-Trimethylbenzene	ND	0.020	0.007	ND	0.098	0.034		1
1,3-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1
1,4-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.048		1
sec-Butylbenzene	ND	0.500	0.047	ND	2.74	0.258		1
p-Isopropyltoluene	ND	0.500	0.048	ND	2.74	0.263		1
1,2-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-01
Client ID: CAN 768 SHELF 42
Sample Location:

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.500	0.045	ND	2.74	0.247		1
1,2,4-Trichlorobenzene	ND	0.050	0.010	ND	0.371	0.074		1
Naphthalene	ND	0.050	0.012	ND	0.262	0.063		1
1,2,3-Trichlorobenzene	ND	0.050	0.019	ND	0.371	0.141		1
Hexachlorobutadiene	ND	0.050	0.011	ND	0.533	0.117		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	96		60-140
bromochloromethane	96		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 02/27/14 17:59
Analyst: RY

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	0.063	ND	0.707	0.221		1
Propylene	ND	0.500	0.093	ND	0.861	0.160		1
Propane	ND	0.500	0.114	ND	0.902	0.206		1
Dichlorodifluoromethane	ND	0.200	0.047	ND	0.989	0.230		1
Chloromethane	ND	0.200	0.096	ND	0.413	0.198		1
Freon-114	ND	0.200	0.042	ND	1.40	0.293		1
Methanol	ND	5.00	0.736	ND	6.55	0.964		1
Vinyl chloride	ND	0.200	0.038	ND	0.511	0.097		1
1,3-Butadiene	ND	0.200	0.080	ND	0.442	0.177		1
Butane	ND	0.200	0.044	ND	0.475	0.105		1
Bromomethane	ND	0.200	0.070	ND	0.777	0.270		1
Chloroethane	ND	0.200	0.077	ND	0.528	0.202		1
Ethanol	ND	2.50	0.542	ND	4.71	1.02		1
Dichlorofluoromethane	ND	0.200	0.057	ND	0.842	0.241		1
Vinyl bromide	ND	0.200	0.070	ND	0.874	0.306		1
Acrolein	ND	0.500	0.114	ND	1.15	0.261		1
Acetone	ND	1.00	0.165	ND	2.38	0.392		1
Acetonitrile	ND	0.200	0.076	ND	0.336	0.128		1
Trichlorofluoromethane	ND	0.200	0.042	ND	1.12	0.234		1
Isopropanol	ND	0.500	0.053	ND	1.23	0.129		1
Acrylonitrile	ND	0.200	0.079	ND	0.434	0.171		1
Pentane	ND	0.200	0.048	ND	0.590	0.140		1
Ethyl ether	ND	0.200	0.059	ND	0.606	0.179		1
1,1-Dichloroethene	ND	0.200	0.057	ND	0.793	0.224		1
Tertiary butyl Alcohol	ND	0.500	0.060	ND	1.52	0.182		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Methylene chloride	ND	1.00	0.299	ND	3.47	1.04		1
3-Chloropropene	ND	0.200	0.081	ND	0.626	0.254		1
Carbon disulfide	ND	0.200	0.035	ND	0.623	0.107		1
Freon-113	ND	0.200	0.051	ND	1.53	0.392		1
trans-1,2-Dichloroethene	ND	0.200	0.074	ND	0.793	0.293		1
1,1-Dichloroethane	ND	0.200	0.077	ND	0.809	0.312		1
Methyl tert butyl ether	ND	0.200	0.053	ND	0.721	0.190		1
Vinyl acetate	ND	0.200	0.057	ND	0.704	0.200		1
2-Butanone	ND	0.200	0.047	ND	0.590	0.139		1
cis-1,2-Dichloroethene	ND	0.200	0.059	ND	0.793	0.233		1
Ethyl Acetate	ND	0.500	0.131	ND	1.80	0.472		1
Chloroform	ND	0.200	0.053	ND	0.977	0.259		1
Tetrahydrofuran	ND	0.200	0.061	ND	0.590	0.179		1
2,2-Dichloropropane	ND	0.200	0.058	ND	0.924	0.269		1
1,2-Dichloroethane	ND	0.200	0.055	ND	0.809	0.223		1
n-Hexane	ND	0.200	0.052	ND	0.705	0.183		1
Diisopropyl ether	ND	0.200	0.066	ND	0.836	0.274		1
tert-Butyl Ethyl Ether	ND	0.200	0.052	ND	0.836	0.215		1
1,1,1-Trichloroethane	ND	0.200	0.057	ND	1.09	0.311		1
1,1-Dichloropropene	ND	0.200	0.072	ND	0.908	0.325		1
Benzene	ND	0.200	0.054	ND	0.639	0.172		1
Carbon tetrachloride	ND	0.200	0.047	ND	1.26	0.296		1
Cyclohexane	ND	0.200	0.066	ND	0.688	0.226		1
tert-Amyl Methyl Ether	ND	0.200	0.080	ND	0.836	0.332		1
Dibromomethane	ND	0.200	0.048	ND	1.42	0.338		1
1,2-Dichloropropane	ND	0.200	0.070	ND	0.924	0.322		1
Bromodichloromethane	ND	0.200	0.066	ND	1.34	0.439		1
1,4-Dioxane	ND	0.200	0.078	ND	0.721	0.281		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Trichloroethene	ND	0.200	0.071	ND	1.07	0.382		1
2,2,4-Trimethylpentane	ND	0.200	0.066	ND	0.934	0.308		1
Methyl Methacrylate	ND	0.500	0.022	ND	2.05	0.091		1
Heptane	ND	0.200	0.055	ND	0.820	0.227		1
cis-1,3-Dichloropropene	ND	0.200	0.075	ND	0.908	0.338		1
4-Methyl-2-pentanone	ND	0.200	0.061	ND	0.820	0.249		1
trans-1,3-Dichloropropene	ND	0.200	0.069	ND	0.908	0.315		1
1,1,2-Trichloroethane	ND	0.200	0.067	ND	1.09	0.364		1
Toluene	ND	0.200	0.063	ND	0.754	0.237		1
1,3-Dichloropropane	ND	0.200	0.078	ND	0.924	0.359		1
2-Hexanone	ND	0.200	0.060	ND	0.820	0.248		1
Dibromochloromethane	ND	0.200	0.075	ND	1.70	0.636		1
1,2-Dibromoethane	ND	0.200	0.078	ND	1.54	0.599		1
Butyl acetate	ND	0.500	0.114	ND	2.38	0.542		1
Octane	ND	0.200	0.042	ND	0.934	0.197		1
Tetrachloroethene	ND	0.200	0.076	ND	1.36	0.514		1
1,1,1,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
Chlorobenzene	ND	0.200	0.079	ND	0.921	0.363		1
Ethylbenzene	ND	0.200	0.056	ND	0.869	0.241		1
p/m-Xylene	ND	0.400	0.139	ND	1.74	0.604		1
Bromoform	ND	0.200	0.052	ND	2.07	0.541		1
Styrene	ND	0.200	0.080	ND	0.852	0.340		1
1,1,2,2-Tetrachloroethane	ND	0.200	0.055	ND	1.37	0.376		1
o-Xylene	ND	0.200	0.063	ND	0.869	0.274		1
1,2,3-Trichloropropane	ND	0.200	0.077	ND	1.21	0.462		1
Nonane	ND	0.200	0.063	ND	1.05	0.328		1
Isopropylbenzene	ND	0.200	0.041	ND	0.983	0.202		1
Bromobenzene	ND	0.200	0.079	ND	0.793	0.313		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
2-Chlorotoluene	ND	0.200	0.049	ND	1.04	0.252		1
n-Propylbenzene	ND	0.200	0.054	ND	0.983	0.265		1
4-Chlorotoluene	ND	0.200	0.076	ND	1.04	0.396		1
4-Ethyltoluene	ND	0.200	0.078	ND	0.983	0.381		1
1,3,5-Trimethylbenzene	ND	0.200	0.058	ND	0.983	0.287		1
tert-Butylbenzene	ND	0.200	0.031	ND	1.10	0.169		1
1,2,4-Trimethylbenzene	ND	0.200	0.069	ND	0.983	0.341		1
Decane	ND	0.200	0.048	ND	1.16	0.282		1
Benzyl chloride	ND	0.200	0.065	ND	1.04	0.334		1
1,3-Dichlorobenzene	ND	0.200	0.064	ND	1.20	0.383		1
1,4-Dichlorobenzene	ND	0.200	0.036	ND	1.20	0.217		1
sec-Butylbenzene	ND	0.200	0.073	ND	1.10	0.401		1
p-Isopropyltoluene	ND	0.200	0.061	ND	1.10	0.334		1
1,2-Dichlorobenzene	ND	0.200	0.061	ND	1.20	0.369		1
n-Butylbenzene	ND	0.200	0.064	ND	1.10	0.351		1
1,2-Dibromo-3-chloropropane	ND	0.200	0.074	ND	1.93	0.719		1
Undecane	ND	0.200	0.053	ND	1.28	0.338		1
Dodecane	ND	0.200	0.048	ND	1.39	0.333		1
1,2,4-Trichlorobenzene	ND	0.200	0.061	ND	1.48	0.454		1
Naphthalene	ND	0.200	0.043	ND	1.05	0.223		1
1,2,3-Trichlorobenzene	ND	0.200	0.044	ND	1.48	0.324		1
Hexachlorobutadiene	ND	0.200	0.073	ND	2.13	0.781		1

	Results	**Qualifier**	**Units**	**RDL**	**Dilution Factor**
Tentatively Identified Compounds					
No Tentatively Identified Compounds					

Project Name: BATCH CANISTER CERTIFICATION
Lab Number: L1404160
Project Number: CANISTER QC BAT
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	93		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1404160

Project Number: CANISTER QC BAT **Report Date:** 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 02/27/14 17:59
Analyst: RY

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.050	0.006	ND	0.247	0.030		1
Chloromethane	ND	0.500	0.048	ND	1.03	0.099		1
Freon-114	ND	0.050	0.005	ND	0.349	0.035		1
Vinyl chloride	ND	0.020	0.007	ND	0.051	0.018		1
1,3-Butadiene	ND	0.020	0.006	ND	0.044	0.013		1
Bromomethane	ND	0.020	0.008	ND	0.078	0.031		1
Chloroethane	ND	0.020	0.007	ND	0.053	0.019		1
Acetone	ND	2.00	0.739	ND	4.75	1.76		1
Trichlorofluoromethane	ND	0.050	0.008	ND	0.281	0.045		1
Acrylonitrile	ND	0.500	0.015	ND	1.09	0.033		1
1,1-Dichloroethene	ND	0.020	0.007	ND	0.079	0.028		1
Methylene chloride	ND	1.00	0.250	ND	3.47	0.869		1
Freon-113	ND	0.050	0.006	ND	0.383	0.046		1
Halothane	ND	0.050	0.008	ND	0.404	0.065		1
trans-1,2-Dichloroethene	ND	0.020	0.006	ND	0.079	0.024		1
1,1-Dichloroethane	ND	0.020	0.007	ND	0.081	0.028		1
Methyl tert butyl ether	ND	0.020	0.004	ND	0.072	0.014		1
2-Butanone	ND	0.500	0.025	ND	1.47	0.073		1
cis-1,2-Dichloroethene	ND	0.020	0.007	ND	0.079	0.026		1
Chloroform	ND	0.020	0.006	ND	0.098	0.029		1
1,2-Dichloroethane	ND	0.020	0.008	ND	0.081	0.032		1
1,1,1-Trichloroethane	ND	0.020	0.007	ND	0.109	0.038		1
Benzene	ND	0.100	0.021	ND	0.319	0.067		1
Carbon tetrachloride	ND	0.020	0.008	ND	0.126	0.050		1
1,2-Dichloropropane	ND	0.020	0.006	ND	0.092	0.028		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:
Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	0.008	ND	0.134	0.054		1
1,4-Dioxane	ND	0.100	0.050	ND	0.360	0.180		1
Trichloroethene	ND	0.020	0.007	ND	0.107	0.038		1
cis-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
4-Methyl-2-pentanone	ND	0.500	0.042	ND	2.05	0.172		1
trans-1,3-Dichloropropene	ND	0.020	0.008	ND	0.091	0.036		1
1,1,2-Trichloroethane	ND	0.020	0.009	ND	0.109	0.049		1
Toluene	ND	0.050	0.025	ND	0.188	0.094		1
Dibromochloromethane	ND	0.020	0.008	ND	0.170	0.068		1
1,2-Dibromoethane	ND	0.020	0.008	ND	0.154	0.062		1
Tetrachloroethene	ND	0.020	0.008	ND	0.136	0.054		1
1,1,1,2-Tetrachloroethane	ND	0.020	0.004	ND	0.137	0.028		1
Chlorobenzene	ND	0.020	0.008	ND	0.092	0.037		1
Ethylbenzene	ND	0.020	0.007	ND	0.087	0.030		1
p/m-Xylene	ND	0.040	0.009	ND	0.174	0.039		1
Bromoform	ND	0.020	0.015	ND	0.207	0.155		1
Styrene	ND	0.020	0.008	ND	0.085	0.034		1
1,1,2,2-Tetrachloroethane	ND	0.020	0.007	ND	0.137	0.048		1
o-Xylene	ND	0.020	0.008	ND	0.087	0.035		1
Isopropylbenzene	ND	0.500	0.046	ND	2.46	0.226		1
4-Ethyltoluene	ND	0.020	0.010	ND	0.098	0.048		1
1,3,5-Trimethybenzene	ND	0.020	0.005	ND	0.098	0.025		1
1,2,4-Trimethylbenzene	ND	0.020	0.007	ND	0.098	0.034		1
1,3-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1
1,4-Dichlorobenzene	ND	0.020	0.008	ND	0.120	0.048		1
sec-Butylbenzene	ND	0.500	0.047	ND	2.74	0.258		1
p-Isopropyltoluene	ND	0.500	0.048	ND	2.74	0.263		1
1,2-Dichlorobenzene	ND	0.020	0.007	ND	0.120	0.042		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1404160
Report Date: 03/25/14

Air Canister Certification Results

Lab ID: L1404160-02
Client ID: CAN 899 SHELF 43
Sample Location:

Date Collected: 02/26/14 12:16
Date Received: 02/26/14
Field Prep: Not Specified

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
n-Butylbenzene	ND	0.500	0.045	ND	2.74	0.247		1
1,2,4-Trichlorobenzene	ND	0.050	0.010	ND	0.371	0.074		1
Naphthalene	ND	0.050	0.012	ND	0.262	0.063		1
1,2,3-Trichlorobenzene	ND	0.050	0.019	ND	0.371	0.141		1
Hexachlorobutadiene	ND	0.050	0.011	ND	0.533	0.117		1

Internal Standard	**% Recovery**	**Qualifier**	**Acceptance Criteria**
1,4-difluorobenzene	93		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	91		60-140

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information **Custody Seal**
Cooler
N/A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405009-01A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-02A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-03A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-04A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-05A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-06A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-07A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-08A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-09A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-10A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-11A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-12A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-13A	Canister - 6 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1405009-14A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-15A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-16A	Canister - 6 Liter	N/A	N/A		Y	Absent	-
L1405009-17A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-18A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-19A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-20A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-21A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-22A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-23A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-24A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-25A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-26A	Canister - 6 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1405009-27A	Canister - 6 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name: SCOTIA NAVAL DEPOT
Project Number: 102305-R-07

Lab Number: L1405009
Report Date: 03/25/14

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1405009-28A	Canister - 6 Liter	N/A	N/A		Y	Absent	CLEAN-FEE()
L1405009-29A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)
L1405009-30A	Canister - 6 Liter	N/A	N/A		Y	Absent	TO15-SIM(30)

*Values in parentheses indicate holding time in days

Project Name:	SCOTIA NAVAL DEPOT	**Lab Number:**	L1405009
Project Number:	102305-R-07	**Report Date:**	03/25/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

1	- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The lower value for the two columns has been reported due to obvious interference.

Report Format: DU Report with 'J' Qualifiers

Project Name:	SCOTIA NAVAL DEPOT	**Lab Number:**	L1405009
Project Number:	102305-R-07	**Report Date:**	03/25/14

Data Qualifiers

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers

REFERENCES

48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

Last revised December 11, 2013

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.
EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.
EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.
EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 625: 4-Chloroaniline, 4-Methylphenol.
SM4500: Soil: Total Phosphorus, TKN, NO2, NO3.
EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility
EPA 8270D: Biphenyl.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

AIR ANALYSIS

ALPHA ANALYTICAL

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Stone Environmental Inc
Address: 535 Stone Cutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: jschmidt@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Navy Depot
Project Location: Scotia NY
Project #: 102305
Project Manager: Joe Schmidt
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	SV05-1-B	3/6/14	0838	1655	-30.23	-8.75	SV	DN	6L	1530	0103		X	X					1200, but questionable
	SV07-1-B	3/6/14	0928	1640	-29.52	-8.41	SV	DN	6L	0594	255		X	X					5.3ppm
	SV06-1-B	3/6/14	0856	1630	-30.6	-7.08	SV	DN	6L	1563	0150		X	X					0.9
	SV06-1-B-FD	3/6/14	0856	1630	-30.27	-7.36	SV	DN	6L	998	0314		X	X					0.9
	IA05-1-B	3/6/14	0839	1650	-30.05	-6.02	AA	DN	6L	1824	226		X	X					
	IA06-1-B	3/6/14	0905	1622	-30.12	-8.07	AA	DN	6L	0981	312		X	X					
	IA06-1-B-FD	3/6/14	0905	1622	-29.97	-6.09	AA	DN	6L	1517	024		X	X					
	IA07-1-B	3/6/14	0918	1638	-30.59	-6.03	AA	DN	6L	745	419		X	X					
	IAB6-1-B	3/5/14	0850	1722	-25.02	-10.27	AA	DN	6L	955	180		X	X					
	IA08-1-B	3/5/14	0920	1601	-28.79	-7.75	AA	DN	6L	1700	433		X	X					

SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature] Dan Voisin	3/7/14 1300		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Form No: 101-02 (18-Jun-09)

AIR ANALYSIS

PAGE 3 OF 3

CHAIN OF CUSTODY

ALPHA ANALYTICAL
320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Stone Environmental Inc.
Address: 535 Stonecutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: JSchmidl@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Naval Depot
Project Location: Scotia NY
Project #: 102805
Project Manager: Joe Schmidl
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS: TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	SVB6-2-B	3/6/14	0805	1543	-30.7	-6.67	AA	WJW	6L	1551	0020		X	X					
	SV13-1-B-Redo	3/6/14	1137	1705	-21.42	-13.18	SV	WJW	6L	1681	0155		X	X					
	SV12-1-B	3/6/14	0158	1650	-29.37	-9.85	SV	WJW	6L	646	0543		X	X					
	SV14-1-B-Redo	3/6/14	1200	1725	-29.95	-17.95	SV	WJW	6L	1764	0348		X	X					
	IA12-1-B	3/6/14	0928	1653	-29.42	-7.57	AA	WJW	6L	650	0424		X	X					
	~~SV14-1-B~~	~~3/6/14~~	~~0900~~	~~1640~~	~~-29.88~~	~~-7.66~~	~~SV~~	~~WJW~~	~~6L~~	~~1864~~	~~0413~~		F						Do Not Analyze
	~~SV13-1-B~~	~~3/5/14~~	~~0859~~	~~1600~~	~~-29.64~~	~~-4.50~~	~~SV~~	~~WJW~~	~~6L~~	~~1551~~	~~0647~~		~~X~~						Do not analyze
	SV15-1-B	3/5/14	0920	1653	-29.99	-3.02	SV	WJW	6L	1000	0102		X	X					0-8
	Trip Blank												X	X					
	IA14-1-B	3/5/14	08:55	16:36	-30.66	-7.49	AA	WJW	6L	1580	0639		X	X					
	IA15-1-B	3/5/14	09:20	16:52	-29.81	-7.56	AA	WJW	6L	1821	0624		X	X					

*SAMPLE MATRIX CODES
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Relinquished By:	Date/Time	Received By:	Date/Time:
Dan Voisin	3/7/14 1300		

AIR ANALYSIS

PAGE 3 OF 3

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Stone Environmental Inc
Address: 535 Stonecutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: jschmidl@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Naval Depot
Project Location: Scotia NY
Project #: 102305
Project Manager: Joe Schmidl
ALPHA Quote #:

Turn-Around Time

~~Standard~~ ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	ANALYSIS: TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
	✓IA09-1-B	3/5/14	~~0953~~	1643 DN 3/6/14	-30.25	-10.14	AA	DN	6L	986	6065		X	X					
	✓IA10-1-B	3/5/14	1006	1709	-29.69	-6.84	AA	DN	6L	1524	0277		X	X					
	~~✓SV10-1-B~~	~~3/5/14~~	1030	1702	-29.24	?	~~SV~~	~~DN~~	6L	1878	0455		X	DO NOT Analyze					Battery died 0.5 ppm
	✓SV09-1-B	3/5/14	0951	1640	-30	-5.56	SV	DN	6L	1784	6404		X	X					0.0 ppm
	~~✓SV08-1-B~~	~~3/5/14~~	0918	1549	-30	-6.29	SV	DN	6L	1530			Do not Analyze						58.6 ppm
	✓SV10-1-B-Redo	3/5/14	1018	1320	-30.19	-1.02	SV	DN	6L	1586	146		X	X					Short collection Can dropped quickly 0.9 ppm
	✓SV08-1-B-Redo	3/5/14	1119	1806	-30.02	-4.41	SV	DN	6L	1679	555		X	X					38.6
0	~~✓SV10-1-B Redo~~	~~3/6/14~~	~~1320~~	~~1320~~															
	✓SV11-1-B	3/6/14	0813	1212	-30.17	-5.22	SV	WJW	6L	735	0648		X	X					
0 WJW 3/6/14	✓IA11-1-B	3/6/14	0835	1600	-30.02	-7.15	AA	WJW	6L	1514	0272		X	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
Dan Volsin	5/7/14 1300		

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

AIR ANALYSIS

PAGE 1 OF 3

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/11/14

ALPHA Job #: L1405009

Client Information

Client: Stone Environmental Inc
Address: 535 Stone Cutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: jschmidl@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Nysl Depot
Project Location: Scotia NY
Project #: 102305
Project Manager: Joe Schmidl
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: _____

Report to: (if different than Project Manager) _____

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
5009 -01	SV05-1-B	3/6/14	0838	1655	-30.23	-8.75	SV	DN	6L	1530	0103		X	X					1200, but questionable
-02	SV07-1-B	3/6/14	0928	1640	-29.52	-8.41	SV	DN	6L	0594	255		X	X					5.3ppm
-03	SV06-1-B	3/6/14	0856	1630	-30.6	-7.08	SV	DN	6L	1563	0150		X	X					0.9
-04	SV06-1-B-FD	3/6/14	0856	1630	-30.27	-7.36	SV	DN	6L	998	0314		X	X					0.9
-05	IA05-1-B	3/6/14	0839	1650	-30.05	-6.02	AA	DN	6L	1824	226		X	X					
-06	IA06-1-B	3/6/14	0905	1622	-30.12	-8.07	AA	DN	6L	0981	312		X	X					
-07	IA06-1-B-FD	3/6/14	0905	1622	-29.97	-6.09	AA	DN	6L	1517	024		X	X					
-08	IA07-1-B	3/6/14	0918	1638	-30.59	-6.03	AA	DN	6L	745	419		X	X					
-09	IA86-1-B	3/5/14	0850	1722	-25.02	-10.27	AA	DN	6L	955	180		X	X					
-10	IA08-1-B	3/5/14	0920	1601	-28.79	-7.75	AA	DN	6L	1700	433		X	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Relinquished By:	Date/Time	Received By:	Date/Time:
	5/7/14 1300		3-11-14 0900

AIR ANALYSIS

PAGE 2 OF 3

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 3/4/14

ALPHA Job #: L1405009

Client Information

Client: Stone Environmental Inc
Address: 535 Stonecutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: jschmidl@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Naval Depot
Project Location: Scotia NY
Project #: 102305
Project Manager: Joe Schmidl
ALPHA Quote #:

Turn-Around Time

~~☒ Standard~~ ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker: _____
(Default based on Regulatory Criteria Indicated)
Other Formats: _____
☐ EMAIL (standard pdf report)
☐ Additional Deliverables: _____

Report to: (if different than Project Manager) _____

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
5009-11	IA09-1-B	3/5/14	~~0953~~ 0920	1643 DN 3/6/14	-30.25	-10.14	AA	DN	6L	986	6065		X	X					
-12	IA10-1-B	3/5/14	1006	1709	-29.69	-6.84	AA	DN	6L	1524	0277		X	X					
-13	~~SV10-1-B~~	3/5/14	1030	1702	-29.24	?	SV	DN	6L	1878	0455		X	DO NOT Analyze					Battery died 0.5 ppm
-14	SV09-1-B	3/5/14	0951	1640	-30	-5.56	SV	DN	6L	1784	0404		X	X					0.0 ppm
	~~SV08-1-B~~	3/5/14	0918	1549	-30	-6.29	SV	DN	6L	1878			Do not Analyze						58.6 ppm
-15	SV10-1-B-Redo	3/5/14	1018	1320	-30.19	-1.02	SV	DN	6L	1586	146		X	X					short collection Can dropped quickly 0.9 ppm
-16	SV08-1-B-Redo	3/5/14	1119	1806	-30.02	-11.41	SV	DN	6L	1679	555		X	X					38.6
	~~SV10-1-B-Redo~~	~~3/6/14~~	~~1320~~	~~1320~~															
-17	SV11-1-B	3/6/14	0913	1212	-30.17	-5.22	SV	WJW	6L	936	0648		X	X					
OWJW -18	IA11-1-B	3/6/14	0835	1600	-30.02	-7.15	AA	WJW	6L	1514	0212		X	X					

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
Dan Volsin	3/7/14 1300		3-4-14 0900

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

AIR ANALYSIS

PAGE 3 OF 3

CHAIN OF CUSTODY

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab:

ALPHA Job #:

Client Information

Client: Stone Environmental Inc.
Address: 535 Stonecutters Way
Montpelier VT 05602
Phone: 802 229 5377
Fax: 802 229 5417
Email: jschmidl@stone-env.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Scotia Naval Depot
Project Location: Scotia NY
Project #: 102805
Project Manager: Joe Schmidl
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH *(only confirmed if pre-approved!)*

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☐ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Criteria

Other Project Specific Requirements/Comments:

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-14A by TO-15	TO-15	TO-15 SIM	APH	FIXED GASES	TO-13A	TO-4 / TO-10	Sample Comments (i.e. PID)
50094 -19	SVB6-2-B	3/6/14	0805	1543	-30.7	-6.67	AA	WJW	6L	1451	0020		X	X					
-20	SV13-1-B-Redo	3/6/14	1137	1705	-29.42	-13.18	SV	WJW	6L	1651	0155		X	X					
-21	SV12-1-B	3/6/14	0158	1650	-29.37	-9.85	SV	WJW	6L	696	0578		X	X					
-22	SV14-1-B-Redo	3/6/14	1200	1725	-29.95	-17.95	SV	WJW	6L	1704	03456		X	X					
-23	IA12-1-B	3/6/14	0926	1653	-29.42	-7.57	AA	WJW	6L	650	0424		X	X					
	~~SV14-1-B~~	~~3/6/14~~	~~0900~~	~~1640~~	~~-29.88~~	~~-7.66~~	~~SV~~	~~WJW~~	~~6L~~	~~1864~~	~~0413~~		~~X~~						Do Not Analyze
	~~SV13-1-B~~	~~3/5/14~~	~~0859~~	~~1600~~	~~-29.64~~	~~-7.50~~	~~SV~~	~~WJW~~	~~6L~~	~~1551~~	~~0649~~		~~X~~						Do not analyze
-24	SV15-1-B	3/5/14	0920	1653	-29.99	-8.02	SV	WJW	6L	10000102			X	X					0-8
-25	Trip Blank												X	X					

*SAMPLE MATRIX CODES
AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS.

Relinquished By:	Date/Time	Received By:	Date/Time:
Dan Voisin	3/7/14 1300		

Field QC Assignments and Associated Samples

EDD File Name: L1405009
eQapp Name: ScotiaNavyDepot2

	Associated Samples	Sample Collection Date
Field QC Sample: IA06-1-B-FD **QC Type:** Field_Duplicate		
	IA06-1-B	3/6/2014 4:22:00 PM
Field QC Sample: SV06-1-B-FD **QC Type:** Field_Duplicate		
	SV06-1-B	3/6/2014 4:30:00 PM
Field QC Sample: TRIP-BLANK **QC Type:** Trip_Blank		
	IA12-1-B	3/6/2014 4:53:00 PM
	SV08-1-B-REDO	3/5/2014 6:06:00 PM
	IA09-1-B	3/5/2014 4:43:00 PM
	IA11-1-B	3/6/2014 4:00:00 PM
	SV05-1-B	3/6/2014 4:55:00 PM
	SV09-1-B	3/5/2014 4:40:00 PM
	IABG-2-B	3/6/2014 3:43:00 PM
	IA05-1-B	3/6/2014 4:50:00 PM
	IABG-1-B	3/6/2014 5:22:00 PM
	IA15-1-B	3/5/2014 4:52:00 PM
	SV07-1-B	3/6/2014 4:40:00 PM
	IA06-1-B-FD	3/6/2014 4:22:00 PM
	SV13-1-B-REDO	3/6/2014 5:05:00 PM
	SV10-1-B-REDO	3/5/2014 1:20:00 PM
	IA08-1-B	3/6/2014 4:01:00 PM
	SV12-1-B	3/6/2014 4:50:00 PM
	IA10-1-B	3/5/2014 5:09:00 PM
	IA07-1-B	3/6/2014 4:38:00 PM
	SV14-1-B-REDO	3/6/2014 5:25:00 PM
	IA06-1-B	3/6/2014 4:22:00 PM
	SV06-1-B-FD	3/6/2014 4:30:00 PM
	SV06-1-B	3/6/2014 4:30:00 PM
	SV11-1-B	3/6/2014 12:12:00 PM
	IA14-1-B	3/5/2014 4:36:00 PM
	SV15-1-B	3/5/2014 4:53:00 PM

Data Review Sample Summary Report by Analysis Method

Reviewed By: Kim B. Watson (3/27/2014) **Approved By:** **Laboratory: AAL**

Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Lab Reporting Batch: L1405009						
Method: TO-15SIM						
IA12-1-B	L1405009-23	AIR	N	Gen Prep	3/6/2014 4:53:00 PM	S2BVEM
SV08-1-B-REDO	L1405009-16	AIR	N	Gen Prep	3/5/2014 6:06:00 PM	S2BVEM
IA09-1-B	L1405009-11	AIR	N	Gen Prep	3/5/2014 4:43:00 PM	S2BVEM
IA11-1-B	L1405009-18	AIR	N	Gen Prep	3/6/2014 4:00:00 PM	S2BVEM
SV05-1-B	L1405009-01	AIR	N	Gen Prep	3/6/2014 4:55:00 PM	S2BVEM
SV09-1-B	L1405009-14	AIR	N	Gen Prep	3/5/2014 4:40:00 PM	S2BVEM
IABG-2-B	L1405009-19	AIR	N	Gen Prep	3/6/2014 3:43:00 PM	S2BVEM
IA05-1-B	L1405009-05	AIR	N	Gen Prep	3/6/2014 4:50:00 PM	S2BVEM
IABG-1-B	L1405009-09	AIR	N	Gen Prep	3/6/2014 5:22:00 PM	S2BVEM
IA15-1-B	L1405009-30	AIR	N	Gen Prep	3/5/2014 4:52:00 PM	S2BVEM
SV07-1-B	L1405009-02	AIR	N	Gen Prep	3/6/2014 4:40:00 PM	S2BVEM
IA06-1-B-FD	L1405009-07	AIR	Field_Duplicate	Gen Prep	3/6/2014 4:22:00 PM	S2BVEM
SV13-1-B-REDO	L1405009-20	AIR	N	Gen Prep	3/6/2014 5:05:00 PM	S2BVEM
SV10-1-B-REDO	L1405009-15	AIR	N	Gen Prep	3/5/2014 1:20:00 PM	S2BVEM
IA05-1-B-TO-15SIM-WG677158	WG677158-5	AIR	Duplicate	Gen Prep	3/6/2014 4:50:00 PM	S2BVEM
IA08-1-B	L1405009-10	AIR	N	Gen Prep	3/6/2014 4:01:00 PM	S2BVEM
SV12-1-B	L1405009-21	AIR	N	Gen Prep	3/6/2014 4:50:00 PM	S2BVEM
IA10-1-B	L1405009-12	AIR	N	Gen Prep	3/5/2014 5:09:00 PM	S2BVEM
TRIP-BLANK	L1405009-25	AIR	Trip_Blank	Gen Prep	3/11/2014 9:00:00 AM	S2BVEM
IA07-1-B	L1405009-08	AIR	N	Gen Prep	3/6/2014 4:38:00 PM	S2BVEM
SV14-1-B-REDO	L1405009-22	AIR	N	Gen Prep	3/6/2014 5:25:00 PM	S2BVEM
IA06-1-B	L1405009-06	AIR	N	Gen Prep	3/6/2014 4:22:00 PM	S2BVEM

Data Review Sample Summary Report by Analysis Method

Reviewed By: Kim B. Watson (3/27/2014) **Approved By:** **Laboratory: AAL**

Client Sample ID	Lab Sample ID	Matrix	Sample Type	Preparation Method	Collection Date	Validation Code
Method: TO-15SIM						
SV06-1-B-FD	L1405009-04	AIR	Field_Duplicate	Gen Prep	3/6/2014 4:30:00 PM	S2BVEM
SV06-1-B	L1405009-03	AIR	N	Gen Prep	3/6/2014 4:30:00 PM	S2BVEM
SV11-1-B	L1405009-17	AIR	N	Gen Prep	3/6/2014 12:12:00 PM	S2BVEM
IA14-1-B	L1405009-29	AIR	N	Gen Prep	3/5/2014 4:36:00 PM	S2BVEM
SV08-1-B-REDO-TO-15SIM-	WG677306-5	AIR	Duplicate	Gen Prep	3/5/2014 6:06:00 PM	S2BVEM
SV15-1-B	L1405009-24	AIR	N	Gen Prep	3/5/2014 4:53:00 PM	S2BVEM

Validation Label Legend

Label Code	Label Decription	EPA Level
S1VE	Stage_1_Validation_Electronic	N/A
S1VM	Stage_1_Validation_Manual	N/A
S1VEM	Stage_1_Validation_Electronic_and_Manual	N/A
S2AVE	Stage_2A_Validation_Electronic	Level 3 w/o calibration
S2AVM	Stage_2A_Validation_Manual	Level 3 w/o calibration
S2AVEM	Stage_2A_Validation_Electronic_and_Manual	Level 3 w/o calibration
S2BVE	Stage_2B_Validation_Electronic	Level 3 with
S2BVM	Stage_2B_Validation_Manual	Level 3 with
S2BVEM	Stage_2B_Validation_Electronic_and_Manual	Level 3 with
S3VE	Stage_3_Validation_Electronic	Level 4
S3VM	Stage_3_Validation_Manual	Level 4
S3VEM	Stage_3_Validation_Electronic_and_Manual	Level 4
S4VE	Stage_4_Validation_Electronic	Level 4
S4VM	Stage_4_Validation_Manual	Level 4
S4VEM	Stage_4_Validation_Electronic_and_Manual	Level 4

Data Review Sample Summary Report by Analysis Method

Reviewed By: Kim B. Watson (3/27/2014) **Approved By:** **Laboratory: AAL**

Client Sample ID	*Lab Sample ID*	*Matrix*	*Sample Type*	*Preparation Method*	*Collection Date*	*Validation Code*
NV	Not_Validated		N/A			

ATTACHMENT D

NEW YORK STATE DEPARTMENT OF HEALTH MATRIX COMPARISONS

Summary of New York State Department of Environmental Conservation Indoor Air / Soil Vapor Matrix Decisions
Defense National Stockpile Center Scotia Depot Site - 400 Buildings

BUILDING 201

LOCATION	NYSDOH Indoor	NYSDOH	NYSDEC Sub-Slab Vapor Concentration of Compound (µg/m³)				NYSDEC Indoor Air Concentration of Compound (µg/m³)				SV05-1-B	IA05-1-B		SV06-1-B	IA06-1-B		SVO6-1-B-FD	IA06-1-B-FD		SV07-1-B	IA07-1-B	
SAMPLING DATE	Air Guideline[2]	Matrix									6-Mar-14	6-Mar-14		6-Mar-14	6-Mar-14		6-Mar-14	6-Mar-14		6-Mar-14	6-Mar-14	
LAB SAMPLE ID											L1405009-01	L1405009-05	Matrix decision[1]	L1405009-03	L1405009-06	Matrix decision[2]	L1405009-04	L1405009-07	Matrix decision[1]	L1405009-02	L1405009-08	Matrix decision[1]
Volatile Organics in Air by SIM - (µg/m³)																						
1,1,1-Trichloroethane		2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	0.737	0.109 U	NFA	27.2	0.038 J	NFA	27.3	0.038 J	NFA	1.39	0.109 U	NFA
Carbon tetrachloride		1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	122	0.673	Monitor / Mitigate	10.1	0.692	Monitor	10.1	0.692	Monitor	1210	2.64	Mitigate
Tetrachloroethene	100	2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	0.542 J	0.136	NFA	3.4	0.068 J	NFA	3.44	0.068 J	NFA	0.868	0.258	RPA
Trichloroethene	5	1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	1.05	0.107 U	NFA	2.77	0.107 U	NFA	2.82	0.107 U	NFA	0.349	0.107 U	NFA

BUILDING 202

LOCATION	NYSDOH Indoor	NYSDOH	NYSDEC Sub-Slab Vapor Concentration of Compound (µg/m³)				NYSDEC Indoor Air Concentration of Compound (µg/m³)				SV08-1-B-REDO	IA08-1-B		SV09-1-B	IA09-1-B		SV10-1-B-REDO	IA10-1-B	
SAMPLING DATE	Air Guideline[2]	Matrix									5-Mar-14	6-Mar-14		5-Mar-14	5-Mar-14		5-Mar-14	5-Mar-14	
LAB SAMPLE ID											L1405009-16	L1405009-10	Matrix decision[1]	L1405009-14	L1405009-11	Matrix decision[2]	L1405009-15	L1405009-12	Matrix decision[1]
Volatile Organics in Air by SIM - (µg/m³)																			
1,1,1-Trichloroethane		2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	862	0.737	Monitor	72.6	0.196	NFA	45.7	0.18	NFA
Carbon tetrachloride		1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	3,270	2.65	Mitigate	68.6	0.692	Monitor / Mitigate	22.3	0.654	Monitor
Tetrachloroethene	100	2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	0.678	0.292	NFA	0.339	0.17	NFA	0.231	0.156	NFA
Trichloroethene	5	1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	0.699	0.752	RPA	0.333	0.683	RPA	132	0.623	Monitor / Mitigate

BUILDING 203

LOCATION	NYSDOH Indoor	NYSDOH	NYSDEC Sub-Slab Vapor Concentration of Compound (µg/m³)				NYSDEC Indoor Air Concentration of Compound (µg/m³)				SV11-1-B	IA11-1-B		SV12-1-A	IA12-1-B	
SAMPLING DATE	Air Guideline[2]	Matrix									6-Mar-14	6-Mar-14		6-Mar-14	6-Mar-14	
LAB SAMPLE ID											L1405009-17	L1405009-18	Matrix decision[1]	L1405009-21	L1405009-23	Matrix decision[1]
Volatile Organics in Air by SIM - (µg/m³)																
1,1,1-Trichloroethane		2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	96	0.469	NFA	103	0.147	Monitor
Carbon tetrachloride		1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	223	1.95	Mitigate	931	1.01	Mitigate
Tetrachloroethene	100	2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	5.85 U	0.142	NFA	0.271 U	0.061 J	NFA
Trichloroethene	5	1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	2.32 J	0.107 U	NFA	0.172 J	0.107 U	NFA

BUILDING 204

LOCATION	NYSDOH Indoor	NYSDOH	NYSDEC Sub-Slab Vapor Concentration of Compound (µg/m³)				NYSDEC Indoor Air Concentration of Compound (µg/m³)				SV13-1-B-REDO			SV14-1-B-REDO	IA14-1-B		SV15-1-B	IA15-1-B	
SAMPLING DATE	Air Guideline[2]	Matrix									6-Mar-14			6-Mar-14	5-Mar-14		5-Mar-14	5-Mar-14	
LAB SAMPLE ID											L1405009-20		Matrix decision[1]	L1405009-22	L1405009-29	Matrix decision[2]	L1405009-24	L1405009-30	Matrix decision[1]
Volatile Organics in Air by SIM - (µg/m³)																			
1,1,1-Trichloroethane		2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	8.07		≥NFA	2.35	0.038 J	NFA	0.109 U	0.044 J	NFA
Carbon tetrachloride		1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	937		Mitigate	1.99	0.516	RPA	0.744	0.572	RPA
Tetrachloroethene	100	2	<100	<100	100 to 1,000	>1,000	<3	3 to 30	30 to 100	>100	3.76		≥NFA	63.4	0.142	NFA	0.075 J	0.149	NFA
Trichloroethene	5	1	<5	5 to 50	50 to 250	>250	<0.25	0.25 to 1	1 to 5	>5	1,630		Mitigate	3.12	0.21	NFA	0.065 J	3.92	RPA

NFA - No further action.

RPA - Take reasonable and practical actions to identify source(s) and reduce exposures.

≥NFA - The lack of corresponding indoor air data indicate the best possible recommendation is no further action.

Note 1: NYDEC *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* , New York State Department of Health (NYSDoH) values included in Tables 3.1 and 3.3, and Matrices 1 and 2, dated October 20

All Mitigation recommendations are the result of carbon tetrachlroide impacts.