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September 4, 2015

Mr. Glenn May  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

**Subject:**     **Storm Sewer Soil Vapor Intrusion Evaluation**  
                 **Former Scott Aviation Facility Area 1 BCP Site**  
                 **NYSDEC Site Code No. C915233, Lancaster, New York**

Dear Mr. May,

Scott Figgie LLC has been assigned and has assumed certain environmental liabilities of Scott Technologies, Inc. On behalf of Scott Figgie LLC, AECOM Technical Services, Inc. (AECOM) is pleased to provide you with this letter-report summarizing the results of the recently completed storm sewer evaluation for the Former Scott Aviation Facility Area 1 BCP site (Site) in Lancaster, New York. This evaluation was suggested by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) during the October 23, 2014 stakeholder meeting at the NYSDEC Buffalo, New York office and per an NYSDEC email to AECOM dated March 17, 2015. In addition, specific details concerning the evaluation, including sample locations, were discussed during an NYSDEC Site visit on April 23, 2015. This work was conducted in accordance with AECOM's NYSDEC-approved Soil Vapor Intrusion and Storm Sewer Evaluation Work Plan (Work Plan) dated and submitted to NYSDEC on June 3, 2015. This letter-report discusses the project intent, describes the field methodology employed, and summarizes both field observations and analytical results. Data from this evaluation will be included in the Final Analysis of Alternatives Report (AAR) and used to finalize the Site Management Plan (SMP).

## I.     Background

This investigation was completed at and near the Site to determine if Site-related Constituents of Potential Concern (COPCs), as presented in the draft AAR dated April 30, 2013, have migrated through the storm sewer and/or storm sewer bedding and impacted the air quality of adjacent residences along the south side of Erie Street, west of the Site. The Site consists of shallow groundwater impacted with chlorinated volatile organic compounds (VOCs). A previous soil vapor intrusion (SVI) investigation took place in July 2013 to evaluate if Site COPCs were present in the soil vapor East of 205 Erie Street (refer to **Attachment 1** for the Soil Vapor Intrusion Evaluation dated August 28, 2013). In September 2013, a supplementary investigation was performed to evaluate potential VOCs in groundwater adjacent to the residences to the west of the Site (refer to **Attachment 2** for the Soil Vapor Intrusion Evaluation – Supplemental Soil and Groundwater Data Report dated October 4, 2013). The purpose of the recent investigation was to collect additional VOC data from both the storm sewer catch basins down gradient from the Site and from SVI points adjacent to the storm sewer, to determine whether soil vapor in the vicinity of the nearby residences at 205, 197, and 189 Erie Street contained chlorinated VOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue for the nearby buildings (houses and garages/shops).

It is important to note that on 04/10/15 AECOM project manager met with the Lancaster Department of Public Works engineer to discuss the storm sewer system in the vicinity of the Site. AECOM was informed that the storm sewer was recently re-surveyed (2013) and that residences (the four homes along Erie Street between Walter Winter Road and Court Street) are not connected to the storm sewer. Per interview with the Lancaster Department of Public Works engineer, these residences include 175 Court Street (discharges storm water directly to Plumb Bottom Creek), 189 and 197 Erie Street (use "bubbler" and discharge storm water to the ground surface), and 205 Erie Street (discharges to the on-site storm sewer system). This information was not known by AECOM prior to the SVI / storm sewer investigations as the Lancaster Public Works Department had not yet finalized the sewer system survey along Erie Street and adjacent areas. AECOM verified that the homeowners along Erie Street use dispersion devices for stormwater; bubbler pots were observed in front of the houses.

Approximately one month prior to sample collection, per the final Remedial Action Work Plan for the 2015 Interim Remedial Measure (2015 IRM) – Groundwater, a full scale groundwater remedial program to address VOCs in Site groundwater was completed using in-situ enhanced reductive dechlorination via direct-push injections of Anaerobic Biochem (ABC<sup>®</sup>) with zero valent iron (known as ABC+<sup>®</sup>). Post-injection groundwater samples from monitoring wells were collected in late July 2015 and, per preliminary data, a reduction of chlorinated VOCs was noted. These data will be reported in the final AAR and used to finalize the SMP.

## II. Field Activities

The scope of work described in the approved Work Plan for the storm sewer evaluation included two tasks: Task 1 - to conduct SVI sampling adjacent to the storm sewer at and down-gradient from the Site, and in front of three residential properties located east of Site; and Task 2 - to collect aqueous grab samples for VOC analysis from the storm sewer system.

### ***Task 1 – Soil Vapor Intrusion Sampling***

On June 25, 2015 AECOM installed six temporary SVI probes; five probes as proposed in the approved Work Plan, plus one backup location for SVI-SS4 based upon possible moisture issues at that location. On the next day (June 26, 2015), leak detection measurements and sampling activities were performed. As proposed in the Work Plan, samples were attempted at the six installed temporary SVI probes and one ambient air location. A duplicate sample was collected at the ambient air location, bringing total attempted samples to eight. Sample locations are depicted on **Figure 1** and are briefly summarized in the following table:

Sample ID	Location
SVI-SS1	Adjacent to catch basin CB-1; in-line with existing storm sewer bedding.
SVI-SS2	Adjacent to storm sewer manhole MH-1, downgradient of CB-1.
SVI-SS3	205 Erie Street; located between sidewalk and street.
SVI-SS4	197 Erie Street; located between sidewalk and street.
SVI-SS4b	10 feet East of SVI-SS4.

Sample ID	Location
SVI-SS5	189 Erie Street; located between sidewalk and street.
AAS-1	Southwest of Plant 1 visitor parking lot; upwind of SVI points
Duplicate (AAS-1)	Southwest of Plant 1 visitor parking lot; upwind of SVI points

*Soil Vapor Sampling Methodology*

NYSDOH final "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006), herein referred to as the DOH Guidance, outlines the suggested methodology that was followed during the vapor intrusion study and provided an interpretive framework for the resulting analytical vapor data.

On June 25, 2015, temporary SVI probes were installed by Matrix Environmental Technologies, Inc., with AECOM oversight, using direct-push techniques, to create two-inch diameter boreholes to an approximate depth of four feet below grade. Once the desired depth was reached, the drive rod was retracted, and the soil core was characterized and inspected for signs of groundwater. SVI boring logs are included in **Attachment 3**. After the boreholes were determined to be dry, the SVI probes were installed. Each probe consisted of a quarter-inch outer diameter Teflon tube which was installed to the bottom of the two-inch diameter borehole. The annulus was backfilled with approximately one foot of clean coarse sand, followed by one foot of granular bentonite that was wetted to seal the sand from the overlying grout, then a cement-bentonite slurry seal extending to ground surface and beyond the helium shroud used for tracer gas application. Each probe was allowed to equilibrate over a 24-hour period so that the cement-bentonite mixture could cure. The top of each probe was covered with a clean five-gallon bucket and orange safety cone to protect the SVI probe overnight.

On June 26, 2015, prior to sample collection, AECOM tested the seals around the injection probes by injecting helium tracer gas into each helium shroud using application methods described in the DOH Guidance (Section 2.7.5). Prior to AECOM collecting soil vapor samples, the temporary SVI probes were purged of approximately three implant volumes (i.e., volume of the sample tube and sand pack). A Dielectric Technologies Model MGD-2002 Multi-Gas Leak Locator and SKC sample pump were used to purge the three implant volumes while simultaneously screening helium concentrations in purged vapor; the purge flow rate did not exceed 0.2 liters per minute. Once the seal was determined to be satisfactory, a MultiRae Model PGM-7240 photoionization detector (PID) was used to screen both the soil vapor and the ambient outdoor air for VOCs.

Each sample collection was attempted using a three-liter, stainless steel, SUMMA-type canister, equipped with a two-hour regulator. SVI and ambient air samples were collected concurrently; one field duplicate was collected at the ambient air location for quality assurance purposes. The field geologist recorded on a field log sheet the sample identification, canister and regulator identification, date and time of sample collection, sampling depth and moisture content of the sampling zone, and the sampling method and device. In addition, the purge volume, sample volume, canister vacuum pre- and post-sampling, and sampler name were recorded. The SVI sample log sheet is included in **Attachment 4**. Any other pertinent field observations (i.e., odors or readings from field instrumentation) were also noted on the log sheet. The daily weather logs are included in **Attachment 5**. After samples were collected, the SVI probes were removed and the boreholes were backfilled with topsoil and/or bentonite chips to restore the sample locations to their original condition. During this activity, photographs were taken; refer to **Attachment 6** for photograph log.

Soil vapor samples were packaged and hand delivered to TestAmerica Laboratories in Amherst, New York under standard chain-of-custody procedures. All samples were analyzed for VOCs using EPA Method TO-15. A Category B deliverable package was requested for the soil vapor data that included the following elements: analytical report; quality assurance/quality control summary; chain of custody; method blank; laboratory control samples – control limits; reporting limits; and surrogate recoveries for gas chromatograph/mass spectrometer analysis, with control limits.

#### *Soil Vapor Field Observations*

No petroleum or chemical odors were noted in soils recovered during the installation of the soil borings. All PID readings were at or below background VOC levels during the screening of soils. In general, shallow soils consisted of approximately three to 12 inches of topsoil (SVI points were located in lawn areas) above reddish-brown, mottled clay to a depth of approximately four feet below grade (refer to **Attachment 3** for SVI boring logs). Soils were compact and dry to moist throughout the sample core at all locations except for SVI-SS4, which had a moist to wet sand layer from approximately two to three feet below ground surface. As a precaution in case SVI-SS4 filled with water, a backup location, approximately 10 feet to the east, was installed and labeled SVI-SS4b; the sand layer was not observed at this location.

During the pump test portion of leak detection activities, the pump shut off for SVI-SS2, SVI-SS3, SVI-SS4b, and SVI-SS5 and a complete leak test was unable to be completed due to failure to fill the Tedlar bag; however, direct in-line testing of the pump using helium was attempted. For all SVI locations no detection of helium was noted, thus meeting DOH Guidance requirements (Section 2.7.5). Seven of eight attempted samples were collected successfully; sample collection failed at location SVI-SS4b. A summary of observations and sampling parameters at each sample location are provided in **Attachment 4**.

During sample collection at location SVI-SS4b (backup of SVI-SS4), the negative pressure of the SUMMA canister as recorded on the regulator did not change after more than two hours of attempted sample collection. SVI-SS4b was not run by the lab, and a second attempt with a new canister and regulator was not attempted as this was a backup, and the primary sample SSI-SV4 ran without issues and without pulling water into the SUMMA canister.

#### ***Task 2 – Storm Sewer and Outfall Sampling***

On June 12, 2015, aqueous grab samples were collected by AECOM, with NYSDEC oversight, from four locations along the storm sewer system; one immediately down-gradient of the Site prior to stormwater entering the main trunk line on Erie Street at MH-1, one up-gradient of the Site at the catch basin (CB-5) located at the intersection of Erie Street and Walter Winter Drive, one at the storm sewer system outfall at Plum Bottom Creek (OF-1), and one from the storm sewer pipe bedding at temporary piezometer TP-6 located near MH-1. The aqueous sampling results are used to evaluate the performance of both the 2014 and 2015 interim remedial measures. The 2014 interim remedial measure included sealing storm sewer pipe joints and installation of impermeable plugs within the storm sewer pipe bedding to prevent down-gradient migration of groundwater within the footprint of the 20 micrograms per liter ( $\mu\text{g}/\text{L}$ ) total VOC groundwater plume, and the 2015 interim remedial measure included targeted injections of ABC+® into the storm sewer pipe bedding. Sample locations are depicted on **Figure 2** and are briefly summarized in the following table:

Sample ID	Location
TP-6	Temporary piezometer in storm sewer pipe bedding at MH-1.
MH-1	On-Site manhole downgradient of CB-1.
OF-1	Storm sewer outfall at Plum Bottom Creek.
CB-5	Most up-gradient storm sewer system catch basin.
Duplicate	Duplicate sample collected at CB-5.

#### *Storm Sewer Sampling Methodology*

Stormwater samples were collected at TP-6 and MH-1 using a peristaltic pump. Samples OF-1 and CB-5 were collected by direct filling the sample bottles (i.e., grab samples). A rinse blank, trip blank, and duplicate sample were collected for quality assurance/quality control. Aqueous samples were analyzed by TestAmerica Laboratories, Inc. for VOCs using EPA Method 8260B, with a Category B data report.

#### *Storm Sewer and Outfall Sampling Field Observations*

Minimal flow was observed in the storm sewer catch basins and at the manhole. The low flow rates observed in the catch basins and manholes suggest that groundwater infiltration into the stormwater piping has been greatly reduced as a result of the September 2104 Final Remedial Action Work Plan for the 2014 Interim Remedial Measures (2014 IRM); i.e., sealing storm sewer joints.

### **III. Analytical Results**

As presented in the revised Supplemental Remedial Investigation Report dated April 30, 2012, observed impacts in the groundwater at the Site appear to mainly exist as VOCs. Storm sewer catch basins and groundwater within the associated pipe bedding were likely influenced by groundwater prior to the 2014 IRM, as the overburden groundwater elevation is high in that area of the Site.

As stated above, a full scale groundwater remedial program to address VOCs in Site groundwater was completed in May 2015. Post-injection groundwater samples from monitoring wells were collected in late July 2015 and, per preliminary data, a reduction of chlorinated VOCs was noted. These data will be reported in the final AAR and used to finalize the SMP.

#### ***Task 1 – Soil Vapor Sampling Results***

Based on the analytical results from this 2015 SVI evaluation (refer to **Table 1**), a total of 14 out of 20 COPCs, as established in the draft AAR, were detected at concentrations ranging from 1.6 to 270 micrograms per meter cubed ( $\mu\text{g}/\text{m}^3$ ).

From an SVI standpoint, trichloroethene (TCE) and 1,1,1-trichloroethane (1,1,1-TCA) are the compounds that warrant further discussion. The NYSDOH has published an Air Guideline Value

(AGV) for TCE; however, the value was published specifically for indoor air rather than soil vapor samples. The AGV for TCE is 5 µg/m<sup>3</sup> as compared to reported concentrations of 8.2 µg/m<sup>3</sup> in SVI-SS1 and 7.0 µg/m<sup>3</sup> in SVI-SS2. 1,1,1-TCA does not have a published AGV, but is listed as a chemical for evaluation using the Decision Matrices provided in the DOH Guidance. 1,1,1-TCA was detected in four SVI locations (SVI-SS1, SVI-SS2, SVI-SS4, and SVI-SS5), at concentrations of 110, 87, 10, and 11 µg/m<sup>3</sup>, respectively. There are no current state-enforceable standards, criteria or guidelines for concentrations of VOCs in soil vapor.

Analytical data identified the apparent presence of 16 other non-COPC VOCs at the SVI sample locations, with concentrations ranging from 1.4 to 180 µg/m<sup>3</sup>.

The ambient outdoor air samples exhibited trace levels of two VOCs (chloromethane at 1.1 µg/m<sup>3</sup> and methyl ethyl ketone at 1.5 µg/m<sup>3</sup>). The analytical results from the field duplicate corroborated the concentrations identified in the parent sample (AAS-1), with only a few detected compounds. The duplicate was non-detect for chloromethane and had low level detections of acetone at 18 µg/m<sup>3</sup> and carbon disulfide at 4.8 µg/m<sup>3</sup> that were not found in the AAS-1 sample.

The laboratory summary sheets for the SVI investigation are included as **Attachment 7**. The full analytical report (Category B deliverable package) with QA/QC data is available upon request.

### ***Task 2 – Storm Sewer Sampling Results***

Fourteen compounds were reported in at least one of the four aqueous storm sewer samples above their detection limits (refer to **Table 2**). Six of these were detected in concentrations greater than the NYSDEC Division of Water TOGS 1.1.1 groundwater standard/guidance value. The six compounds that had an exceedance were as follows:

- 1,1,1-TCA with a value of 27 µg/m<sup>3</sup> (standard = 5 µg/m<sup>3</sup>);
- 1,1,2-trichloro-1,2,2,-trifluoroethane with a value of 19 µg/m<sup>3</sup> (standard = 5 µg/m<sup>3</sup>);
- 1,1-dichlorethane with a value of 18 µg/m<sup>3</sup> (standard = 5 µg/m<sup>3</sup>);
- acetone with a value of 340 µg/m<sup>3</sup> (guidance value = 50 µg/m<sup>3</sup>);
- cis-1,2-dichloroethene with a value of 44 µg/m<sup>3</sup> (standard = 5 µg/m<sup>3</sup>), and
- total xylenes with a value of 7.4 µg/m<sup>3</sup> (standard = 5 µg/m<sup>3</sup>).

All of the exceedances occurred in the MH-1 sample, which receives all of the stormwater generated on the west side of the Site. Impacts to upstream catch basins (e.g. CB-1) were previously documented (**Table 2**). The total chlorinated VOC content at MH-1 is 503 µg/L, which is lower than the previous sampling events at upgradient catch basin CB-1 on June 1, 2011, June 16, 2011, October 7, 2011. Total VOC concentrations were 1,192 µg/L, 835 µg/L, and 560 µg/L, respectively. These results demonstrate that the 2014 and 2015 IRMs were effective in reducing VOC infiltration to the on-site storm sewer.

Piezometer TP-6, located in the utility bedding near manhole MH-1 and upgradient of the homes at 175, 189, 197, and 205 Erie Street, did not exhibit any VOC exceedances. Site IRMs have been targeted toward improving water quality within the storm sewer system, and concentrations are expected to continue to improve as the chemical treatment takes effect and the system is flushed out. Refer to **Table 2** for data from TP-5 and TP-6, immediately following the 2015 IRM and approximately 3 months following the 2015 IRM.

All detected compounds in the other storm sewer and bedding gravel samples were less than the groundwater standard/guidance values.

**Table 2** contains all of the detected compounds from the June 12, 2015 storm sewer sampling event compared to historical analytical results. The June 2015 results document decreases in concentrations compared to historical data, indicating that the 2014 and 2015 IRMs have been effective in reducing VOC concentrations in the on-site storm sewer and associated bedding. -

Laboratory summary sheets for the aqueous storm sewer sampling are included as **Attachment 8**. The full analytical report (Category B deliverable package) with QA/QC data is available upon request.

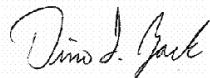
#### IV. Conclusions

In June 2015, samples were collected to assess soil vapor and storm sewer quality along Erie Street. Based upon the information collected, AECOM provides the following conclusions:

- Five soil vapor samples were collected along the storm sewer bedding adjacent to the storm sewer in front of the residences at 205, 197, and 189 Erie Street. TCE was reported at low concentrations (7 and 8.2 µg/m<sup>3</sup>) along the Site storm sewer, and was absent in the samples collected directly in front of the three residences west of the Site. 1,1,1-TCA was detected in on-site location SVI-SS1 at 110 µg/m<sup>3</sup>, while 1,1,1-TCA concentrations along the street in front of those residences ranged from non-detect to 11 µg/m<sup>3</sup>. These results, along with new information that the residences are not connected to the storm sewer, indicate that no further SVI assessment is warranted.
- Four aqueous grab samples were collected along the storm sewer system on-site and along Erie Street. Sample MH-1 at the northwest corner of the Site was the only sample that contained some VOCs at concentrations above their applicable standards. However, when compared to the upgradient data at catch basin CB-1, MH-1 shows a decreasing trend of total VOCs. Site-related compounds were present at concentrations lower than historically reported in site storm water. Location TP-6, a piezometer in the utility bedding between MH-1 and historically impacted catch basin CB-1, did not exhibit any exceedances of standards. It is expected that the 2015 IRM, completed in May 2015, will continue to break down the chlorinated VOCs within the storm sewer bedding over time. Additional sample collection and analysis of the storm sewer system to document the continued break down of chlorinated VOCs will be included in the final SMP.

If you have any questions regarding this submission, please do not hesitate to contact me at (716) 923-1125 or via email.

Yours sincerely,



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## **Figures**





**LEGEND**

- TP-4 ● TEMPORARY PIEZOMETER LOCATION
- CB-E ■ CATCH BASIN
- OF-1 ● OUTFALL
- MH-1 ■ MANHOLE
- ← STORM SEWER AND FLOW DIRECTION
- ESTIMATED STORM SEWER LOCATION

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**FIGURE 2**  
**STORM SEWER SAMPLE LOCATION**

FORMER SCOTT AVIATION FACILITY BCP SITE  
LANCASTER, NEW YORK

## **Tables**

**Table 1**  
**Air TO-15 Results**  
**Former Scott Aviation Facility - NYSDEC BCP Site No. C915233**  
**Lancaster, New York**

Type of Sample	AMBIENT	AMBIENT	SOIL VAPOR				
Sample ID	AAS-1	Duplicate (AAS-1)	SVI-SS1	SVI-SS2	SVI-SS3	SVI-SS4	SVI-SS5
Laboratory ID	200-28653-2	200-28653-3	200-28653-1	200-28653-4	200-28653-5	200-28653-6	200-28653-8
Sampling Date	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015	6/26/2015
2015 Sampling Event							
<b>BTEX Compounds (<math>\mu\text{g}/\text{m}^3</math>)</b>							
Benzene	0.64	U	0.64	U	1.6	7.8	10
Toluene	0.75	U	0.75	U	14	110	91
Ethylbenzene	0.87	U	0.87	U	4.8	52	36
Xylene (total)	0.87	U	0.87	U	27	210	160
<b>Other VOCs (<math>\mu\text{g}/\text{m}^3</math>)</b>							
1,1,1-Trichloroethane	1.1	U	1.1	U	110	87	3.9
1,1-Dichloroethane	0.81	U	0.81	U	21	4.9	2.9
1,1-Dichloroethene	0.79	U	0.79	U	2.5	2.8	U
1,2,4-Trimethylbenzene	0.98	U	0.98	U	10	12	13
1,2-Dichloroethene, Total	0.79	U	0.79	U	7.1	2.8	U
1,3,5-Trimethylbenzene	0.98	U	0.98	U	2.8	5.6	6.7
1,3-Butadiene	0.44	U	0.44	U	0.44	U	1.6
2,2,4-Trimethylpentane	0.93	U	0.93	U	0.93	U	3.6
4-Ethyltoluene	0.98	U	0.98	U	3	5.6	6.9
Acetone	12	U	18		60	200	230
Bromodichloromethane	1.3	U	1.3	U	3.1	20	36
Carbon disulfide	1.6	U	4.8		62	180	120
Chloroform	0.98	U	0.98	U	45	130	170
Chloromethane	1.1		1.0	U	1.0	U	3.6
cis-1,2-Dichloroethene	0.79	U	0.79	U	7.2	2.8	U
Cyclohexane	0.69	U	0.69	U	0.69	U	2.4
Freon TF	1.5	U	1.5	U	140	110	5.5
m,p-Xylene	2.2	U	2.2	U	20	170	120
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	U	2.0	U	7.2
Methyl Ethyl Ketone	1.5		3.2		3.1	10	21
n-Heptane	0.82	U	0.82	U	1.5	10	11
n-Hexane	0.70	U	0.70	U	2.5	10	10
Tetrahydrofuran	15	U	15	U	15	U	52
Trichloroethene	1.1	U	1.1	U	8.2	7	3.8
Trichlorofluoromethane	1.1	U	1.1	U	1.4	3.9	U
Xylene, o-	0.87	U	0.87	U	6.9	49	39

**Notes:**

All units in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )

Sample "Duplicate" is a duplicate sample of "Ambient".

**Bold** - Compound detected in a concentration greater than the method detection limits.

U - The compound was analyzed for, but was not detected above the method detection limit.

Yellow shaded cells indicate compounds that represent the primary site contaminants of concern (COC).

Table 2  
 Groundwater VOC Results in Temporary Piezometers and Catch Basins  
 Former Scott Aviation Facility Area 1 (BCP Site #C915233)  
 Lancaster, New York

Sample Designation Laboratory Identification Date Sampled	CAS Number	NYSDEC Groundwater Guidance or Standard Value <sup>1</sup>	CB-1-06/01/2011	CB-1-06/16/2011	CB-1-10/07/2011	MH-1-061215	OF-1-10/07/2011	OF-1-061015	TP-5-06/01/2011	TP-05-072815	TP-6-06122015	TP-06-072815	CB-5-061015
			480-5581-1	480-6205-1	480-10892-1	480-82175-2	480-10892-3	480-82175-1	480-5581-1	480-84681-6	480-82175-4	480-84681-7	480-82175-3
			6/1/2011	6/16/2011	10/7/2011	6/12/2015	10/7/2011	6/10/2015	6/1/2011	7/28/2015	6/12/2015	7/28/2015	6/10/2015
<b>BTEX Compounds (ug/L)</b>													
Toluene	100-41-4	5 s	1.9	0.51 U	1 U	3.2	1 U	1.0 U	0.51 U	4.4	1.0 U	1.0 U	1.0 U
Xylenes (total)	1330-20-7	5 s	1 J	0.66 U	1 U	7.4	1 U	2.0 U	0.66 U	4.3	2.0 U	2.0 U	2.0 U
<b>Other VOCs (ug/L)</b>													
1,1,1-Trichloroethane	71-55-6	5 s	420	120	170	27	1.2	1.5	83	2.5	1.8	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5 s	400 J	220	260	19	1.5	1.8	60 J	23	0.31 J	1.0 U	1.0 U
1,1,2-Trichloroethane	79-00-5	1 s	1.6	0.87 J	1.4		1 U	1.0 U	0.23 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	75-34-3	5 s	53	18	26	18	1 U	1	12	29	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	75-35-4	5 s	41	14	28	3.7	1 U	0.3 J	7.2	1.1	1.0 U	1.0 U	1.0 U
2-Butanone	78-93-3	50 g	1.3 U	1.3 U	10 U	36	10 U	4.5 J	1.3 U	22	10.0 U	10 U	1.0 U
Acetone	67-64-1	50 g	61	390 J	1 U	340	1 U	27	3 U	28	1.0 U	10 U	6.6 J
Bromodichloromethane	75-27-4	50 g	0.39 U	0.39 U	1 U	1.0 U	5.9	2.3	0.39 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	75-15-0	60 g	0.19 U	0.19 U	1 U	0.46 J	1 U	1.0 U	0.19 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	75-00-3	5 s	2.8	0.6 J	1 U	1.0 U	1 U	1.0 U	0.32 U	2.3	1.0 U	1.0 U	1.0 U
Chloroform	67-66-3	7 s	0.34 U	0.34 U	1 U	0.55 J	13	3.4	0.34 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	156-59-2	5 s	140	51	52	44	1 U	2.6	23	17	3.1	2.8	1.0 U
Dichlorodifluoromethane	75-71-8	5 s	0.68 U	0.68 U	1 U	1.0 U	1 U	1	0.68 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylcyclohexane	108-87-2	NL	0.16 U	0.16 U	1 U	0.41 J	1 U	1.0 U	0.16 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	127-18-4	5 s	0.5 J	0.36 U	0.73 J	1.0 U	1 U	1.0 U	0.36 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	156-60-5	5 s	1.8	1.5	1 U	1.0 U	1 U	1.0 U	0.9 U	1.2	1.0 U	1.0 U	1.0 U
Trichloroethene	79-01-6	5 s	59	18	22	1.5	1 U	0.52 J	8.8	1.9	0.49 J	0.83 J	1.0 U
Vinyl chloride	75-01-4	2 s	8.4	1.4	1 U	1.6	1 U	1.0 U	1.6	9.9	1.0 U	1.0 U	1.0 U
Total VOCs (ug/L) <sup>2</sup>	NA	NL	1,192.0	835.4	560.1	502.8	24.2	45.9	195.6	147.08	5.7	3.6	6.6

**Notes:**

1. Guidance or Standard Values - NYSDEC, Division of Water, TOGS (1.1.1) [NYSDEC, 1998, with addenda through 2004].

2. MH-1 is just downgradient of CB-1 (data is compared to each other).

3

NL = Not listed

U = The material was analyzed for but not detected at, or above, the reporting limit. The associated numerical value is the sample quantitation limit.

J = The associated numerical value is an estimated quantity.

**Bold** value - compound detected at concentration greater than the reporting limit

**Yellow shaded** value - Compound detected in a concentration greater than the groundwater standard value.

s = Standard Value

g = Guidance Value

**Attachment 1**

**August, 28, 2013 Soil Vapor Intrusion Evaluation**



AECOM  
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716.836.4506      tel  
716.834.8785      fax

August 28, 2013

Mr. Glenn May  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

**Subject: Soil Vapor Intrusion Evaluation - Former Scott Aviation Facility Area 1 BCP Site  
NYSDEC Site Code No. C915233, Lancaster, New York**

Dear Mr. May,

On behalf of Tyco International (Tyco), AECOM Technical Services, Inc. (AECOM) is pleased to provide you with this letter-report summarizing the results of the recently completed soil vapor intrusion (SVI) evaluation at New York State Department of Environmental Conservation (NYSDEC) Site Code No. C915233, located west of AVOX Systems Inc. (AVOX) Plant 1 at the Former Scott Aviation Facility Brownfield Cleanup Program (Site) in Lancaster, New York. The SVI investigation was completed on AVOX property adjacent to the residence property to the west (205 Erie Street), and hydraulically down gradient of the presumed volatile organic compound (VOC) groundwater plume. This work was conducted in accordance with AECOM's work plan dated and submitted on July 8, 2013 to NYSDEC. This letter-report discusses the project intent, describes the field methodology employed, and summarizes both field observations and analytical results.

**Background**

The SVI investigation was completed at the Site after NYSDEC requested it in their letter to Tyco dated June 25, 2013. The Site consists of shallow groundwater impacted with chlorinated VOCs. The purpose of the SVI evaluation was to determine whether soil vapor in the vicinity of the residence at 205 Erie Street contained chlorinated VOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue for the nearby buildings (house and garage/shop). New York State Department of Health's (NYSDOH) final "Guidance for Evaluating Soil Vapor Intrusion in the State of New York" (October 2006), herein referred to as the DOH Guidance, outlines the suggested methodology to be used during a vapor intrusion study and provides an interpretive framework for the resulting analytical data, if applicable.

**Field Activities**

On July 11, 2013, AECOM installed three temporary SVI probes; on the next day (July 12, 2013), leak detection measurements and sampling activities were implemented. As proposed in the work plan, samples were attempted at a total of three temporary SVI probes and one ambient air location. Sampling locations are depicted on **Figure 1** and are briefly summarized in the following table:

Sample ID	Location
SVI-1	East of 205 Erie Street home; west of storm sewer line
SVI-2	East of 205 Erie Street garage/shop; west of storm sewer line
SVI-2R	East of 205 Erie Street garage/shop; west of storm sewer line
SVI-3	Between MW-35 cluster, CB-1, and 205 Erie Street garage/shop
SVI-3R	Between MW-35 cluster, CB-1, and 205 Erie Street garage/shop
AAS-1	Between SVI-2 and SVI-3; upwind of SVI points
Duplicate (AAS-1)	Between SVI-2 and SVI-3; upwind of SVI points

#### *Soil Vapor Sampling Methodology*

Temporary SVI probes were installed by Matrix Environmental Technologies, Inc. (Matrix), with AECOM oversight on July 11, 2013, using direct-push techniques to create a two-inch diameter borehole to an approximate depth of five feet below grade. Once the desired depth was reached, the drive rod was retracted, and the soil core was characterized and inspected for signs of groundwater. After the boreholes were determined to be dry, the SVI probes were installed. The probe consisted of a quarter-inch outer diameter Teflon tube which was installed to the bottom of the two-inch diameter borehole. The annulus was backfilled with approximately one-foot of clean coarse sand, followed by a cement-bentonite seal extending to ground surface and beyond the helium shroud used for tracer gas application. Each probe was allowed to equilibrate over a 24-hour period so that the cement-bentonite mixture could cure. The top of each probe was covered with a clean five-gallon bucket and orange safety cone to protect the SVI probe overnight.

On July 12, 2013, prior to attempting sample collection, helium tracer gas was injected into each helium shroud using application methods described in the NYSDOH's Guidance (Section 2.7.5). Prior to collection of soil vapor samples, the temporary SVI probes were purged of approximately three implant volumes (i.e., volume of the sample tube and sand pack). A Dielectric Technologies Model MGD-2002 Multi-Gas Leak Locator and GilAir-3 sample pump were used to purge the three implant volumes while simultaneously screening helium concentrations in purged vapor; the purge flow rate did not exceed 0.2 liters per minute. Once the seal was determined to be satisfactory, a MultiRae Model PGM-7240 photoionization detector (PID) was used to screen both the soil vapor and the ambient outdoor air for VOCs.

Each sample collection was attempted using a three-liter, stainless steel, SUMMA-type canister, equipped with a two-hour regulator. SVI and ambient air samples were collected concurrently; one field duplicate was collected at the ambient air location for quality assurance purposes. The field geologist recorded the sample identification, canister and regulator identification, date and time of sample collection, sampling depth and moisture content of the sampling zone, and the sampling method and device on a field log sheet. In addition, the purge volume, sample volume, canister vacuum pre- and post-sampling, and sampler name were recorded. The log sheet is included in **Attachment 1**. Any other pertinent field observations (i.e., odors or readings from field instrumentation) were also noted on the log sheet. The daily weather reports are also included in **Attachment 2**. After samples were attempted, SVI probes were removed and the boreholes were backfilled with topsoil and/or bentonite chips to restore the sample locations to their original condition.

Soil vapor samples were packaged and hand delivered to TestAmerica Laboratories in Amherst, New York under standard chain-of-custody procedures. All samples were analyzed for VOCs using EPA Method TO-15. A Category B deliverable package was requested for the soil vapor data and included the following elements: analytical report; quality assurance/quality control summary; chain

of custody; method blank; laboratory control samples – control limits; reporting limits; and, surrogate recoveries for gas chromatograph/mass spectrometer analysis with control limits. At this location, samples were collected of ambient air in two canisters positioned adjacent to each other.

#### *Field Observations*

No petroleum or chemical odors were noted in soils recovered during the installation of the soil borings. In addition, all PID readings were non-detect during the screening of soils. In general, shallow site soils consisted of approximately eight to 12 inches of topsoil (SVI points were located in lawn area) above reddish-brown silt with clay to a depth of 5 feet below grade. Soils were compact and dry throughout the sample core at each location.

There were no issues during leak detection activities; i.e., no detection of helium was noted, thus meeting NYSDOH's Guidance requirements (Section 2.7.5). A summary of observations and sampling parameters at each sample location is provided as a log in **Attachment 1**.

During sample collection at locations SVI-2 and SVI-3, the negative pressure of the Summa canister as recorded on the regulator did not change after more than two hours of attempted sample collection. On July 12, 2013 AECOM contacted NYSDEC to discuss options. As agreed by NYSDEC, on July 15, 2013, with new Summa canisters and new regulators, sample collection efforts at SVI-2 and SVI-3 were re-attempted. A soil vapor sample was successfully collected at SVI-3 (labeled SVI-3R). Sufficient air volume from the soil vapor location SVI-2 was not recovered as a likely result of the tight soils in the screen zone. The SVI point was exhumed and the tubing was inspected for signs of blockage or groundwater infiltration; however, none were observed. The Summa canister and regulator were also checked and verified that both were in working condition.

NYSDEC was contacted on July 15, 2013 to report on the second attempt at soil vapor collection. No additional sample collection was requested by NYSDEC until data were evaluated.

#### **Analytical Results**

As presented in the Draft Alternatives Analysis Report (AAR) dated April 30, 2013, observed contamination at the Site appears to mainly exist in the groundwater as VOCs. The table below summarizes the groundwater Constituents of Potential Concern (COPCs) for this Site, as well as the maximum detected concentrations of groundwater VOCs that exceed NYSDEC TOGS 1.1.1 protection of drinking water standards.

The maximum detected concentrations of groundwater VOCs which exceeded NYSDEC Groundwater Guidance or Standards, from the Remedial Investigation (RI) and Supplemental Remedial Investigation (SRI), are as follows:

<b>Constituent of Concern</b>	<b>NYSDEC Groundwater Guidance (g) or Standard (s) Value (µg/L)</b>	<b>Maximum Detected Conc. (µg/L)</b>	<b>Sample</b>	<b>Date of Maximum Detection</b>
Benzene	1 s	34 J	A1-GP13-S	8/3/10
Toluene	5 s	1,500	A1-GP01-S	6/22/10
Ethylbenzene	5 s	270	MW-38D	6/22/10
Xylenes (total)	5 s	2,000	A1-GP13-S	8/3/10
1,1,1-Trichloroethane	5 s	84,000	A1-GP10-S	8/3/10
1,1,2-Trichloro-1,2,2-trifluoroethane	5 s	4,400	A1-GP01-S	6/22/10
1,1,2-Trichloroethane	1 s	240 J	MW-42S	4/7/11
1,1-Dichloroethane	5 s	48,000	A1-GP10-S	8/3/10
1,1-Dichloroethene	5 s	6,100	MW-42S	4/7/11
1,2-Dichloroethane	0.6 s	77	A1-GP10-S	6/21/10
2-Butanone	50 g	510 J	MW-42S	4/7/11
Acetone	50 g	400	MW-42S	4/7/11
Chloroethane	5 s	180	A1-GP13-S	8/3/10
cis-1,2-Dichloroethene	5 s	22,000	A1-GP01-S	6/22/10
Dichlorodifluoromethane	5 s	33 J	A1-GP06-S	8/4/10
Methylene chloride	5 s	17	A1-GP10-S	6/21/10
Tetrachloroethene	5 s	230 J	MW-38D	6/22/10
trans-1,2-Dichloroethene	5 s	190 J	A1-GP02-S	8/4/10
Trichloroethene	5 s	20,000	A1-GP02-S	8/4/10
Vinyl chloride	2 s	2,200	A1-GP13-S	8/3/10

Storm sewer catch basins and groundwater within the associated pipe bedding were also sampled for VOCs as a part of the SRI, although they are likely influenced by groundwater, as the overburden groundwater elevation is high in that area of the Site. Compounds detected in the catch basins were also detected in groundwater; refer to the table below for compounds detected above USEPA Region 5 Ecological Screening Levels (USEPA, August 22, 2003).

<b>Constituent of Concern</b>	<b>USEPA Region 5 Ecological Screening Level (<math>\mu\text{g/L}</math>)</b>	<b>Maximum Detected Conc. (<math>\mu\text{g/L}</math>)</b>	<b>Sample</b>	<b>Date of Maximum Detection</b>
1,1,1-Trichloroethane	76	420	CB-1-06/01/2011	6/01/11
1,1-Dichloroethane	47	110	CB-E-06/16/2011	6/16/11
1,1-Dichloroethene	65	93	CB-E-06/16/2011	6/16/11
Trichloroethene	47	60	CB-E-06/16/2011	6/16/11

Based on the analytical results from the SVI evaluation, summarized in **Table 1**, a total of nine out of 20 COPCs were detected in one or both of the two soil vapor samples, at concentrations ranging from 0.67 to 28  $\mu\text{g/m}^3$ . Only two of these compounds were chlorinated VOCs (dichlorodifluoromethane [Freon-12] and trichloroethene [TCE]), while the other compounds included benzene, toluene, ethylbenzene, xylenes, and 2-butanone (methyl ethyl ketone).

From an SVI standpoint, TCE is the compound that warrants discussion. The NYSDOH has published Air Guideline Values (AGV) for TCE; however, the value was published specifically for indoor air samples. The AGV for TCE is 5  $\mu\text{g/m}^3$  versus a reported concentration of 6.2  $\mu\text{g/m}^3$  in SVI-1. There are no current state-enforceable standards, criteria or guidelines for concentrations of VOCs in soil vapor.

The Decision Matrices provided in the DOH Guidance are used as a reference for determining when a soil vapor concentration of certain chlorinated VOCs constitutes a potential SVI concern and warrants mitigation or further monitoring. Review of TCE results employs use of Matrix 1; however, a direct comparison cannot be made in the absence of sub-slab vapor and indoor air samples. Matrix 1 indicates that when sub-slab vapor concentrations are less than 5  $\mu\text{g/m}^3$ , no mitigation or further monitoring is required, regardless of the companion indoor air concentration. The reported TCE concentration in SVI-1 is only marginally above that level and some attenuation would be expected in an overlying structure. No TCE was reported in SVI-3R.

Analytical data identified the apparent presence of nine other VOCs at samples SVI-1 and SVI-3R. Eight of these compounds were reported at generally low concentrations (0.67 to 55  $\mu\text{g/m}^3$ ), while chloroform was detected at 670  $\mu\text{g/m}^3$ . Chloroform has not been reported in the site groundwater monitoring network.

The ambient outdoor air samples exhibited trace levels of 17 VOCs (0.2 to 3.1  $\mu\text{g/m}^3$ ). In general, the analytical results from the field duplicate corroborated the concentrations identified in the parent sample (AAS-1).

The laboratory summary sheets are included as **Attachment 3**. The full analytical report (Category B deliverable package) with QA/QC data is available upon request.

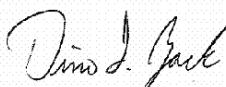
## Conclusions

In July 2013, a total of two soil vapor samples and one ambient air sample were collected on the west side of the Site (adjacent to residence property at 205 Erie Street) using 3-liter SUMMA canisters equipped with two-hour regulators. Based on the information collected, AECOM provides the following conclusions regarding the soil vapor sampling activities west of AVOX Plant 1:

- Temporary probes were installed at a depth of approximately 5 feet below grade; soil conditions were dry and no groundwater was observed during installation of the points or during sample collection. The lithology was silty clay and clayey silt; consistent with lithology observed at borings within the same depth.
- Freon-12 (SVI-3R) and TCE (SVI-1) were the only chlorinated COPCs reported in soil vapor at 2.5 and 6.2  $\mu\text{g}/\text{m}^3$ , respectively. Neither compound was present in both samples. NYSDOH Guidance emphasizes TCE as an SVI concern; however, direct comparison to the Decision Matrices cannot be made using outdoor soil vapor and ambient air results. Since TCE was reported at a fairly low concentration and was absent in the sample collected closest to the groundwater plume, no further action is considered necessary to assess SVI potential for TCE in off-site residences.
- Several other COPCs were reported at varying concentrations in addition to VOCs that are not considered to be site-related. From an SVI standpoint, no further action is considered warranted with respect to these other compounds.

If you have any questions regarding this submission, please do not hesitate to contact me at (716) 836-4506 ext. 15 or via email.

Yours sincerely,



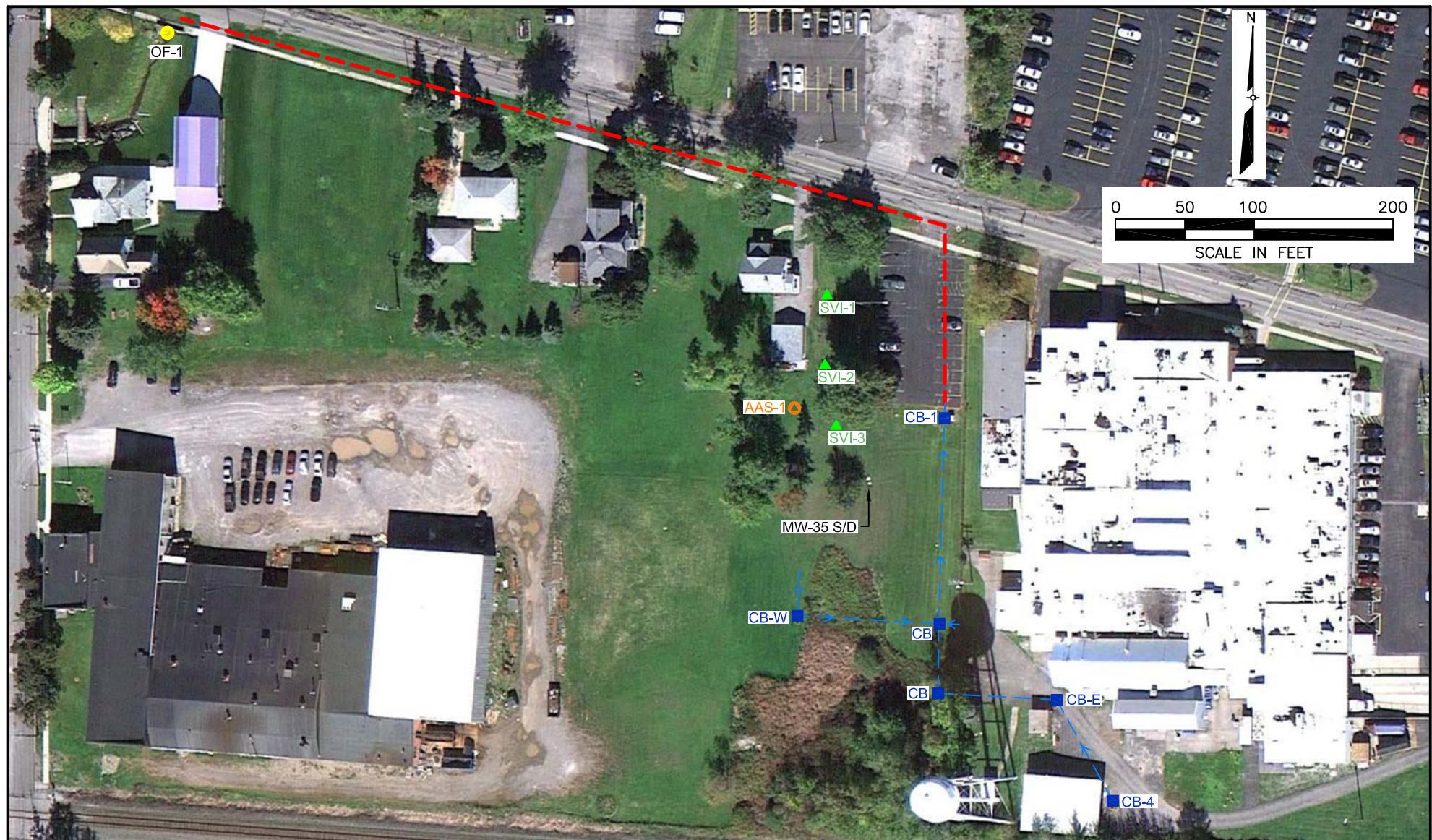
Dino L. Zack, P.G.  
Project Manager  
[dino.zack@aecom.com](mailto:dino.zack@aecom.com)

## Enclosures

Cc: Gregory Sutton (NYSDEC) – electronic copy  
Deanna Ripstein (NYSDOH) – electronic copy  
Stuart Rixman (Tyco International) – electronic copy  
Joseph Janeczek (Tyco International) – electronic copy  
Eric Frauen (O&M, Inc.) – electronic copy  
Jennifer Davide (AVOX Systems Inc.) – electronic copy  
AECOM Project File – electronic copy



**FIGURE**



#### LEGEND

- SVI-1 ▲ SOIL VAPOR POINT LOCATION
- AAS-1 ● AMBIENT AIR SAMPLE LOCATION
- CB-E ■ CATCH BASIN
- OF-1 ● OUTFALL
- <— STORM SEWER AND FLOW DIRECTION
- ESTIMATED STORM SEWER LOCATION

**AECOM**

**FIGURE 1**  
**SOIL VAPOR POINT LOCATIONS**

FORMER SCOTT AVIATION FACILITY AREA 1  
LANCASTER, NEW YORK



## TABLE

**Table 1**  
**Air TO-15 Results**  
**Former Scott Aviation Facility - NYSDEC BCP Site No. C915233**  
**Lancaster, New York**

Type of Sample	AMBIENT	AMBIENT	SOIL VAPOR	SOIL VAPOR
Sample ID	Ambient	Duplicate	SVI-1	SVI-3R
Laboratory ID	480-41972-4	480-41972-5	480-41972-1	480-42018-2
Sampling Date	7/12/2013	7/12/2013	7/12/2013	7/15/2013
<b>Compound (<math>\mu\text{g}/\text{m}^3</math>)</b>				
1,1,1-Trichloroethane	0.22	U	0.22	U
1,1,2,2-Tetrachloroethane	0.27	U	0.27	U
1,1,2-Trichloroethane	0.22	U	0.22	U
1,1-Dichloroethane	0.16	U	0.16	U
1,1-Dichloroethene	0.16	U	0.16	U
1,2,4-Trichlorobenzene	NA	NA	19	U
1,2,4-Trimethylbenzene	NA	NA	7.8	U
1,2-Dibromoethane	0.31	U	0.31	U
1,2-Dichlorobenzene	NA	NA	6	U
1,2-Dichloroethane	0.32	U	0.32	U
1,2-Dichloroethene, Total	0.16	U	0.16	U
1,2-Dichloropropane	0.37	U	0.37	U
1,2-Dichlorotetrafluoroethane	0.28	U	0.28	U
1,3,5-Trimethylbenzene	0.39	U	0.39	U
1,3-Butadiene	0.18	U	0.18	U
1,3-Dichlorobenzene	NA	NA	6	U
1,4-Dichlorobenzene	NA	NA	6	U
1,4-Dioxane	NA	NA	90	U
2,2,4-Trimethylpentane	<b>0.45</b>		<b>0.55</b>	U
2-Chlorotoluene	NA	NA	5.2	U
3-Chloropropene	0.25	U	0.25	U
4-Ethyltoluene	0.20	U	0.20	U
4-Isopropyltoluene	NA	NA	5.5	U
Acetone	NA	NA	59	U
Benzene	<b>0.64</b>		<b>0.86</b>	U
Benzyl chloride	NA	NA	5.2	U
Bromodichloromethane	0.27	U	0.27	U
Bromoethene(Vinyl Bromide)	0.35	U	0.35	U
Bromoform	0.41	U	0.41	U
Bromomethane	0.31	U	0.31	U
Carbon disulfide	NA	NA	55	U
Carbon tetrachloride	<b>0.48</b>		<b>0.49</b>	U
Chlorobenzene	NA	NA	4.6	U
Chloroethane	0.21	U	<b>0.34</b>	U
Chloroform	<b>0.20</b>		<b>0.22</b>	U
Chloromethane	NA	NA	5.2	U
cis-1,2-Dichloroethene	0.16	U	0.16	U
cis-1,3-Dichloropropene	0.18	U	0.18	U
Cumene	NA	NA	4.9	U
Cyclohexane	<b>0.29</b>		<b>0.57</b>	U
Dibromochloromethane	0.34	U	0.34	U
Dichlorodifluoromethane	<b>2.0</b>		<b>1.9</b>	U
Ethylbenzene	<b>0.26</b>		<b>0.35</b>	U
Freon 22	NA	NA	8.8	U
Freon TF	NA	NA	7.7	U
Hexachlorobutadiene	NA	NA	11	U
Isopropyl alcohol	NA	NA	61.00	U
m,p-Xylene	<b>0.77</b>		<b>1.2</b>	U
Methyl Butyl Ketone (2-Hexanone)	NA	NA	10	U
Methyl Ethyl Ketone	NA	NA	7.4	U
methyl isobutyl ketone	NA	NA	10	U
Methyl methacrylate	NA	NA	10	U
Methyl tert-butyl ether	0.14	U	0.14	U
Methylene Chloride	<b>1.4</b>		<b>3.1</b>	U
Naphthalene	NA	NA	13	U
n-Butane	NA	NA	<b>49</b>	U
n-Butylbenzene	NA	NA	5.50	U
n-Heptane	0.26	U	<b>0.78</b>	U
n-Hexane	0.69	U	<b>1.7</b>	U
n-Propylbenzene	NA	NA	4.9	U
sec-Butylbenzene	NA	NA	5.5	U
Styrene	NA	NA	4.3	U
tert-Butyl alcohol	NA	NA	76	U
tert-Butylbenzene	NA	NA	5.5	U
Tetrachloroethene	0.27	U	0.27	U
Tetrahydrofuran	NA	NA	74	U
Toluene	<b>1.3</b>		<b>2.7</b>	U
trans-1,2-Dichloroethene	0.16	U	0.16	U
trans-1,3-Dichloropropene	0.18	U	0.18	U
Trichloroethene	0.21	U	<b>0.39</b>	U
Trichlorofluoromethane	<b>0.91</b>		<b>1.0</b>	U
Vinyl chloride	0.20	U	0.20	U
Xylene (total)	<b>1.1</b>		<b>1.6</b>	U
Xylene, o-	<b>0.34</b>		<b>0.44</b>	U
<b>Notes:</b>				
All units in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )				
Sample "Duplicate" is a duplicate sample of "Ambient".				
<b>Bold</b> - Compound detected in a concentration greater than the method detection limits.				
U - The compound was analyzed for, but was not detected above the method detection limit.				
NA - Compound not analyzed for in TO-15 Low Level scan (ambient air only).				
Yellow shaded cells indicate compounds that represent the primary site contaminants of concern (COC).				



## **ATTACHMENT 1**

### **Soil/Ambient Vapor Sampling Log Sheet**

**VAPOR INTRUSION EVALUATION**  
**SOIL/AMBIENT VAPOR SAMPLING LOG SHEET**  
 FORMER SCOTT AVIATION FACILITY AREA 1 BCP Site, NYSDEC SITE CODE C915233  
 LANCASTER, NEW YORK

Sample ID	Sample Date	Sampled By	Canister Number	Flow Controller Number	Sample Start Time	Sample Stop Time	Sample Depth	Purge Volume	Sampled Volume	Soil Moisture Content	PID (ppm)	Detected Helium Conc. (ppm)	Vacuum Before	Vacuum After	Comments
SVI-1	7/12/2013	M.Janus (Matrix)	3658	4244	7:38	9:42	5'	400 mL	3 L	dry	0.0	0.0	-29" Hg	-5" Hg	-
SVI-2	7/12/2013	M.Janus (Matrix)	4515	4515	7:40	10:30	5'	400 mL	3 L	dry	0.0	0.0	-30" Hg	-29" Hg	sample not collected
SVI-3	7/12/2013	M.Janus (Matrix)	3376	2631	7:42	10:33	5'	400 mL	3 L	dry	0.0	0.0	-28" Hg	-26" Hg	sample not collected
SVI-2R	7/15/2013	J.Kaczor (AECOM)	4277	2831	13:46	14:08	5'	400 mL	3 L	dry	0.0	0.0	-29.5" Hg	-29.5" Hg	sample not collected
SVI-3R	7/15/2013	J.Kaczor (AECOM)	3236	5186	13:26	14:10	5'	400 mL	3 L	dry	0.0	0.0	-27" Hg	-1.5" Hg	-
AAS-1	7/12/2013	M.Janus (Matrix)	2634	3051	7:30	9:38	-	400 mL	3 L	-	0.0	-	-30" Hg	0" Hg	-
Duplicate	7/12/2013	M.Janus (Matrix)	3477	2764	7:35	9:40	-	400 mL	3 L	-	0.0	-	-28" Hg	-3" Hg	-

Notes: All samples collected in 3-liter SUMMA canisters.

All regulators were pre-set by laboratory to 0.2 Liters/minute sampling rate

SVI - soil vapor intrusion sample point

AAS - ambient air sample

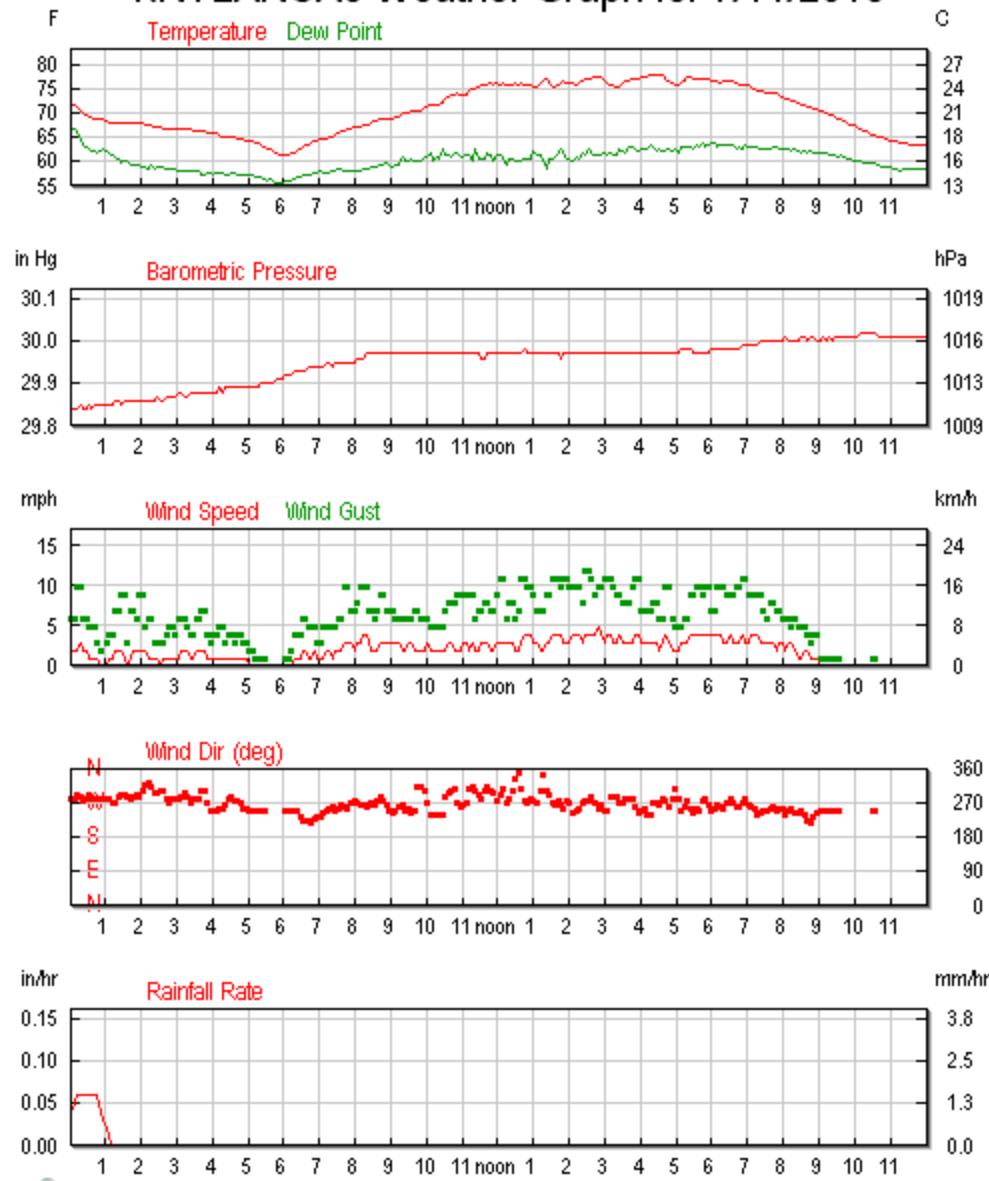


## **ATTACHMENT 2**

### **Daily Weather Reports**

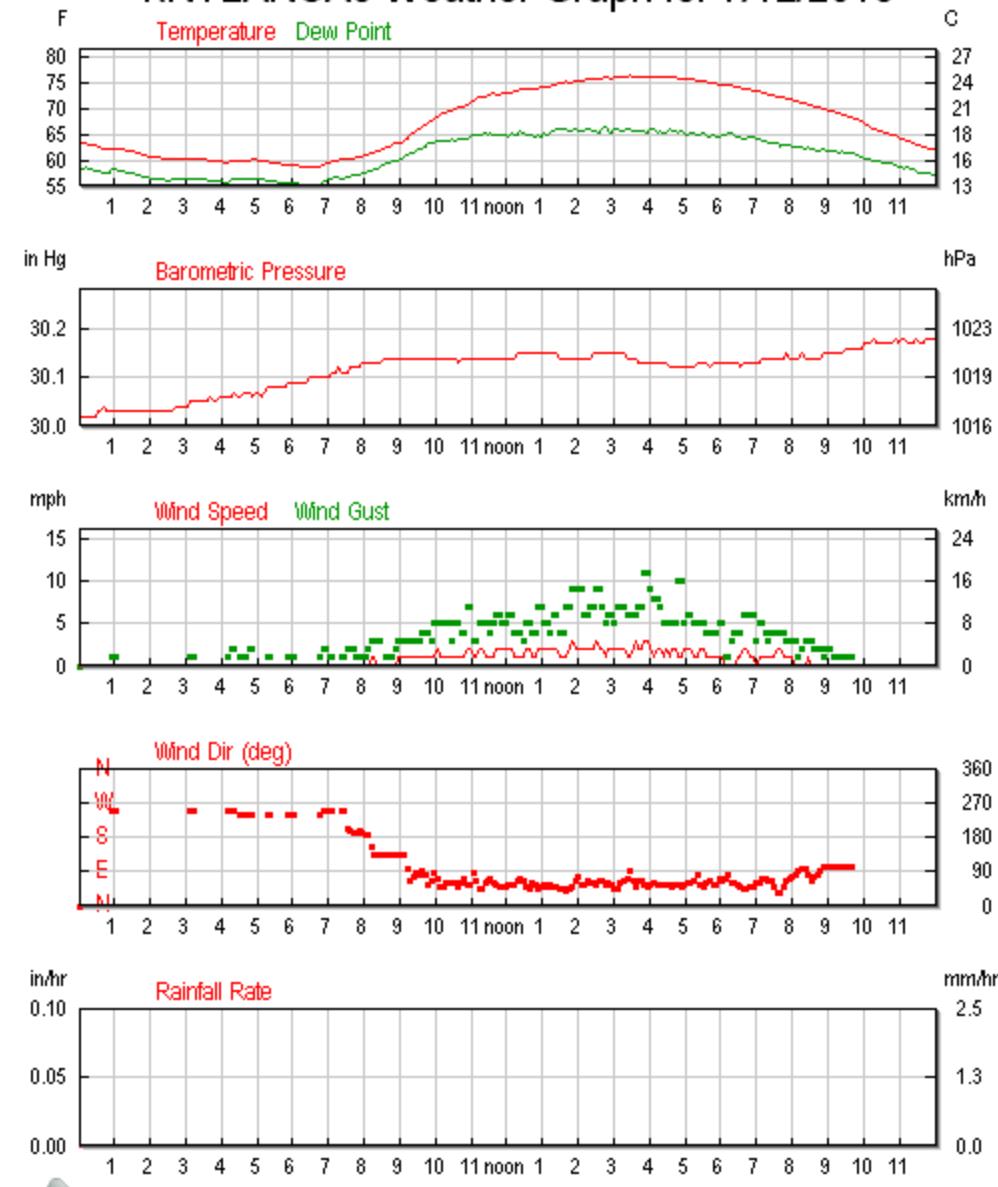
	High:	Low:	Average:
Temperature:	93.5 °F	49.2 °F	73.1 °F
Dew Point:	78.9 °F	44.6 °F	64.7 °F
Humidity:	90.0%	42.0%	75.8%
Wind Speed:	29.0mph from the SW	-	2.7mph
Wind Gust:	31.0mph from the WSW	-	-
Wind:	-	-	SSW
Pressure:	30.30in	29.63in	-
Precipitation:	2.80in	-	-

## KNYLANCA3 Weather Graph for 7/11/2013



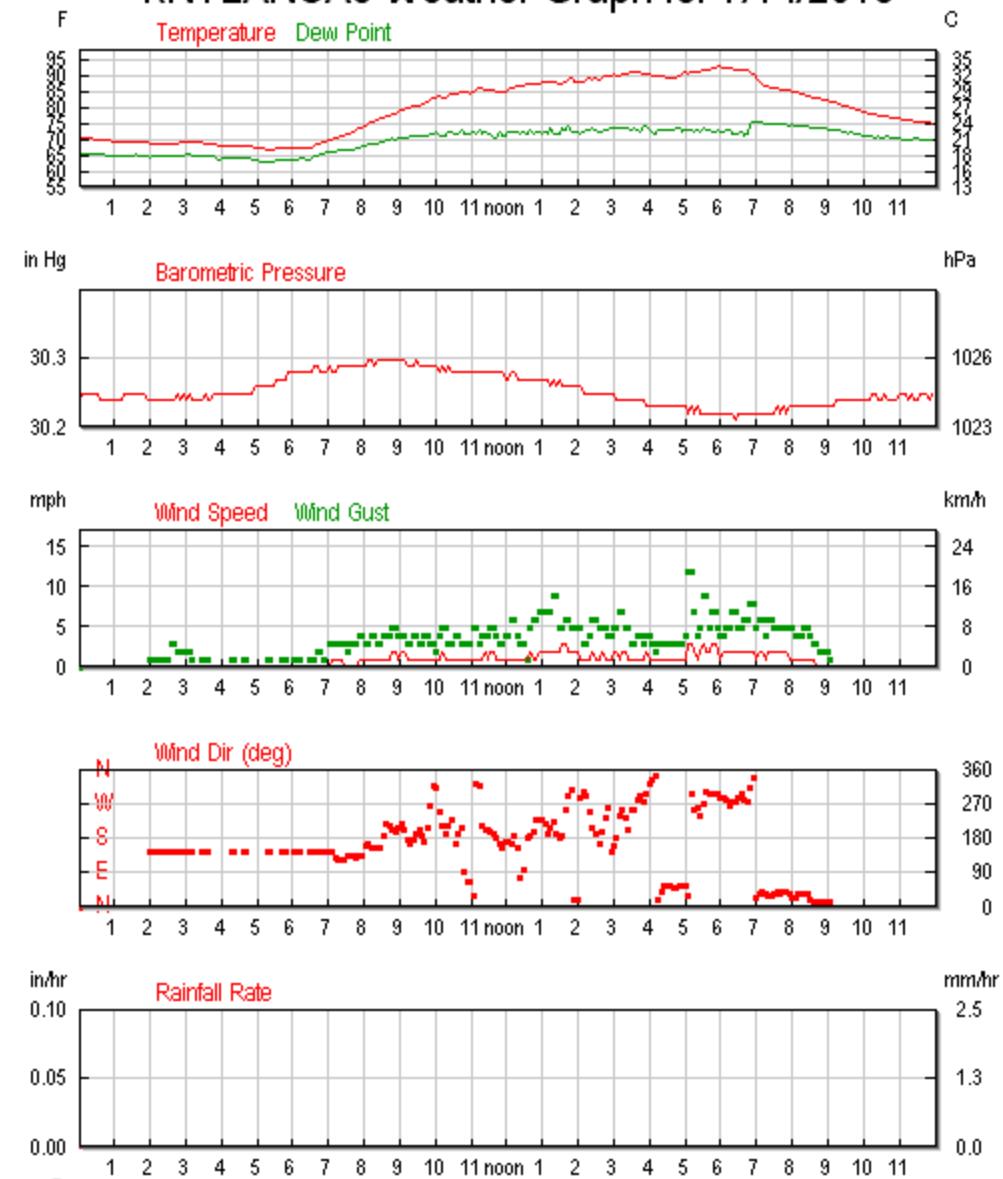
	High:	Low:	Average:
Temperature:	93.5 °F	49.2 °F	73.1 °F
Dew Point:	78.9 °F	44.6 °F	64.7 °F
Humidity:	90.0%	42.0%	75.8%
Wind Speed:	29.0mph from the SW	-	2.7mph
Wind Gust:	31.0mph from the WSW	-	-
Wind:	-	-	SSW
Pressure:	30.30in	29.63in	-
Precipitation:	2.80in	-	-

## KNYLANCA3 Weather Graph for 7/12/2013



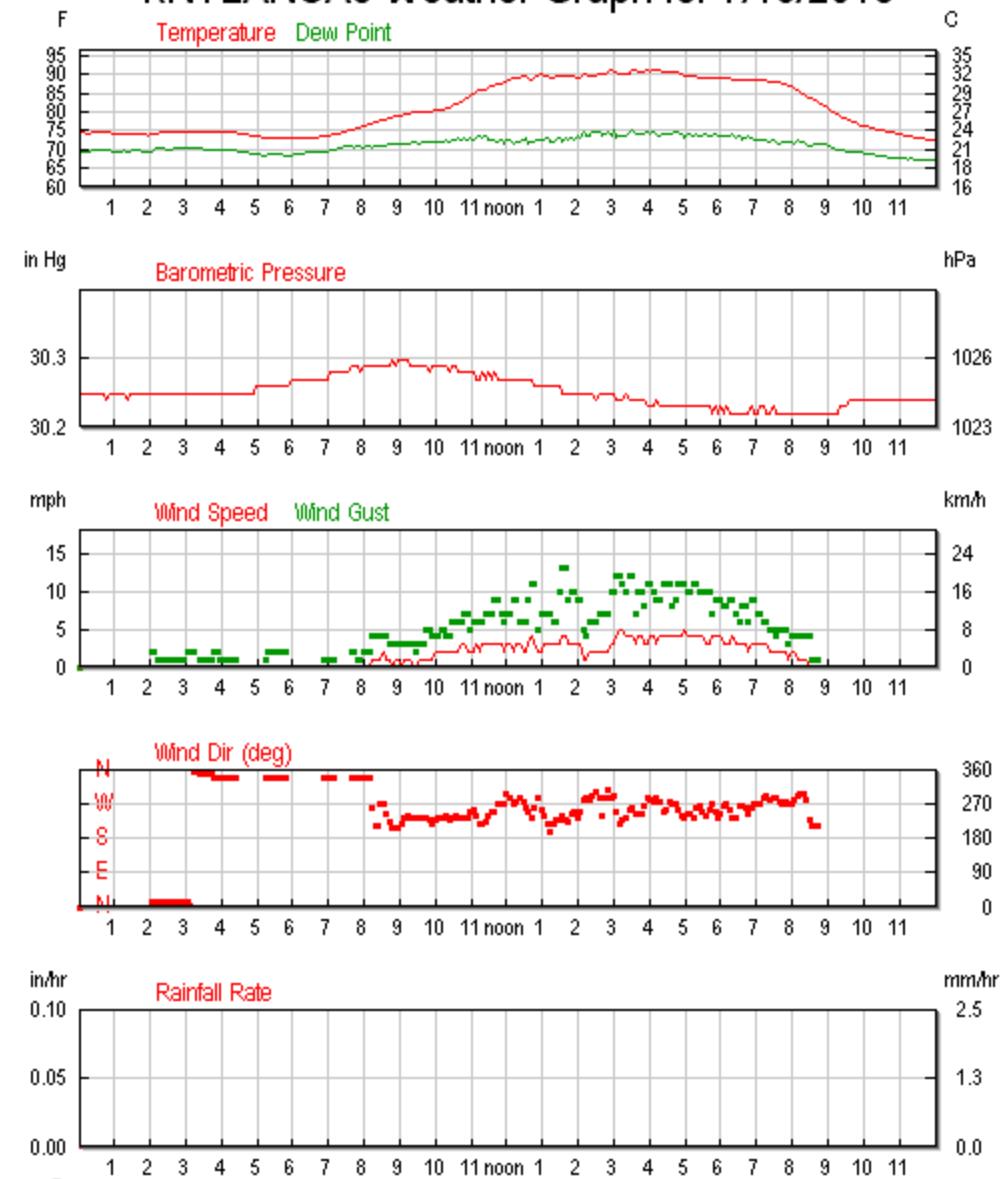
High:	Low:	Average:	
Temperature:	93.5 °F	49.2 °F	73.1 °F
Dew Point:	78.9 °F	44.6 °F	64.7 °F
Humidity:	90.0%	42.0%	75.8%
Wind Speed:	29.0mph from the SW	-	2.7mph
Wind Gust:	31.0mph from the WSW	-	-
Wind:	-	-	SSW
Pressure:	30.30in	29.63in	-
Precipitation:	2.80in		

## KNYLANCA3 Weather Graph for 7/14/2013



High:	Low:	Average:	
Temperature:	93.5 °F	49.2 °F	73.1 °F
Dew Point:	78.9 °F	44.6 °F	64.7 °F
Humidity:	90.0%	42.0%	75.8%
Wind Speed:	29.0mph from the SW	-	2.7mph
Wind Gust:	31.0mph from the WSW	-	-
Wind:	-	-	SSW
Pressure:	30.30in	29.63in	-
Precipitation:	2.80in		

## KNYLANCA3 Weather Graph for 7/15/2013





## **ATTACHMENT 3**

**Analytical Laboratory Summary Sheets  
(Full data reports available upon request)**

## SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-41972-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-41972-1	SVI-1	Air	07/12/2013 0738	07/13/2013 1000
480-41972-4	Ambient	Air	07/12/2013 0730	07/13/2013 1000
480-41972-5	Duplicate	Air	07/12/2013 0735	07/13/2013 1000
480-42018-2	SVI-3 (R)	Air	07/15/2013 1410	07/15/2013 1600

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-1**Lab Sample ID: 480-41972-1  
Client Matrix: AirDate Sampled: 07/12/2013 0738  
Date Received: 07/13/2013 1000**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd18.d
Dilution:	5.0			Initial Weight/Volume:	40 mL
Analysis Date:	07/26/2013 0124			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0124			Injection Volume:	200 mL

Analyte	Result (mg/m3)	Qualifier	RL	RL
Dichlorodifluoromethane	ND		0.012	0.012
Freon 22	ND		0.0088	0.0088
1,2-Dichlorotetrafluoroethane	ND		0.0070	0.0070
Chloromethane	ND		0.0052	0.0052
n-Butane	0.049		0.0059	0.0059
Vinyl chloride	ND		0.0026	0.0026
1,3-Butadiene	ND		0.0022	0.0022
Bromomethane	ND		0.0039	0.0039
Chloroethane	ND		0.0066	0.0066
Bromoethene(Vinyl Bromide)	ND		0.0044	0.0044
Trichlorofluoromethane	ND		0.0056	0.0056
Freon TF	ND		0.0077	0.0077
1,1-Dichloroethene	ND		0.0040	0.0040
Acetone	ND		0.059	0.059
Isopropyl alcohol	ND		0.061	0.061
Carbon disulfide	0.055		0.0078	0.0078
3-Chloropropene	ND		0.0078	0.0078
Methylene Chloride	ND		0.0087	0.0087
tert-Butyl alcohol	ND		0.076	0.076
Methyl tert-butyl ether	ND		0.0036	0.0036
trans-1,2-Dichloroethene	ND		0.0040	0.0040
n-Hexane	0.014		0.0035	0.0035
1,1-Dichloroethane	ND		0.0040	0.0040
Methyl Ethyl Ketone	ND		0.0074	0.0074
cis-1,2-Dichloroethene	ND		0.0040	0.0040
1,2-Dichloroethene, Total	ND		0.0040	0.0040
Chloroform	0.67		0.0049	0.0049
Tetrahydrofuran	ND		0.074	0.074
1,1,1-Trichloroethane	ND		0.0055	0.0055
Cyclohexane	0.0042		0.0034	0.0034
Carbon tetrachloride	ND		0.0063	0.0063
2,2,4-Trimethylpentane	ND		0.0047	0.0047
Benzene	0.0054		0.0032	0.0032
1,2-Dichloroethane	ND		0.0040	0.0040
n-Heptane	0.0069		0.0041	0.0041
Trichloroethene	0.0062		0.0054	0.0054
Methyl methacrylate	ND		0.010	0.010
1,2-Dichloropropane	ND		0.0046	0.0046
1,4-Dioxane	ND		0.090	0.090
Bromodichloromethane	0.022		0.0067	0.0067
cis-1,3-Dichloropropene	ND		0.0045	0.0045
methyl isobutyl ketone	ND		0.010	0.010
Toluene	0.018		0.0038	0.0038
trans-1,3-Dichloropropene	ND		0.0045	0.0045
1,1,2-Trichloroethane	ND		0.0055	0.0055
Tetrachloroethene	ND		0.0068	0.0068

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-1**

Lab Sample ID: 480-41972-1  
 Client Matrix: Air

Date Sampled: 07/12/2013 0738  
 Date Received: 07/13/2013 1000

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd18.d
Dilution:	5.0			Initial Weight/Volume:	40 mL
Analysis Date:	07/26/2013 0124			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0124			Injection Volume:	200 mL

Analyte	Result (mg/m3)	Qualifier	RL	RL
Methyl Butyl Ketone (2-Hexanone)	ND		0.010	0.010
Dibromochloromethane	ND		0.0085	0.0085
1,2-Dibromoethane	ND		0.0077	0.0077
Chlorobenzene	ND		0.0046	0.0046
Ethylbenzene	0.0061		0.0043	0.0043
m,p-Xylene	0.019		0.011	0.011
Xylene, o-	0.0056		0.0043	0.0043
Xylene (total)	0.025		0.0043	0.0043
Styrene	ND		0.0043	0.0043
Bromoform	ND		0.010	0.010
Cumene	ND		0.0049	0.0049
1,1,2,2-Tetrachloroethane	ND		0.0069	0.0069
n-Propylbenzene	ND		0.0049	0.0049
4-Ethyltoluene	ND		0.0049	0.0049
1,3,5-Trimethylbenzene	ND		0.0049	0.0049
2-Chlorotoluene	ND		0.0052	0.0052
tert-Butylbenzene	ND		0.0055	0.0055
1,2,4-Trimethylbenzene	0.0078		0.0049	0.0049
sec-Butylbenzene	ND		0.0055	0.0055
4-Isopropyltoluene	ND		0.0055	0.0055
1,3-Dichlorobenzene	ND		0.0060	0.0060
1,4-Dichlorobenzene	ND		0.0060	0.0060
Benzyl chloride	ND		0.0052	0.0052
n-Butylbenzene	ND		0.0055	0.0055
1,2-Dichlorobenzene	ND		0.0060	0.0060
1,2,4-Trichlorobenzene	ND		0.019	0.019
Hexachlorobutadiene	ND		0.011	0.011
Naphthalene	ND		0.013	0.013

Analyte	Result (ppb v/v)	Qualifier	RL	RL
Dichlorodifluoromethane	ND		2.5	2.5
Freon 22	ND		2.5	2.5
1,2-Dichlorotetrafluoroethane	ND		1.0	1.0
Chloromethane	ND		2.5	2.5
n-Butane	21		2.5	2.5
Vinyl chloride	ND		1.0	1.0
1,3-Butadiene	ND		1.0	1.0
Bromomethane	ND		1.0	1.0
Chloroethane	ND		2.5	2.5
Bromoethene(Vinyl Bromide)	ND		1.0	1.0
Trichlorofluoromethane	ND		1.0	1.0
Freon TF	ND		1.0	1.0
1,1-Dichloroethene	ND		1.0	1.0
Acetone	ND		25	25
Isopropyl alcohol	ND		25	25
Carbon disulfide	18		2.5	2.5

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** SVI-1Lab Sample ID: 480-41972-1  
Client Matrix: AirDate Sampled: 07/12/2013 0738  
Date Received: 07/13/2013 1000**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd18.d
Dilution:	5.0			Initial Weight/Volume:	40 mL
Analysis Date:	07/26/2013 0124			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0124			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
3-Chloropropene	ND		2.5	2.5
Methylene Chloride	ND		2.5	2.5
tert-Butyl alcohol	ND		25	25
Methyl tert-butyl ether	ND		1.0	1.0
trans-1,2-Dichloroethene	ND		1.0	1.0
n-Hexane	3.9		1.0	1.0
1,1-Dichloroethane	ND		1.0	1.0
Methyl Ethyl Ketone	ND		2.5	2.5
cis-1,2-Dichloroethene	ND		1.0	1.0
1,2-Dichloroethene, Total	ND		1.0	1.0
Chloroform	140		1.0	1.0
Tetrahydrofuran	ND		25	25
1,1,1-Trichloroethane	ND		1.0	1.0
Cyclohexane	1.2		1.0	1.0
Carbon tetrachloride	ND		1.0	1.0
2,2,4-Trimethylpentane	ND		1.0	1.0
Benzene	1.7		1.0	1.0
1,2-Dichloroethane	ND		1.0	1.0
n-Heptane	1.7		1.0	1.0
Trichloroethene	1.1		1.0	1.0
Methyl methacrylate	ND		2.5	2.5
1,2-Dichloropropane	ND		1.0	1.0
1,4-Dioxane	ND		25	25
Bromodichloromethane	3.2		1.0	1.0
cis-1,3-Dichloropropene	ND		1.0	1.0
methyl isobutyl ketone	ND		2.5	2.5
Toluene	4.9		1.0	1.0
trans-1,3-Dichloropropene	ND		1.0	1.0
1,1,2-Trichloroethane	ND		1.0	1.0
Tetrachloroethene	ND		1.0	1.0
Methyl Butyl Ketone (2-Hexanone)	ND		2.5	2.5
Dibromochloromethane	ND		1.0	1.0
1,2-Dibromoethane	ND		1.0	1.0
Chlorobenzene	ND		1.0	1.0
Ethylbenzene	1.4		1.0	1.0
m,p-Xylene	4.5		2.5	2.5
Xylene, o-	1.3		1.0	1.0
Xylene (total)	5.8		1.0	1.0
Styrene	ND		1.0	1.0
Bromoform	ND		1.0	1.0
Cumene	ND		1.0	1.0
1,1,2,2-Tetrachloroethane	ND		1.0	1.0
n-Propylbenzene	ND		1.0	1.0
4-Ethyltoluene	ND		1.0	1.0
1,3,5-Trimethylbenzene	ND		1.0	1.0
2-Chlorotoluene	ND		1.0	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-1**Lab Sample ID: 480-41972-1  
Client Matrix: AirDate Sampled: 07/12/2013 0738  
Date Received: 07/13/2013 1000**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd18.d
Dilution:	5.0			Initial Weight/Volume:	40 mL
Analysis Date:	07/26/2013 0124			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0124			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
tert-Butylbenzene	ND		1.0	1.0
1,2,4-Trimethylbenzene	1.6		1.0	1.0
sec-Butylbenzene	ND		1.0	1.0
4-Isopropyltoluene	ND		1.0	1.0
1,3-Dichlorobenzene	ND		1.0	1.0
1,4-Dichlorobenzene	ND		1.0	1.0
Benzyl chloride	ND		1.0	1.0
n-Butylbenzene	ND		1.0	1.0
1,2-Dichlorobenzene	ND		1.0	1.0
1,2,4-Trichlorobenzene	ND		2.5	2.5
Hexachlorobutadiene	ND		1.0	1.0
Naphthalene	ND		2.5	2.5

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-3 (R)**Lab Sample ID: 480-42018-2  
Client Matrix: AirDate Sampled: 07/15/2013 1410  
Date Received: 07/15/2013 1600**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd20.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/26/2013 0309			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0309			Injection Volume:	200 mL

Analyte	Result (mg/m3)	Qualifier	RL	RL
Dichlorodifluoromethane	0.0025		0.0025	0.0025
Freon 22	ND		0.0018	0.0018
1,2-Dichlorotetrafluoroethane	ND		0.0014	0.0014
Chloromethane	0.0017		0.0010	0.0010
n-Butane	ND		0.0012	0.0012
Vinyl chloride	ND		0.00051	0.00051
1,3-Butadiene	ND		0.00044	0.00044
Bromomethane	ND		0.00078	0.00078
Chloroethane	ND		0.0013	0.0013
Bromoethene(Vinyl Bromide)	ND		0.00087	0.00087
Trichlorofluoromethane	0.0016		0.0011	0.0011
Freon TF	ND		0.0015	0.0015
1,1-Dichloroethene	ND		0.00079	0.00079
Acetone	0.028		0.012	0.012
Isopropyl alcohol	ND		0.012	0.012
Carbon disulfide	0.0066		0.0016	0.0016
3-Chloropropene	ND		0.0016	0.0016
Methylene Chloride	ND		0.0017	0.0017
tert-Butyl alcohol	ND		0.015	0.015
Methyl tert-butyl ether	ND		0.00072	0.00072
trans-1,2-Dichloroethene	ND		0.00079	0.00079
n-Hexane	0.00078		0.00070	0.00070
1,1-Dichloroethane	ND		0.00081	0.00081
Methyl Ethyl Ketone	0.0088		0.0015	0.0015
cis-1,2-Dichloroethene	ND		0.00079	0.00079
1,2-Dichloroethene, Total	ND		0.00079	0.00079
Chloroform	ND		0.00098	0.00098
Tetrahydrofuran	ND		0.015	0.015
1,1,1-Trichloroethane	ND		0.0011	0.0011
Cyclohexane	ND		0.00069	0.00069
Carbon tetrachloride	ND		0.0013	0.0013
2,2,4-Trimethylpentane	ND		0.00093	0.00093
Benzene	0.00067		0.00064	0.00064
1,2-Dichloroethane	ND		0.00081	0.00081
n-Heptane	ND		0.00082	0.00082
Trichloroethene	ND		0.0011	0.0011
Methyl methacrylate	ND		0.0020	0.0020
1,2-Dichloropropane	ND		0.00092	0.00092
1,4-Dioxane	ND		0.018	0.018
Bromodichloromethane	ND		0.0013	0.0013
cis-1,3-Dichloropropene	ND		0.00091	0.00091
methyl isobutyl ketone	ND		0.0020	0.0020
Toluene	0.0050		0.00075	0.00075
trans-1,3-Dichloropropene	ND		0.00091	0.00091
1,1,2-Trichloroethane	ND		0.0011	0.0011
Tetrachloroethene	ND		0.0014	0.0014

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

Client Sample ID: **SVI-3 (R)**

Lab Sample ID: 480-42018-2

Date Sampled: 07/15/2013 1410

Client Matrix: Air

Date Received: 07/15/2013 1600

**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd20.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/26/2013 0309			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0309			Injection Volume:	200 mL

Analyte	Result (mg/m3)	Qualifier	RL	RL
Methyl Butyl Ketone (2-Hexanone)	ND		0.0020	0.0020
Dibromochloromethane	ND		0.0017	0.0017
1,2-Dibromoethane	ND		0.0015	0.0015
Chlorobenzene	ND		0.00092	0.00092
Ethylbenzene	ND		0.00087	0.00087
m,p-Xylene	ND		0.0022	0.0022
Xylene, o-	ND		0.00087	0.00087
Xylene (total)	ND		0.00087	0.00087
Styrene	ND		0.00085	0.00085
Bromoform	ND		0.0021	0.0021
Cumene	ND		0.00098	0.00098
1,1,2,2-Tetrachloroethane	ND		0.0014	0.0014
n-Propylbenzene	ND		0.00098	0.00098
4-Ethyltoluene	ND		0.00098	0.00098
1,3,5-Trimethylbenzene	ND		0.00098	0.00098
2-Chlorotoluene	ND		0.0010	0.0010
tert-Butylbenzene	ND		0.0011	0.0011
1,2,4-Trimethylbenzene	ND		0.00098	0.00098
sec-Butylbenzene	ND		0.0011	0.0011
4-Isopropyltoluene	ND		0.0011	0.0011
1,3-Dichlorobenzene	ND		0.0012	0.0012
1,4-Dichlorobenzene	ND		0.0012	0.0012
Benzyl chloride	ND		0.0010	0.0010
n-Butylbenzene	ND		0.0011	0.0011
1,2-Dichlorobenzene	ND		0.0012	0.0012
1,2,4-Trichlorobenzene	ND		0.0037	0.0037
Hexachlorobutadiene	ND		0.0021	0.0021
Naphthalene	ND		0.0026	0.0026

Analyte	Result (ppb v/v)	Qualifier	RL	RL
Dichlorodifluoromethane	0.50		0.50	0.50
Freon 22	ND		0.50	0.50
1,2-Dichlorotetrafluoroethane	ND		0.20	0.20
Chloromethane	0.83		0.50	0.50
n-Butane	ND		0.50	0.50
Vinyl chloride	ND		0.20	0.20
1,3-Butadiene	ND		0.20	0.20
Bromomethane	ND		0.20	0.20
Chloroethane	ND		0.50	0.50
Bromoethene(Vinyl Bromide)	ND		0.20	0.20
Trichlorofluoromethane	0.28		0.20	0.20
Freon TF	ND		0.20	0.20
1,1-Dichloroethene	ND		0.20	0.20
Acetone	12		5.0	5.0
Isopropyl alcohol	ND		5.0	5.0
Carbon disulfide	2.1		0.50	0.50

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-3 (R)**Lab Sample ID: 480-42018-2  
Client Matrix: AirDate Sampled: 07/15/2013 1410  
Date Received: 07/15/2013 1600**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd20.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/26/2013 0309			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0309			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
3-Chloropropene	ND		0.50	0.50
Methylene Chloride	ND		0.50	0.50
tert-Butyl alcohol	ND		5.0	5.0
Methyl tert-butyl ether	ND		0.20	0.20
trans-1,2-Dichloroethene	ND		0.20	0.20
n-Hexane	0.22		0.20	0.20
1,1-Dichloroethane	ND		0.20	0.20
Methyl Ethyl Ketone	3.0		0.50	0.50
cis-1,2-Dichloroethene	ND		0.20	0.20
1,2-Dichloroethene, Total	ND		0.20	0.20
Chloroform	ND		0.20	0.20
Tetrahydrofuran	ND		5.0	5.0
1,1,1-Trichloroethane	ND		0.20	0.20
Cyclohexane	ND		0.20	0.20
Carbon tetrachloride	ND		0.20	0.20
2,2,4-Trimethylpentane	ND		0.20	0.20
Benzene	0.21		0.20	0.20
1,2-Dichloroethane	ND		0.20	0.20
n-Heptane	ND		0.20	0.20
Trichloroethene	ND		0.20	0.20
Methyl methacrylate	ND		0.50	0.50
1,2-Dichloropropane	ND		0.20	0.20
1,4-Dioxane	ND		5.0	5.0
Bromodichloromethane	ND		0.20	0.20
cis-1,3-Dichloropropene	ND		0.20	0.20
methyl isobutyl ketone	ND		0.50	0.50
Toluene	1.3		0.20	0.20
trans-1,3-Dichloropropene	ND		0.20	0.20
1,1,2-Trichloroethane	ND		0.20	0.20
Tetrachloroethene	ND		0.20	0.20
Methyl Butyl Ketone (2-Hexanone)	ND		0.50	0.50
Dibromochloromethane	ND		0.20	0.20
1,2-Dibromoethane	ND		0.20	0.20
Chlorobenzene	ND		0.20	0.20
Ethylbenzene	ND		0.20	0.20
m,p-Xylene	ND		0.50	0.50
Xylene, o-	ND		0.20	0.20
Xylene (total)	ND		0.20	0.20
Styrene	ND		0.20	0.20
Bromoform	ND		0.20	0.20
Cumene	ND		0.20	0.20
1,1,2,2-Tetrachloroethane	ND		0.20	0.20
n-Propylbenzene	ND		0.20	0.20
4-Ethyltoluene	ND		0.20	0.20
1,3,5-Trimethylbenzene	ND		0.20	0.20
2-Chlorotoluene	ND		0.20	0.20

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** **SVI-3 (R)**Lab Sample ID: 480-42018-2  
Client Matrix: AirDate Sampled: 07/15/2013 1410  
Date Received: 07/15/2013 1600**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-59011	Instrument ID:	C.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	cltd20.d
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/26/2013 0309			Final Weight/Volume:	200 mL
Prep Date:	07/26/2013 0309			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
tert-Butylbenzene	ND		0.20	0.20
1,2,4-Trimethylbenzene	ND		0.20	0.20
sec-Butylbenzene	ND		0.20	0.20
4-Isopropyltoluene	ND		0.20	0.20
1,3-Dichlorobenzene	ND		0.20	0.20
1,4-Dichlorobenzene	ND		0.20	0.20
Benzyl chloride	ND		0.20	0.20
n-Butylbenzene	ND		0.20	0.20
1,2-Dichlorobenzene	ND		0.20	0.20
1,2,4-Trichlorobenzene	ND		0.50	0.50
Hexachlorobutadiene	ND		0.20	0.20
Naphthalene	ND		0.50	0.50

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** Ambient

Lab Sample ID: 480-41972-4

Date Sampled: 07/12/2013 0730

Client Matrix: Air

Date Received: 07/13/2013 1000

## TO15 LL Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analysis Method:	TO15 LL	Analysis Batch:	200-59245	Instrument ID:	E.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	efwc021.d
Dilution:	4.0			Initial Weight/Volume:	125 mL
Analysis Date:	08/01/2013 0514			Final Weight/Volume:	500 mL
Prep Date:	08/01/2013 0514			Injection Volume:	500 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	ND		0.040	0.040
1,1,2,2-Tetrachloroethane	ND		0.040	0.040
1,1,2-Trichloroethane	ND	*	0.040	0.040
1,1-Dichloroethane	ND		0.040	0.040
1,1-Dichloroethene	ND		0.040	0.040
1,2-Dibromoethane	ND		0.040	0.040
1,2-Dichloroethane	ND		0.080	0.080
1,2-Dichloroethene, Total	ND		0.040	0.040
1,2-Dichloropropane	ND		0.080	0.080
1,2-Dichlorotetrafluoroethane	ND		0.040	0.040
1,3,5-Trimethylbenzene	ND		0.080	0.080
1,3-Butadiene	ND		0.080	0.080
2,2,4-Trimethylpentane	0.096		0.040	0.040
3-Chloropropene	ND		0.080	0.080
4-Ethyltoluene	ND		0.040	0.040
Benzene	0.20		0.040	0.040
Bromodichloromethane	ND		0.040	0.040
Bromoethene(Vinyl Bromide)	ND		0.080	0.080
Bromoform	ND		0.040	0.040
Bromomethane	ND		0.080	0.080
Carbon tetrachloride	0.077		0.040	0.040
Chloroethane	ND		0.080	0.080
Chloroform	0.042		0.040	0.040
cis-1,2-Dichloroethene	ND		0.040	0.040
cis-1,3-Dichloropropene	ND	^	0.040	0.040
Cyclohexane	0.084		0.040	0.040
Dibromochloromethane	ND		0.040	0.040
Dichlorodifluoromethane	0.40		0.040	0.040
Ethylbenzene	0.061		0.040	0.040
Methyl tert-butyl ether	ND		0.040	0.040
Methylene Chloride	ND		0.40	0.40
m-Xylene & p-Xylene	0.18		0.080	0.080
n-Heptane	0.064		0.040	0.040
n-Hexane	0.19		0.080	0.080
o-Xylene	0.078		0.040	0.040
Tetrachloroethene	ND		0.040	0.040
Toluene	0.35		0.040	0.040
trans-1,2-Dichloroethene	ND		0.040	0.040
trans-1,3-Dichloropropene	ND		0.040	0.040
Trichloroethene	ND		0.040	0.040
Trichlorofluoromethane	0.16		0.040	0.040
Vinyl chloride	ND		0.080	0.080
Xylenes, Total	0.25		0.040	0.040

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	ND		0.22	0.22

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** AmbientLab Sample ID: 480-41972-4  
Client Matrix: AirDate Sampled: 07/12/2013 0730  
Date Received: 07/13/2013 1000**TO15 LL Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analysis Method:	TO15 LL	Analysis Batch:	200-59245	Instrument ID:	E.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	efwc021.d
Dilution:	4.0			Initial Weight/Volume:	125 mL
Analysis Date:	08/01/2013 0514			Final Weight/Volume:	500 mL
Prep Date:	08/01/2013 0514			Injection Volume:	500 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,2,2-Tetrachloroethane	ND		0.27	0.27
1,1,2-Trichloroethane	ND	*	0.22	0.22
1,1-Dichloroethane	ND		0.16	0.16
1,1-Dichloroethene	ND		0.16	0.16
1,2-Dibromoethane	ND		0.31	0.31
1,2-Dichloroethane	ND		0.32	0.32
1,2-Dichloroethene, Total	ND		0.16	0.16
1,2-Dichloropropane	ND		0.37	0.37
1,2-Dichlorotetrafluoroethane	ND		0.28	0.28
1,3,5-Trimethylbenzene	ND		0.39	0.39
1,3-Butadiene	ND		0.18	0.18
2,2,4-Trimethylpentane	0.45		0.19	0.19
3-Chloropropene	ND		0.25	0.25
4-Ethyltoluene	ND		0.20	0.20
Benzene	0.64		0.13	0.13
Bromodichloromethane	ND		0.27	0.27
Bromoethene(Vinyl Bromide)	ND		0.35	0.35
Bromoform	ND		0.41	0.41
Bromomethane	ND		0.31	0.31
Carbon tetrachloride	0.48		0.25	0.25
Chloroethane	ND		0.21	0.21
Chloroform	0.20		0.20	0.20
cis-1,2-Dichloroethene	ND		0.16	0.16
cis-1,3-Dichloropropene	ND	^	0.18	0.18
Cyclohexane	0.29		0.14	0.14
Dibromochloromethane	ND		0.34	0.34
Dichlorodifluoromethane	2.0		0.20	0.20
Ethylbenzene	0.26		0.17	0.17
Methyl tert-butyl ether	ND		0.14	0.14
Methylene Chloride	ND		1.4	1.4
m-Xylene & p-Xylene	0.77		0.35	0.35
n-Heptane	0.26		0.16	0.16
n-Hexane	0.69		0.28	0.28
o-Xylene	0.34		0.17	0.17
Tetrachloroethene	ND		0.27	0.27
Toluene	1.3		0.15	0.15
trans-1,2-Dichloroethene	ND		0.16	0.16
trans-1,3-Dichloropropene	ND		0.18	0.18
Trichloroethene	ND		0.21	0.21
Trichlorofluoromethane	0.91		0.22	0.22
Vinyl chloride	ND		0.20	0.20
Xylenes, Total	1.1		0.17	0.17

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** Duplicate

Lab Sample ID: 480-41972-5

Date Sampled: 07/12/2013 0735

Client Matrix: Air

Date Received: 07/13/2013 1000

## TO15 LL Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analysis Method:	TO15 LL	Analysis Batch:	200-59245	Instrument ID:	E.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	efwc022.d
Dilution:	4.0			Initial Weight/Volume:	125 mL
Analysis Date:	08/01/2013 0609			Final Weight/Volume:	500 mL
Prep Date:	08/01/2013 0609			Injection Volume:	500 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	ND		0.040	0.040
1,1,2,2-Tetrachloroethane	ND		0.040	0.040
1,1,2-Trichloroethane	ND	*	0.040	0.040
1,1-Dichloroethane	ND		0.040	0.040
1,1-Dichloroethene	ND		0.040	0.040
1,2-Dibromoethane	ND		0.040	0.040
1,2-Dichloroethane	ND		0.080	0.080
1,2-Dichloroethene, Total	ND		0.040	0.040
1,2-Dichloropropane	ND		0.080	0.080
1,2-Dichlorotetrafluoroethane	ND		0.040	0.040
1,3,5-Trimethylbenzene	ND		0.080	0.080
1,3-Butadiene	ND		0.080	0.080
2,2,4-Trimethylpentane	0.12		0.040	0.040
3-Chloropropene	ND		0.080	0.080
4-Ethyltoluene	ND		0.040	0.040
Benzene	0.27		0.040	0.040
Bromodichloromethane	ND		0.040	0.040
Bromoethene(Vinyl Bromide)	ND		0.080	0.080
Bromoform	ND		0.040	0.040
Bromomethane	ND		0.080	0.080
Carbon tetrachloride	0.078		0.040	0.040
Chloroethane	0.13		0.080	0.080
Chloroform	0.044		0.040	0.040
cis-1,2-Dichloroethene	ND		0.040	0.040
cis-1,3-Dichloropropene	ND	^	0.040	0.040
Cyclohexane	0.17		0.040	0.040
Dibromochloromethane	ND		0.040	0.040
Dichlorodifluoromethane	0.39		0.040	0.040
Ethylbenzene	0.080		0.040	0.040
Methyl tert-butyl ether	ND		0.040	0.040
Methylene Chloride	0.89		0.40	0.40
m-Xylene & p-Xylene	0.27		0.080	0.080
n-Heptane	0.19		0.040	0.040
n-Hexane	0.48		0.080	0.080
o-Xylene	0.10		0.040	0.040
Tetrachloroethene	ND		0.040	0.040
Toluene	0.70		0.040	0.040
trans-1,2-Dichloroethene	ND		0.040	0.040
trans-1,3-Dichloropropene	ND		0.040	0.040
Trichloroethene	0.073		0.040	0.040
Trichlorofluoromethane	0.18		0.040	0.040
Vinyl chloride	ND		0.080	0.080
Xylenes, Total	0.37		0.040	0.040

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	ND		0.22	0.22

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-41972-1

**Client Sample ID:** DuplicateLab Sample ID: 480-41972-5  
Client Matrix: AirDate Sampled: 07/12/2013 0735  
Date Received: 07/13/2013 1000**TO15 LL Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)**

Analysis Method:	TO15 LL	Analysis Batch:	200-59245	Instrument ID:	E.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	efwc022.d
Dilution:	4.0			Initial Weight/Volume:	125 mL
Analysis Date:	08/01/2013 0609			Final Weight/Volume:	500 mL
Prep Date:	08/01/2013 0609			Injection Volume:	500 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,2,2-Tetrachloroethane	ND		0.27	0.27
1,1,2-Trichloroethane	ND	*	0.22	0.22
1,1-Dichloroethane	ND		0.16	0.16
1,1-Dichloroethene	ND		0.16	0.16
1,2-Dibromoethane	ND		0.31	0.31
1,2-Dichloroethane	ND		0.32	0.32
1,2-Dichloroethene, Total	ND		0.16	0.16
1,2-Dichloropropane	ND		0.37	0.37
1,2-Dichlorotetrafluoroethane	ND		0.28	0.28
1,3,5-Trimethylbenzene	ND		0.39	0.39
1,3-Butadiene	ND		0.18	0.18
2,2,4-Trimethylpentane	0.55		0.19	0.19
3-Chloropropene	ND		0.25	0.25
4-Ethyltoluene	ND		0.20	0.20
Benzene	0.86		0.13	0.13
Bromodichloromethane	ND		0.27	0.27
Bromoethene(Vinyl Bromide)	ND		0.35	0.35
Bromoform	ND		0.41	0.41
Bromomethane	ND		0.31	0.31
Carbon tetrachloride	0.49		0.25	0.25
Chloroethane	0.34		0.21	0.21
Chloroform	0.22		0.20	0.20
cis-1,2-Dichloroethene	ND		0.16	0.16
cis-1,3-Dichloropropene	ND	^	0.18	0.18
Cyclohexane	0.57		0.14	0.14
Dibromochloromethane	ND		0.34	0.34
Dichlorodifluoromethane	1.9		0.20	0.20
Ethylbenzene	0.35		0.17	0.17
Methyl tert-butyl ether	ND		0.14	0.14
Methylene Chloride	3.1		1.4	1.4
m-Xylene & p-Xylene	1.2		0.35	0.35
n-Heptane	0.78		0.16	0.16
n-Hexane	1.7		0.28	0.28
o-Xylene	0.44		0.17	0.17
Tetrachloroethene	ND		0.27	0.27
Toluene	2.7		0.15	0.15
trans-1,2-Dichloroethene	ND		0.16	0.16
trans-1,3-Dichloropropene	ND		0.18	0.18
Trichloroethene	0.39		0.21	0.21
Trichlorofluoromethane	1.0		0.22	0.22
Vinyl chloride	ND		0.20	0.20
Xylenes, Total	1.6		0.17	0.17

## **Attachment 2**

### **October 4, 2013 Soil Vapor Intrusion Evaluation - Supplemental Soil and Groundwater Data Report**



AECOM  
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October 4, 2013

Mr. Glenn May  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

**Subject: Soil Vapor Intrusion Evaluation – Supplemental Soil and Groundwater Data Report**  
**Former Scott Aviation Facility Area 1 BCP Site**  
**NYSDEC Site Code No. C915233, Lancaster, New York**

Dear Mr. May:

On behalf of Tyco International (Tyco), AECOM Technical Services, Inc. (AECOM) is pleased to provide you with this letter-report summarizing the results of the groundwater and soil sampling program that was recently completed at the Brownfield Cleanup Program's (BCP) Former Scott Aviation Facility Area 1 Site (the Site). The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Site Code No. C915233 and is located west of AVOX Systems Inc. (AVOX) Plant 1 in Lancaster, New York.

The groundwater and soil investigation was completed along the northwestern edge of the AVOX property, adjacent to the residence at 205 Erie Street, which is located hydraulically downgradient of the Site's presumed volatile organic compound (VOC) groundwater plume. This work was conducted in an effort to collect additional data to supplement the results of the July 2013 limited-scope evaluation of the potential for soil vapor intrusion (SVI).

This letter-report discusses the project intent, field methodology, field and analytical results, findings, and conclusions.

## **Background**

The Site is characterized by a groundwater plume that is presumably impacted by chlorinated VOCs (CVOCs), which led to the July 2013 evaluation of the potential for SVI. The purpose of the SVI evaluation was to assess whether soil vapor in the vicinity of the residence at 205 Erie Street contained CVOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue for the nearby buildings (house and garage/shop). Freon-12 (SVI-3R) and TCE (SVI-1) were the only chlorinated Constituents of Potential Concern (COPCs) reported in soil vapor during the July 2013 SVI investigation, and the TCE detection specifically resulted in NYSDEC's request that sub-slab vapor and indoor air sampling be conducted at the residence.

For the purposes of this letter report, AECOM will focus on the following eight site-related CVOCs that should be considered as part of an SVI analysis for the residence: 1,1,1-trichloroethane; 1,1,2-trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene; chloroethane; cis-1,2-dichloroethane; trichloroethene; and vinyl chloride. These compounds, which have all been reported in Site groundwater, will be referred to as key CVOCs and will be reported as a total concentration.

The results of the July 2013 soil vapor sampling event identified TCE in SVI-1 at a fairly low concentration (6.2 µg/m<sup>3</sup>) but it was absent in SVI-3(R), collected closest to the Site's groundwater plume. No other key CVOC was detected in either soil vapor sample. The soil at SVI-2 was so tight that no soil vapor sample could be obtained.

Based on these results, Tyco authorized collection of soil and groundwater samples in the vicinity of the SVI sample locations, to further assess the presence of TCE and the remaining key CVOCs in other nearby media. The purpose of the additional sampling was to determine whether soil and groundwater in the vicinity of the residence contained key CVOCs at concentrations sufficiently elevated to represent a potential indoor air quality issue when all available data was considered collectively.

### Field Activities

On September 16, 2013, Matrix Environmental Technologies, Inc. (Matrix, Orchard Park, New York), under the direct supervision of an AECOM geologist, completed six soil borings and installed six temporary well points (a photograph log is provided as **Attachment 1**). Sampling locations are approximated on **Figure 1** and are briefly summarized in the following table:

Sample ID	Location
B-1	East of 205 Erie Street home; north of SVI-1
B-2	East of 205 Erie Street home/garage/shop; south of SVI-1
B-3	East of 205 Erie Street garage/shop; north of SVI-2
B-4	East of 205 Erie Street back yard; south of SVI-2
B-5	East of 205 Erie Street back yard; west of SVI-3
B-6	East of 205 Erie Street back yard; between SVI-3 and CB-1

Soil samples were collected during the completion of the six soil borings. Groundwater samples were collected on the next day (September 17, 2013) and on September 25, 2013, as further discussed below.

#### *Soil Boring and Sampling Methodology*

Soil borings were completed by Matrix on September 16, 2013, using direct-push techniques, to an approximate depth of 16 feet (ft) below ground surface (bgs) at location B-1 and 15 ft bgs at locations B-2 through B-6. Two-inch diameter, four-foot long Macro-Core® soil samples were continuously collected. Soil was characterized and screened both visually and with a MultiRae Model PGM-7240 photoionization detector (PID) for signs of impact (refer to **Attachment 2 – Soil Boring Logs**). No signs of impacted soil were observed; therefore, a soil sample was collected from the 10.5 to 11 ft bgs interval, immediately above the interpreted water table (~11 ft bgs).

Soil samples were collected using Terra Core soil sampling techniques (methanol preservation technique for low level VOC analysis). Samples were packaged and hand delivered to TestAmerica Laboratories, Inc. (Amherst, NY) under standard chain-of-custody procedures. All samples were analyzed for TCL VOCs using USEPA Method 8260B. A Category B deliverable package was requested for the data and included the following elements: analytical report; quality assurance/quality control summary; chain of custody; method blank; laboratory control samples – control limits; reporting limits; and, surrogate recoveries for gas chromatograph/mass spectrometer analysis with control limits.

### *Temporary Well Installation and Groundwater Sampling Methodology*

Once the desired depth was reached and the drive rod was retracted, a temporary Schedule 40 one-inch diameter PVC well point was installed at each location. A 5-foot (0.010 inch slotted) screen was installed at location B-1 at 10 to 15 ft bgs and 10-foot screens were installed at locations B-2 through B-6 at 5 to 15 ft bgs. A sand pack was installed to approximately one foot above the screen and the remainder of the annulus was filled with bentonite chips. Refer to **Attachment 3** for well construction logs.

The temporary well points were allowed to sit overnight. On September 17, 2013, AECOM returned to the Site to attempt to collect a groundwater grab sample from each location. Due to insufficient recharge (very tight soils), a groundwater sample was only able to be collected from location B-1 on September 17, 2013. This sample was collected using a peristaltic pump and dedicated polyethylene/silicon tubing. The sample was submitted along with a trip blank to the laboratory with the soil samples, as described previously.

AECOM returned to the Site on September 25, 2013 to attempt to collect groundwater grab samples from locations B-2 through B-6. Samples were successfully collected from each location and submitted along with a trip blank to the laboratory as described above.

### *Field Observations*

No petroleum or chemical odors were noted in soils recovered during the completion of the soil borings. In addition, all PID readings were at background during the screening of soils (i.e., 0.1 to 0.2 ppm). In general, shallow site soils consisted of approximately six inches of topsoil above reddish-brown silt with clay followed by pinkish gray to gray silty clay with trace fine to coarse sand. Shallow groundwater was observed at approximately 11 ft bgs.

### **Analytical Results**

A more detailed summary of contaminants in site groundwater and stormwater is provided in the Draft Alternatives Analysis Report (AAR) dated April 30, 2013. As indicated previously, this report will focus on key CVOCs.

According to the analytical results, no key CVOCs were reported in any of the soil or groundwater samples. Acetone was the only VOC reported in soil (12 µg/kg in B-5). Acetone was also reported in five of the six groundwater samples and in the trip blank. The only other VOC reported was 2-butanone in B-6 at 4.1 µg/L. The laboratory summary sheets are included as **Attachment 4**. The full analytical reports (Category B deliverable package) with QA/QC data are available upon request.

### **Findings/Discussion**

**Figure 1** presents the total key CVOC concentrations in soil, groundwater, stormwater, soil vapor, and ambient air based on data collected between 2010 and 2013. With the exception of the recent data, all data has been previously provided to NYSDEC. Groundwater samples with the "TP" prefix were collected within the storm sewer bedding.

As is shown in the figure, no key CVOCs, including TCE, were reported in soil or groundwater between contaminated location A1-GP07 and the structures at 205 Erie Street (a distance of 200 to 250 feet). Furthermore, no key CVOCs were reported in soil or groundwater between the residence and the storm sewer that flows alongside AVOX Plant 1 (a distance of approximately 100 feet).

No key CVOCs were reported in soil vapor sample SVI-3(R), which is located approximately 75 feet from both the storm sewer and the nearest groundwater sample with elevated key CVOCs. SV-1 is

further from these site features and the only key CVOC in sample SV-1 was TCE at 6.2 µg/m<sup>3</sup>. It is also relevant to mention the June 2010 sub-slab vapor sampling performed at AVOX Plant 1, since contaminants can be expected to behave similarly with the same subsurface soil and soil vapor conditions. Sample SS-3 exhibited a similarly low concentration of TCE at 4.3 µg/m<sup>3</sup>, but was located even closer to the storm sewer and groundwater source, which suggests that significant attenuation occurs in soil vapor in Area 1 within a fairly short distance. SS-3 was situated approximately 60 feet from A1-GP13 (5,270 µg/L key CVOCs) and 50 feet from CB-E (1,735 µg/L key CVOCs).

AECOM is also aware that the garage at 205 Erie Street is used to perform limited auto repair activities, and does not discount the possibility that the low level VOCs detected in SV-1 are related to those maintenance operations rather than the Area 1 impacts.

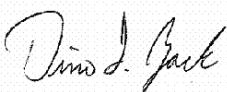
## Conclusions

Based on the information collected, AECOM provides the following conclusions:

- In September 2013, six soil borings were advanced 15 to 16 ft bgs to assess soil and groundwater conditions along the property boundary between AVOX Area 1 and the residence at 205 Erie Street. Site soils are comprised of silt and clay; consistent with elsewhere in Area 1. One soil sample was collected from each boring. Groundwater was observed at approximately 11 feet below grade, and one grab groundwater sample was collected from each boring. No key CVOCs were reported in any of the samples.
- AECOM reviewed historical soil, groundwater, soil vapor, and stormwater data from the northern portion of the Area 1 Site to assess the potential relationship between the low level TCE concentration reported in SV-1 in July 2013 and the Area 1 contamination. The collective data does not identify a clear relationship between the two that would warrant further SVI sampling at the residential property. Multiple media have been evaluated. The property boundary between AVOX and 205 Erie Street appears to not be impacted by the BCP Site.

If you have any questions regarding this submission, please do not hesitate to contact me at (716) 836-4506 ext. 15 or via email.

Yours sincerely,



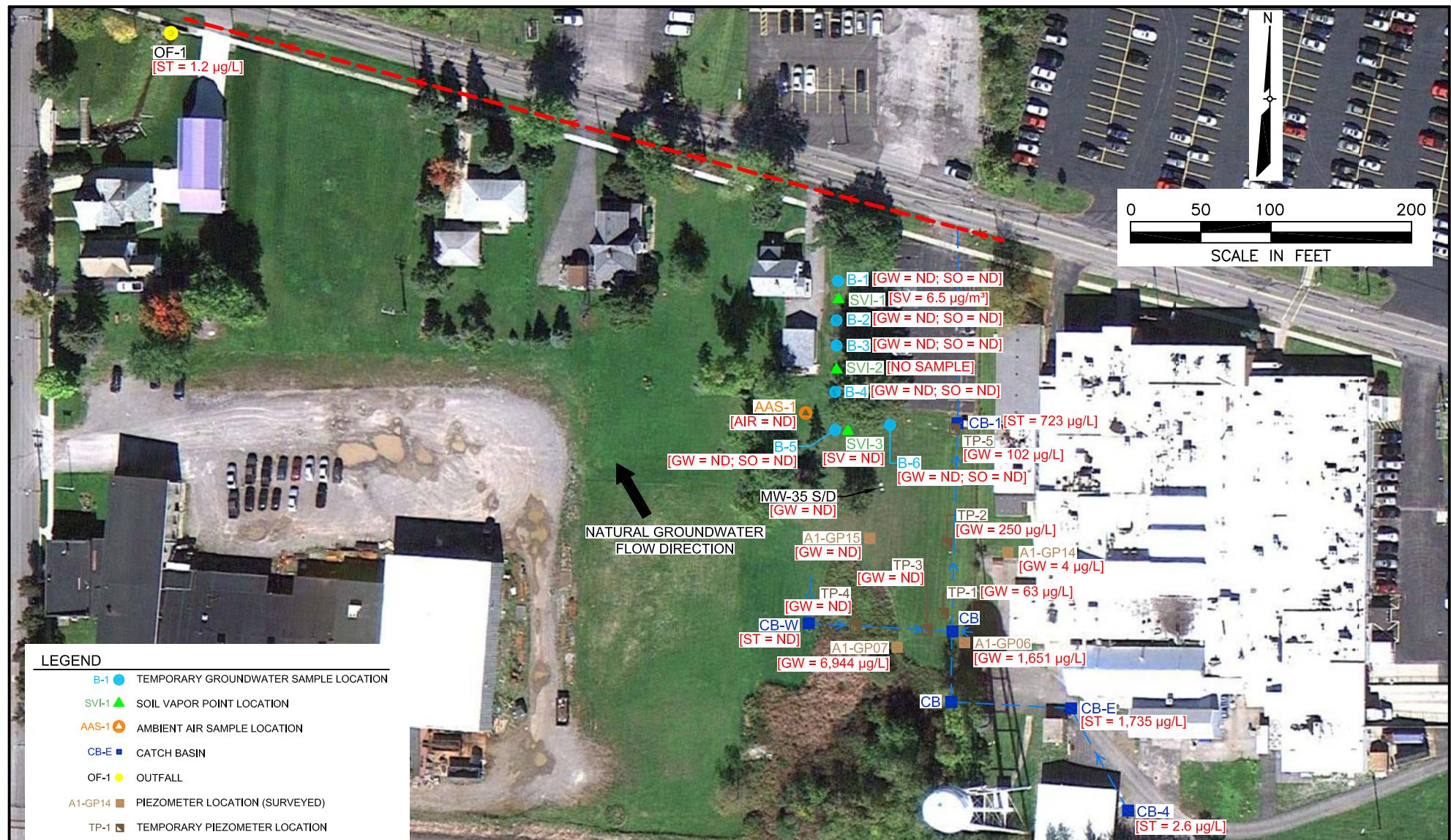
Dino L. Zack, P.G.  
Project Manager  
dino.zack@aecom.com

Enclosures

Cc: Gregory Sutton (NYSDEC) – electronic copy  
Deanna Ripstein (NYSDOH) – electronic copy  
Stuart Rixman (Tyco International) – electronic copy  
Joseph Janeczek (Tyco International) – electronic copy  
Jennifer Davide (AVOX Systems Inc.) – electronic copy  
AECOM Project File – electronic copy



**FIGURE**



**AECOM**

**FIGURE 1**  
**TOTAL KEY CHLORINATED VOCs IN ALL MEDIA AREA 1 NORTH**

FORMER SCOTT AVIATION FACILITY BCP SITE  
LANCASTER, NEW YORK



## **ATTACHMENT 1**

### **Photograph Log**

**AECOM Technical Services, Inc.****PHOTOGRAPH LOG**

<b>Client Name:</b> Tyco International		<b>Site Location:</b> Former Scott Aviation BCP Site, Lancaster, New York	AECOM Project #60155991
<b>Photo No.</b> <b>1</b>	<b>Date:</b> 9/16/13		
<b>Direction Photo Taken:</b>			Northwest
<b>Description:</b> Matrix (AECOM subcontractor) completing boring at location B-2. Note SVI-1 and B-1 to the north (right in photo).			

<b>Photo No.</b> <b>2</b>	<b>Date:</b> 9/16/13	
<b>Direction Photo Taken:</b>		North
<b>Description:</b> Line of borings (white PVC stickups) between AVOX Systems Inc. property and residence to the west. Note SVI-3 in foreground.		

<b>Photo No.</b> <b>3</b>	<b>Date:</b> 9/16/13	
<b>Direction Photo Taken:</b>  West		

<b>Photo No.</b> <b>4</b>	<b>Date:</b> 9/16/13	
<b>Direction Photo Taken:</b>  North		

<b>Photo No.</b> <b>5</b>	<b>Date:</b> 9/16/13	
<b>Direction Photo Taken:</b>		
North		
<b>Description:</b> Typical 8-12' bgs soil profile (clay with trace silt and fine sand)		

<b>Photo No.</b> <b>6</b>	<b>Date:</b> 9/16/13	
<b>Direction Photo Taken:</b>		
North		
<b>Description:</b> Typical color gradation from brown to gray with increasing moisture content (approximately at 9' bgs).		



## **ATTACHMENT 2**

### **Soil Boring Logs**









Client: Tyco International							BORING ID: B-4					
Project Number: 60155991-3		Site Location: Former Scott Aviation Facility BCP		Boring Location: West side of property								
Drilling Method: Geoprobe		Sample Type(s): Macrocore			Boring Diameter: 2"		Sheet: 1 of 1					
Weather: 60 degrees F, overcast, rain				Logged By: TR		Date/Time Started: 9/16/13 11:25		Monitoring Well Installed: Temp				
Drilling Contractor: Matrix				Ground Elevation: ~688		Date/Time Finished: 9/16/13 12:00		Screened Interval: 5-15' bgs				
				Depth of Boring: 15' bgs								
Depth (ft)	Geologic sample ID	Sample Depth (ft)	Blows per 6"	Recovery (feet)	Headspace (ppm)	U.S.C.S	MATERIALS: Color, size, range, MAIN COMPONENT, minor component(s), moisture content, structure, angularity, maximum grain size, odor, and Geologic Unit (If Known)			Lab Sample ID	Lab Sample Depth (ft)	
1		0-4	NA	3.7	0.1		0-0.5' Brown TOPSOIL, rootlets throughout, dry/moist. 0.5-3.8' Tan SILT with gray/black/orange mottles, trace Clay, fine Sand, Organics (rootlets), dry/moist, crumbles.					
2												
3												
4												
5												
6		4-8	NA	4.0	0.1		4.0-8.0' Same as above with increasing clay content. Very fine sand lense at 7.5' (~1-inch thick).					
7												
8												
9												
10		8-12	NA	4.0	0.1		8.0-12.0' Brownish gray CLAY, trace fine Sand and Silt, moist. Water table at ~11'.					
11												
12												
13		12-15	NA	3.0	0.1		12.0-15.0' Same as above, grading to grayish brown.					
14												
15												
16												
17												
18												
19												
20												
NOTES:										Date	Time	Depth to groundwater while drilling
Soil sample collected @10.5-11' for laboratory analysis of: TCL list OLM04.2 VOCs (8260)												
GW sample collected on 9/25/13 for analysis of: TCL list OLM04.2 VOCs (8260)												
Checked by DLZ Date: 10/3/2013												





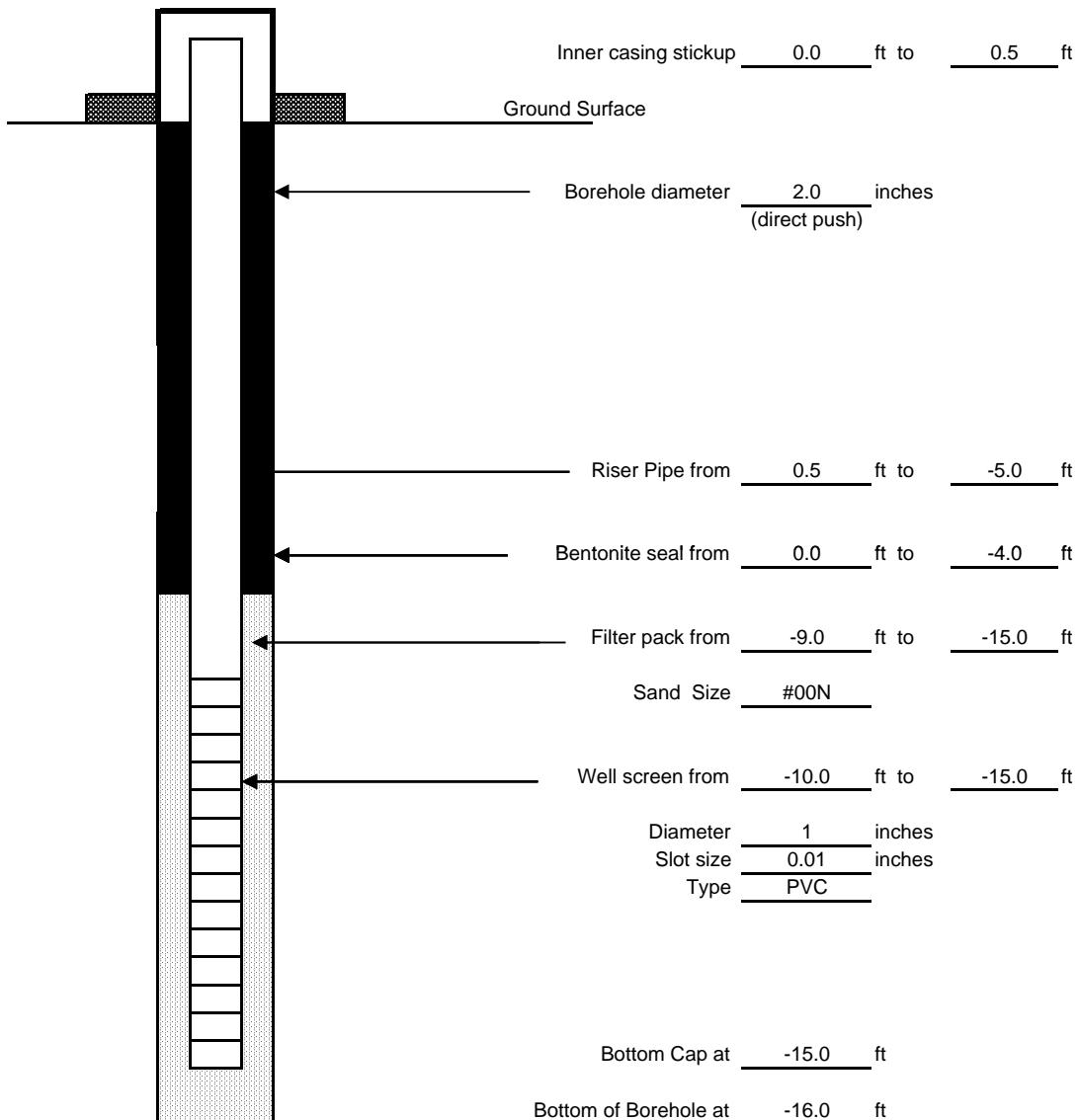


## **ATTACHMENT 3**

### **Well Construction Logs**

**Overburden Well Diagram**
**Well No. B-1**

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.10
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		13.80

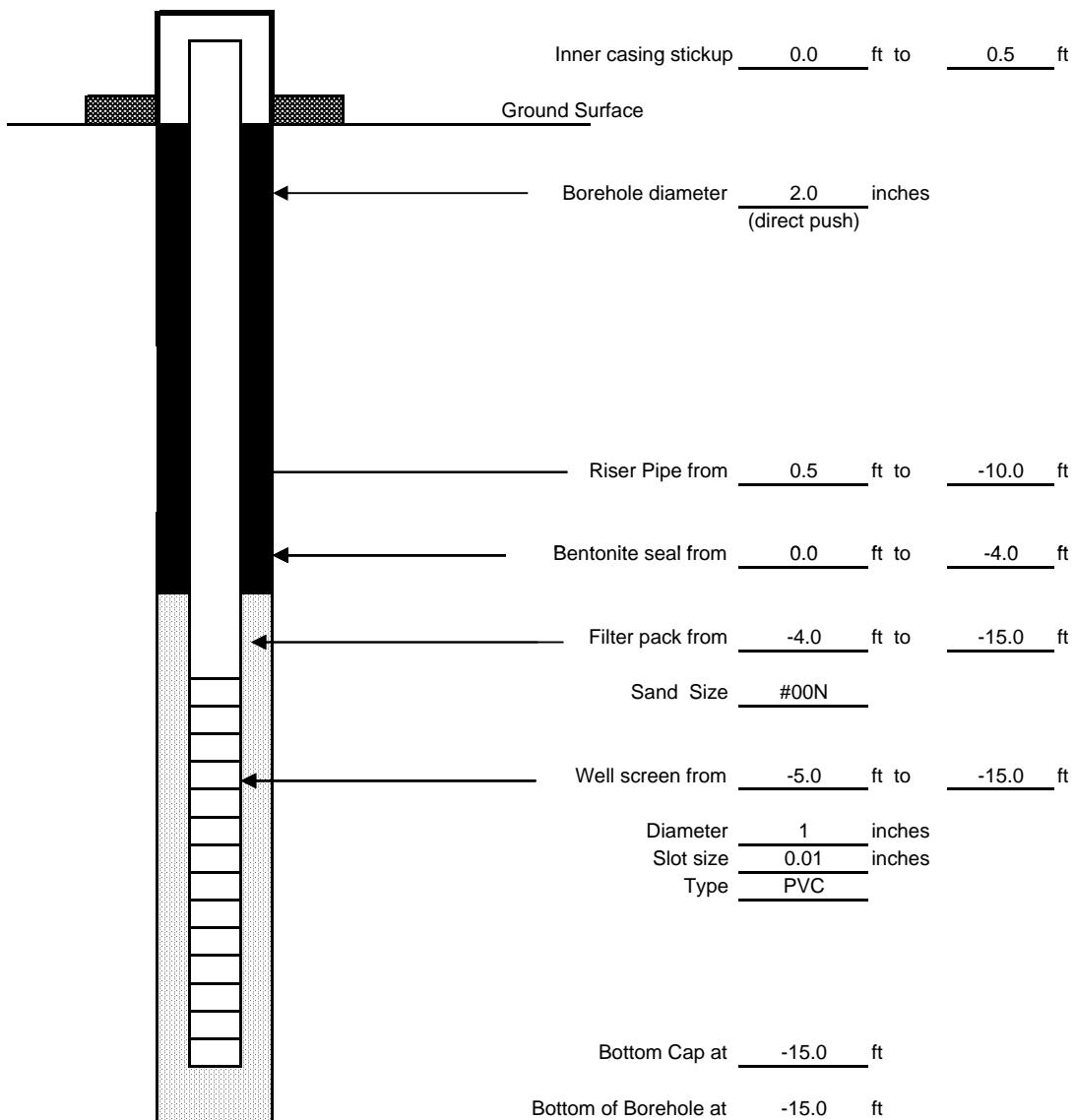


Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

**Overburden Well Diagram**
**Well No. B-2**

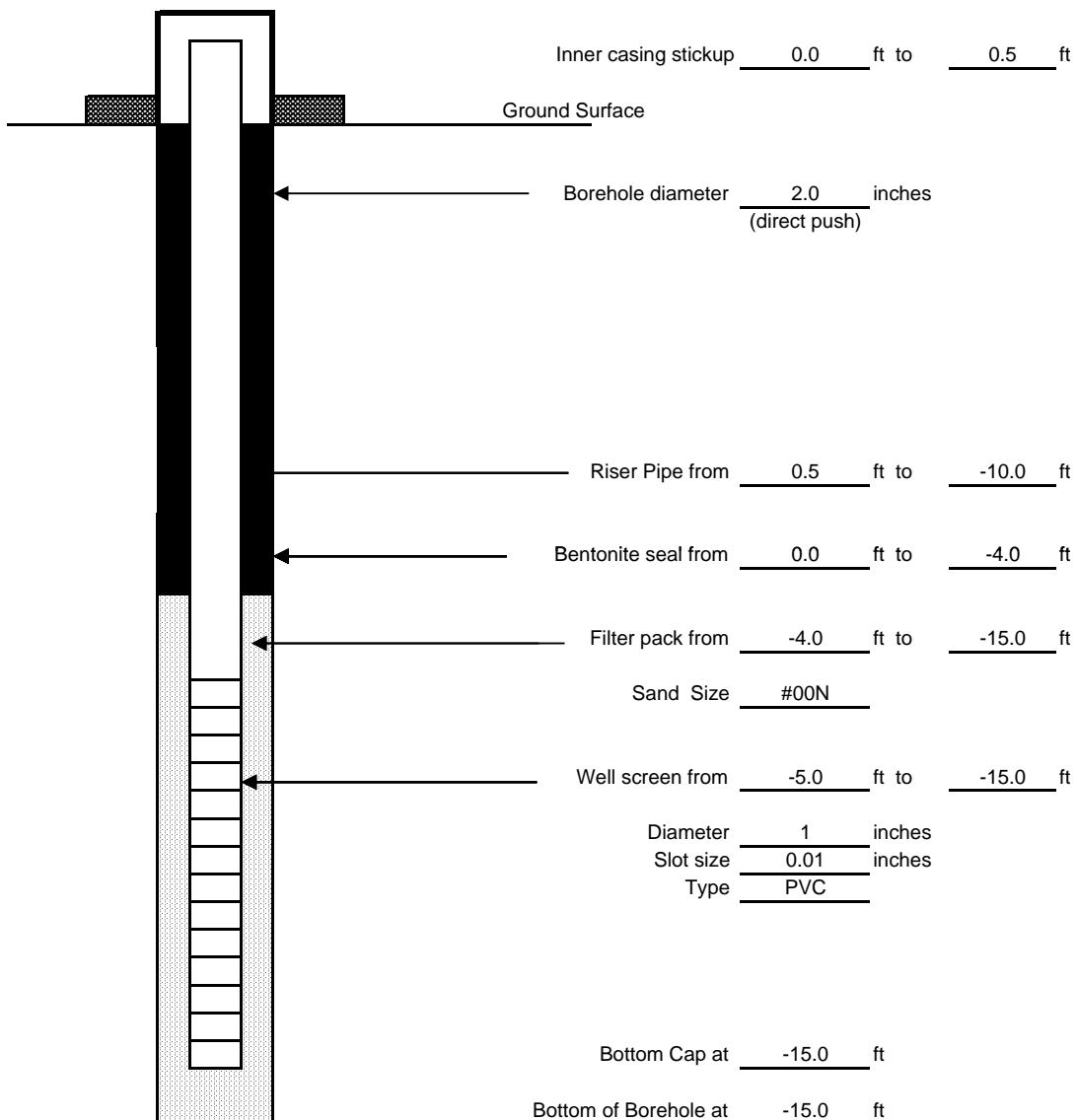
Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.50
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		13.80



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

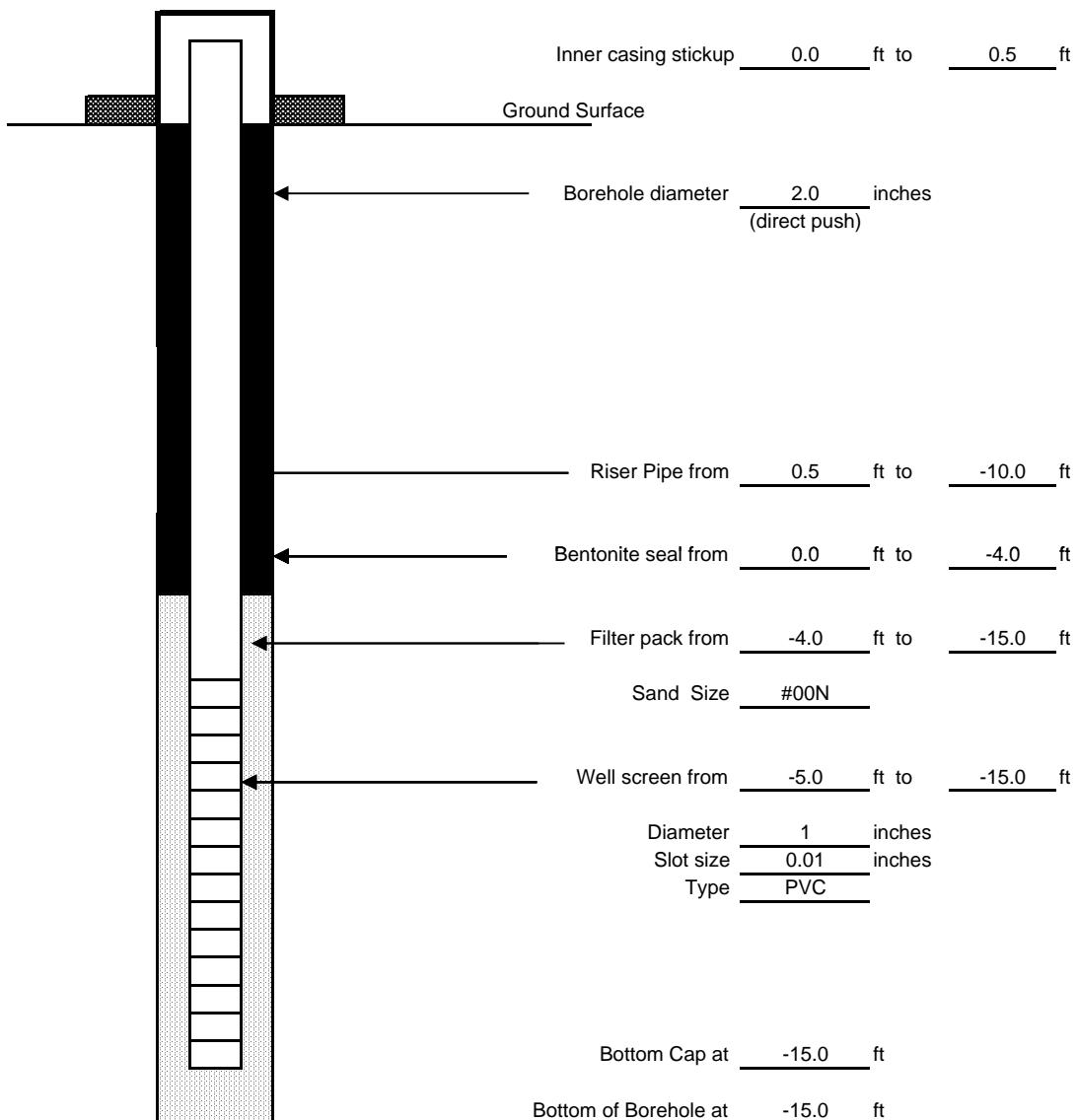
Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.40
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		10.65



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

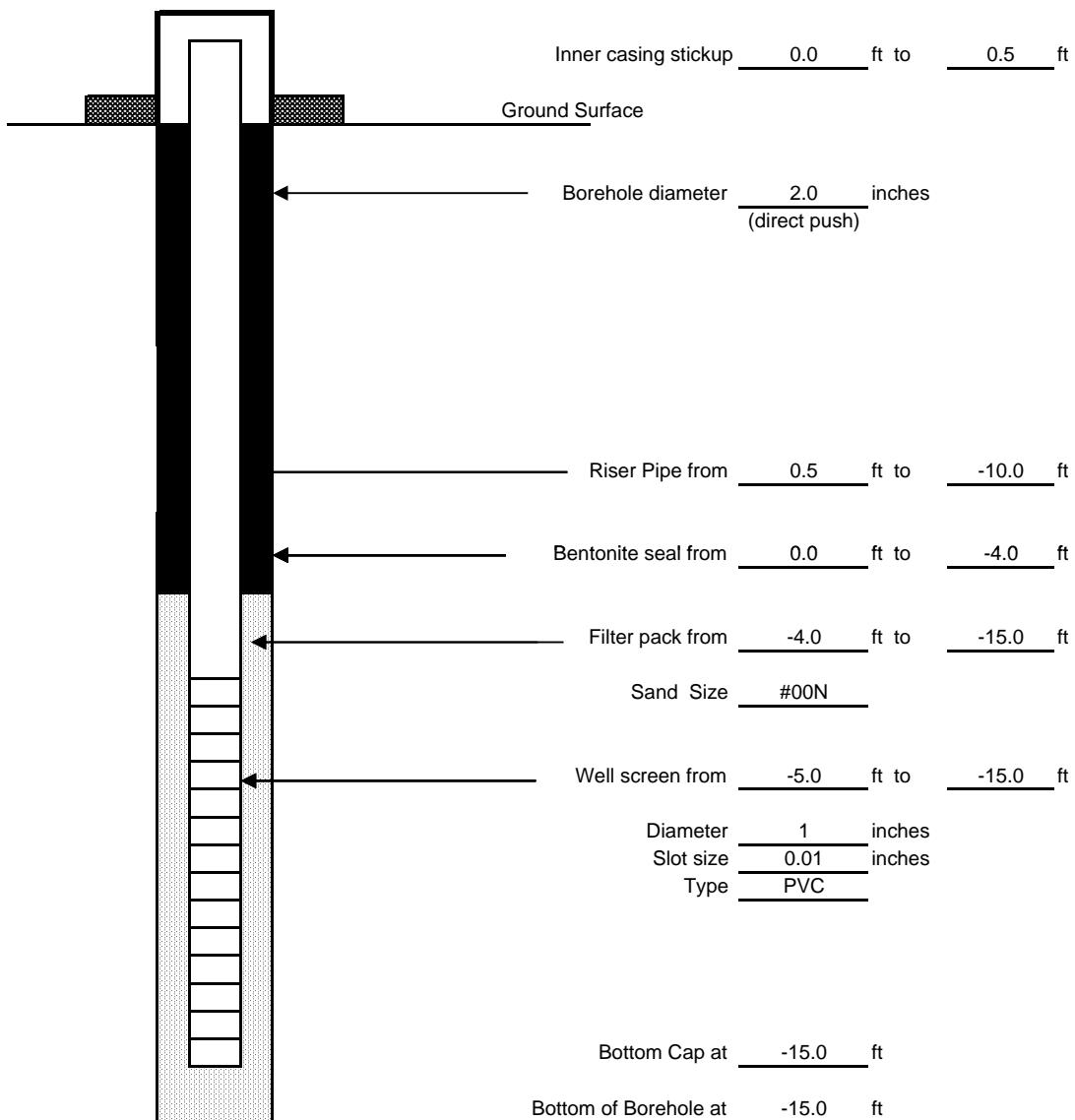
Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.30
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		13.15



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

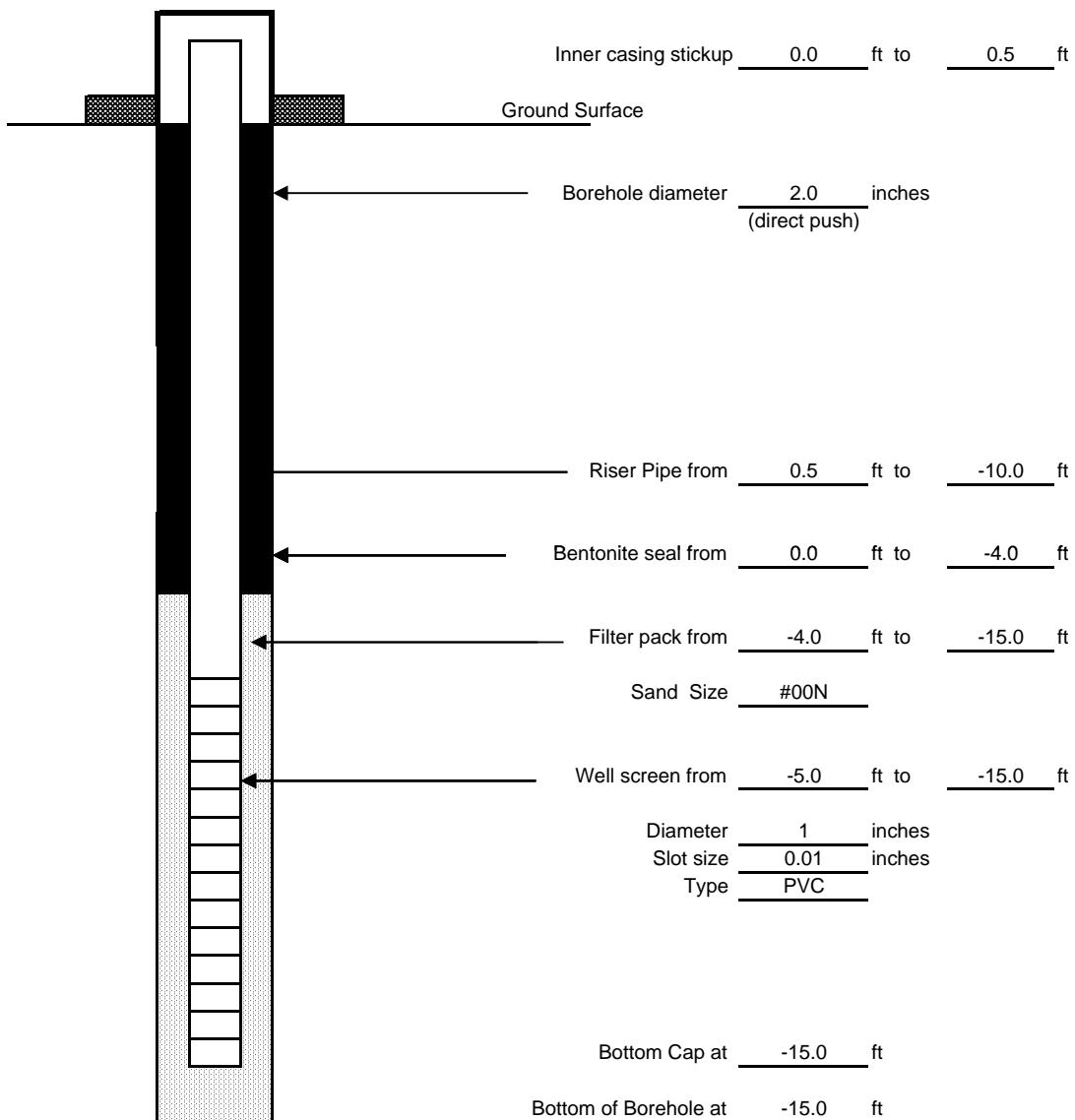
Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.50
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		14.10



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)

Project: Former Scott Aviation Facility BCP	Location: Lancaster, NY	Page 1 of 1		
AECOM Project No.: 60155991	Subcontractor: Matrix	Water Levels		
Surface Elevation: ~688 ft AMSL	Driller: Mark Janus	Date	Time	Depth
Top of PVC Casing Elevation: ~688.5 ft AMSL	Well Permit No.: NA AECOM Rep.: Tamara Raby	9/17/13		14.30
Datum: NGVD 1988	Date of Completion: 9/16/2013	9/25/13		13.95



Note: All measurements based on ground surface at 0.0 feet. (+) above grade. (-) below grade.

(NOT TO SCALE)



## **ATTACHMENT 4**

**Analytical Laboratory Summary Sheets  
(Full data reports available upon request)**

## ANALYTICAL REPORT

Job Number: 480-45961-1

Job Description: Tyco Int'l Facility-BCP(AECOM# 60155991)

For:  
AECOM, Inc.  
100 Corporate Parkway  
Suite 341  
Amherst, NY 14226

Attention: Mr. Dino Zack



Approved for release.  
Brian J Fischer  
Project Manager II  
9/30/2013 6:00 PM

Brian J Fischer, Project Manager II  
10 Hazelwood Drive, Amherst, NY, 14228-2298  
(716)504-9835  
[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)  
09/30/2013

cc: Ms. Helen Jones

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

**TestAmerica Laboratories, Inc.**

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298

Tel (716) 691-2600 Fax (716) 691-7991 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative  
480-45961-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 9/17/2013 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.9° C and 4.3° C.

**GC/MS VOA**

Method(s) 8260B: The following volatiles sample(s) was diluted due to foaming at the time of purging during the original sample analysis: B-1 GW 09172013 (480-45961-8). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

## SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-45961-1	B-1 (10.5-11)	Solid	09/16/2013 0900	09/17/2013 1620
480-45961-2	B-2 (10.5-11)	Solid	09/16/2013 0930	09/17/2013 1620
480-45961-3	B-3 (10.5-11)	Solid	09/16/2013 1030	09/17/2013 1620
480-45961-4	B-4 (10.5-11)	Solid	09/16/2013 1140	09/17/2013 1620
480-45961-5	B-5 (10.5-11)	Solid	09/16/2013 1215	09/17/2013 1620
480-45961-6	B-6 (10.5-11)	Solid	09/16/2013 1300	09/17/2013 1620
480-45961-7	TRIP BLANK	Water	09/16/2013 0000	09/17/2013 1620
480-45961-8	B-1 GW 09172013	Water	09/17/2013 1315	09/17/2013 1620

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 480-45961-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>480-45961-1</b>	<b>B-1 (10.5-11)</b>					
Percent Moisture		15		0.10	%	Moisture
Percent Solids		85		0.10	%	Moisture
<b>480-45961-2</b>	<b>B-2 (10.5-11)</b>					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
<b>480-45961-3</b>	<b>B-3 (10.5-11)</b>					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
<b>480-45961-4</b>	<b>B-4 (10.5-11)</b>					
Percent Moisture		17		0.10	%	Moisture
Percent Solids		83		0.10	%	Moisture
<b>480-45961-5</b>	<b>B-5 (10.5-11)</b>		J	22	ug/Kg	8260B
Acetone		12	J	22	ug/Kg	8260B
Percent Moisture		18		0.10	%	Moisture
Percent Solids		82		0.10	%	Moisture
<b>480-45961-6</b>	<b>B-6 (10.5-11)</b>					
Percent Moisture		18		0.10	%	Moisture
Percent Solids		82		0.10	%	Moisture

## METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds (GC/MS) Closed System Purge and Trap	TAL BUF	SW846 8260B	
Percent Moisture	TAL BUF	EPA Moisture	
<b>Matrix: Water</b>			
Volatile Organic Compounds (GC/MS) Purge and Trap	TAL BUF TAL BUF	SW846 8260B SW846 5030B	

**Lab References:**

TAL BUF = TestAmerica Buffalo

**Method References:**

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 480-45961-1

Method	Analyst	Analyst ID
SW846 8260B	Brandt, Todd R	TRB
SW846 8260B	Quirk, Patrick J	PJQ
EPA Moisture	Cwiklinski, Charles D	CDC

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-1 (10.5-11)

Lab Sample ID: 480-45961-1  
 Client Matrix: Solid

% Moisture: 15.0

Date Sampled: 09/16/2013 0900  
 Date Received: 09/17/2013 1620

## 8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1426.D
Dilution:	1.0			Initial Weight/Volume:	7.2 g
Analysis Date:	09/19/2013 0154			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.30	4.1
1,1,2,2-Tetrachloroethane		ND		0.66	4.1
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.93	4.1
1,1,2-Trichloroethane		ND		0.53	4.1
1,1-Dichloroethane		ND		0.50	4.1
1,1-Dichloroethene		ND		0.50	4.1
1,2,4-Trichlorobenzene		ND		0.25	4.1
1,2-Dibromo-3-Chloropropane		ND		2.0	4.1
1,2-Dibromoethane		ND		0.52	4.1
1,2-Dichlorobenzene		ND		0.32	4.1
1,2-Dichloroethane		ND		0.21	4.1
1,2-Dichloropropane		ND		2.0	4.1
1,3-Dichlorobenzene		ND		0.21	4.1
1,4-Dichlorobenzene		ND		0.57	4.1
2-Butanone (MEK)		ND		1.5	20
2-Hexanone		ND		2.0	20
4-Methyl-2-pentanone (MIBK)		ND		1.3	20
Acetone		ND		3.4	20
Benzene		ND		0.20	4.1
Bromodichloromethane		ND		0.55	4.1
Bromoform		ND		2.0	4.1
Bromomethane		ND		0.37	4.1
Carbon disulfide		ND		2.0	4.1
Carbon tetrachloride		ND		0.40	4.1
Chlorobenzene		ND		0.54	4.1
Chloroethane		ND		0.92	4.1
Chloroform		ND		0.25	4.1
Chloromethane		ND		0.25	4.1
cis-1,2-Dichloroethene		ND		0.52	4.1
cis-1,3-Dichloropropene		ND		0.59	4.1
Cyclohexane		ND		0.57	4.1
Dibromochloromethane		ND		0.52	4.1
Dichlorodifluoromethane		ND		0.34	4.1
Ethylbenzene		ND		0.28	4.1
Isopropylbenzene		ND		0.62	4.1
Methyl acetate		ND		0.76	4.1
Methyl tert-butyl ether		ND		0.40	4.1
Methylcyclohexane		ND		0.62	4.1
Methylene Chloride		ND		1.9	4.1
Styrene		ND		0.20	4.1
Tetrachloroethene		ND		0.55	4.1
Toluene		ND		0.31	4.1
trans-1,2-Dichloroethene		ND		0.42	4.1
trans-1,3-Dichloropropene		ND		1.8	4.1
Trichloroethene		ND		0.90	4.1
Trichlorofluoromethane		ND		0.39	4.1

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-1 (10.5-11)Lab Sample ID: 480-45961-1  
Client Matrix: Solid

% Moisture: 15.0

Date Sampled: 09/16/2013 0900  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1426.D
Dilution:	1.0			Initial Weight/Volume:	7.2 g
Analysis Date:	09/19/2013 0154			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.50	4.1
Xylenes, Total		ND		0.69	8.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		64 - 126
4-Bromofluorobenzene (Surr)	104		72 - 126
Toluene-d8 (Surr)	103		71 - 125

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-2 (10.5-11)

Lab Sample ID: 480-45961-2  
 Client Matrix: Solid

% Moisture: 16.6

Date Sampled: 09/16/2013 0930  
 Date Received: 09/17/2013 1620

## 8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1427.D
Dilution:	1.0			Initial Weight/Volume:	6.54 g
Analysis Date:	09/19/2013 0220			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.33	4.6
1,1,2,2-Tetrachloroethane		ND		0.74	4.6
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.6
1,1,2-Trichloroethane		ND		0.60	4.6
1,1-Dichloroethane		ND		0.56	4.6
1,1-Dichloroethene		ND		0.56	4.6
1,2,4-Trichlorobenzene		ND		0.28	4.6
1,2-Dibromo-3-Chloropropane		ND		2.3	4.6
1,2-Dibromoethane		ND		0.59	4.6
1,2-Dichlorobenzene		ND		0.36	4.6
1,2-Dichloroethane		ND		0.23	4.6
1,2-Dichloropropane		ND		2.3	4.6
1,3-Dichlorobenzene		ND		0.24	4.6
1,4-Dichlorobenzene		ND		0.64	4.6
2-Butanone (MEK)		ND		1.7	23
2-Hexanone		ND		2.3	23
4-Methyl-2-pentanone (MIBK)		ND		1.5	23
Acetone		ND		3.9	23
Benzene		ND		0.22	4.6
Bromodichloromethane		ND		0.61	4.6
Bromoform		ND		2.3	4.6
Bromomethane		ND		0.41	4.6
Carbon disulfide		ND		2.3	4.6
Carbon tetrachloride		ND		0.44	4.6
Chlorobenzene		ND		0.61	4.6
Chloroethane		ND		1.0	4.6
Chloroform		ND		0.28	4.6
Chloromethane		ND		0.28	4.6
cis-1,2-Dichloroethene		ND		0.59	4.6
cis-1,3-Dichloropropene		ND		0.66	4.6
Cyclohexane		ND		0.64	4.6
Dibromochloromethane		ND		0.59	4.6
Dichlorodifluoromethane		ND		0.38	4.6
Ethylbenzene		ND		0.32	4.6
Isopropylbenzene		ND		0.69	4.6
Methyl acetate		ND		0.85	4.6
Methyl tert-butyl ether		ND		0.45	4.6
Methylcyclohexane		ND		0.70	4.6
Methylene Chloride		ND		2.1	4.6
Styrene		ND		0.23	4.6
Tetrachloroethene		ND		0.62	4.6
Toluene		ND		0.35	4.6
trans-1,2-Dichloroethene		ND		0.47	4.6
trans-1,3-Dichloropropene		ND		2.0	4.6
Trichloroethene		ND		1.0	4.6
Trichlorofluoromethane		ND		0.43	4.6

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-2 (10.5-11)Lab Sample ID: 480-45961-2  
Client Matrix: Solid

% Moisture: 16.6

Date Sampled: 09/16/2013 0930  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1427.D
Dilution:	1.0			Initial Weight/Volume:	6.54 g
Analysis Date:	09/19/2013 0220			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.56	4.6
Xylenes, Total		ND		0.77	9.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	100		72 - 126
Toluene-d8 (Surr)	99		71 - 125

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-3 (10.5-11)Lab Sample ID: 480-45961-3  
Client Matrix: Solid

% Moisture: 17.0

Date Sampled: 09/16/2013 1030  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1428.D
Dilution:	1.0			Initial Weight/Volume:	6.91 g
Analysis Date:	09/19/2013 0245			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.4
1,1,2,2-Tetrachloroethane		ND		0.71	4.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.99	4.4
1,1,2-Trichloroethane		ND		0.57	4.4
1,1-Dichloroethane		ND		0.53	4.4
1,1-Dichloroethene		ND		0.53	4.4
1,2,4-Trichlorobenzene		ND		0.26	4.4
1,2-Dibromo-3-Chloropropane		ND		2.2	4.4
1,2-Dibromoethane		ND		0.56	4.4
1,2-Dichlorobenzene		ND		0.34	4.4
1,2-Dichloroethane		ND		0.22	4.4
1,2-Dichloropropane		ND		2.2	4.4
1,3-Dichlorobenzene		ND		0.22	4.4
1,4-Dichlorobenzene		ND		0.61	4.4
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.4	22
Acetone		ND		3.7	22
Benzene		ND		0.21	4.4
Bromodichloromethane		ND		0.58	4.4
Bromoform		ND		2.2	4.4
Bromomethane		ND		0.39	4.4
Carbon disulfide		ND		2.2	4.4
Carbon tetrachloride		ND		0.42	4.4
Chlorobenzene		ND		0.58	4.4
Chloroethane		ND		0.98	4.4
Chloroform		ND		0.27	4.4
Chloromethane		ND		0.26	4.4
cis-1,2-Dichloroethene		ND		0.56	4.4
cis-1,3-Dichloropropene		ND		0.63	4.4
Cyclohexane		ND		0.61	4.4
Dibromochloromethane		ND		0.56	4.4
Dichlorodifluoromethane		ND		0.36	4.4
Ethylbenzene		ND		0.30	4.4
Isopropylbenzene		ND		0.66	4.4
Methyl acetate		ND		0.81	4.4
Methyl tert-butyl ether		ND		0.43	4.4
Methylcyclohexane		ND		0.66	4.4
Methylene Chloride		ND		2.0	4.4
Styrene		ND		0.22	4.4
Tetrachloroethene		ND		0.58	4.4
Toluene		ND		0.33	4.4
trans-1,2-Dichloroethene		ND		0.45	4.4
trans-1,3-Dichloropropene		ND		1.9	4.4
Trichloroethene		ND		0.96	4.4
Trichlorofluoromethane		ND		0.41	4.4

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-3 (10.5-11)Lab Sample ID: 480-45961-3  
Client Matrix: Solid

% Moisture: 17.0

Date Sampled: 09/16/2013 1030  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1428.D
Dilution:	1.0			Initial Weight/Volume:	6.91 g
Analysis Date:	09/19/2013 0245			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.53	4.4
Xylenes, Total		ND		0.73	8.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		64 - 126
4-Bromofluorobenzene (Surr)	102		72 - 126
Toluene-d8 (Surr)	101		71 - 125

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-4 (10.5-11)Lab Sample ID: 480-45961-4  
Client Matrix: Solid

% Moisture: 16.8

Date Sampled: 09/16/2013 1140  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1429.D
Dilution:	1.0			Initial Weight/Volume:	7.81 g
Analysis Date:	09/19/2013 0311			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.28	3.8
1,1,2,2-Tetrachloroethane		ND		0.62	3.8
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.88	3.8
1,1,2-Trichloroethane		ND		0.50	3.8
1,1-Dichloroethane		ND		0.47	3.8
1,1-Dichloroethene		ND		0.47	3.8
1,2,4-Trichlorobenzene		ND		0.23	3.8
1,2-Dibromo-3-Chloropropane		ND		1.9	3.8
1,2-Dibromoethane		ND		0.49	3.8
1,2-Dichlorobenzene		ND		0.30	3.8
1,2-Dichloroethane		ND		0.19	3.8
1,2-Dichloropropane		ND		1.9	3.8
1,3-Dichlorobenzene		ND		0.20	3.8
1,4-Dichlorobenzene		ND		0.54	3.8
2-Butanone (MEK)		ND		1.4	19
2-Hexanone		ND		1.9	19
4-Methyl-2-pentanone (MIBK)		ND		1.3	19
Acetone		ND		3.2	19
Benzene		ND		0.19	3.8
Bromodichloromethane		ND		0.52	3.8
Bromoform		ND		1.9	3.8
Bromomethane		ND		0.35	3.8
Carbon disulfide		ND		1.9	3.8
Carbon tetrachloride		ND		0.37	3.8
Chlorobenzene		ND		0.51	3.8
Chloroethane		ND		0.87	3.8
Chloroform		ND		0.24	3.8
Chloromethane		ND		0.23	3.8
cis-1,2-Dichloroethene		ND		0.49	3.8
cis-1,3-Dichloropropene		ND		0.55	3.8
Cyclohexane		ND		0.54	3.8
Dibromochloromethane		ND		0.49	3.8
Dichlorodifluoromethane		ND		0.32	3.8
Ethylbenzene		ND		0.27	3.8
Isopropylbenzene		ND		0.58	3.8
Methyl acetate		ND		0.72	3.8
Methyl tert-butyl ether		ND		0.38	3.8
Methylcyclohexane		ND		0.59	3.8
Methylene Chloride		ND		1.8	3.8
Styrene		ND		0.19	3.8
Tetrachloroethene		ND		0.52	3.8
Toluene		ND		0.29	3.8
trans-1,2-Dichloroethene		ND		0.40	3.8
trans-1,3-Dichloropropene		ND		1.7	3.8
Trichloroethene		ND		0.85	3.8
Trichlorofluoromethane		ND		0.36	3.8

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-4 (10.5-11)Lab Sample ID: 480-45961-4  
Client Matrix: Solid

% Moisture: 16.8

Date Sampled: 09/16/2013 1140  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1429.D
Dilution:	1.0			Initial Weight/Volume:	7.81 g
Analysis Date:	09/19/2013 0311			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.47	3.8
Xylenes, Total		ND		0.65	7.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	99		72 - 126
Toluene-d8 (Surr)	101		71 - 125

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-5 (10.5-11)Lab Sample ID: 480-45961-5  
Client Matrix: Solid

% Moisture: 18.4

Date Sampled: 09/16/2013 1215  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1430.D
Dilution:	1.0			Initial Weight/Volume:	6.9 g
Analysis Date:	09/19/2013 0337			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.4
1,1,2,2-Tetrachloroethane		ND		0.72	4.4
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		1.0	4.4
1,1,2-Trichloroethane		ND		0.58	4.4
1,1-Dichloroethane		ND		0.54	4.4
1,1-Dichloroethene		ND		0.54	4.4
1,2,4-Trichlorobenzene		ND		0.27	4.4
1,2-Dibromo-3-Chloropropane		ND		2.2	4.4
1,2-Dibromoethane		ND		0.57	4.4
1,2-Dichlorobenzene		ND		0.35	4.4
1,2-Dichloroethane		ND		0.22	4.4
1,2-Dichloropropane		ND		2.2	4.4
1,3-Dichlorobenzene		ND		0.23	4.4
1,4-Dichlorobenzene		ND		0.62	4.4
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.5	22
Acetone	12	J		3.7	22
Benzene		ND		0.22	4.4
Bromodichloromethane		ND		0.60	4.4
Bromoform		ND		2.2	4.4
Bromomethane		ND		0.40	4.4
Carbon disulfide		ND		2.2	4.4
Carbon tetrachloride		ND		0.43	4.4
Chlorobenzene		ND		0.59	4.4
Chloroethane		ND		1.0	4.4
Chloroform		ND		0.27	4.4
Chloromethane		ND		0.27	4.4
cis-1,2-Dichloroethene		ND		0.57	4.4
cis-1,3-Dichloropropene		ND		0.64	4.4
Cyclohexane		ND		0.62	4.4
Dibromochloromethane		ND		0.57	4.4
Dichlorodifluoromethane		ND		0.37	4.4
Ethylbenzene		ND		0.31	4.4
Isopropylbenzene		ND		0.67	4.4
Methyl acetate		ND		0.83	4.4
Methyl tert-butyl ether		ND		0.44	4.4
Methylcyclohexane		ND		0.68	4.4
Methylene Chloride		ND		2.0	4.4
Styrene		ND		0.22	4.4
Tetrachloroethene		ND		0.60	4.4
Toluene		ND		0.34	4.4
trans-1,2-Dichloroethene		ND		0.46	4.4
trans-1,3-Dichloropropene		ND		2.0	4.4
Trichloroethene		ND		0.98	4.4
Trichlorofluoromethane		ND		0.42	4.4

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-5 (10.5-11)Lab Sample ID: 480-45961-5  
Client Matrix: Solid

% Moisture: 18.4

Date Sampled: 09/16/2013 1215  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1430.D
Dilution:	1.0			Initial Weight/Volume:	6.9 g
Analysis Date:	09/19/2013 0337			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.54	4.4
Xylenes, Total		ND		0.75	8.9

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97		64 - 126
4-Bromofluorobenzene (Surr)	98		72 - 126
Toluene-d8 (Surr)	101		71 - 125

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-6 (10.5-11)Lab Sample ID: 480-45961-6  
Client Matrix: Solid

% Moisture: 17.6

Date Sampled: 09/16/2013 1300  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1431.D
Dilution:	1.0			Initial Weight/Volume:	6.99 g
Analysis Date:	09/19/2013 0402			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		ND		0.32	4.3
1,1,2,2-Tetrachloroethane		ND		0.70	4.3
1,1,2-Trichloro-1,2,2-trifluoroethane		ND		0.99	4.3
1,1,2-Trichloroethane		ND		0.56	4.3
1,1-Dichloroethane		ND		0.53	4.3
1,1-Dichloroethene		ND		0.53	4.3
1,2,4-Trichlorobenzene		ND		0.26	4.3
1,2-Dibromo-3-Chloropropane		ND		2.2	4.3
1,2-Dibromoethane		ND		0.56	4.3
1,2-Dichlorobenzene		ND		0.34	4.3
1,2-Dichloroethane		ND		0.22	4.3
1,2-Dichloropropane		ND		2.2	4.3
1,3-Dichlorobenzene		ND		0.22	4.3
1,4-Dichlorobenzene		ND		0.61	4.3
2-Butanone (MEK)		ND		1.6	22
2-Hexanone		ND		2.2	22
4-Methyl-2-pentanone (MIBK)		ND		1.4	22
Acetone		ND		3.7	22
Benzene		ND		0.21	4.3
Bromodichloromethane		ND		0.58	4.3
Bromoform		ND		2.2	4.3
Bromomethane		ND		0.39	4.3
Carbon disulfide		ND		2.2	4.3
Carbon tetrachloride		ND		0.42	4.3
Chlorobenzene		ND		0.57	4.3
Chloroethane		ND		0.98	4.3
Chloroform		ND		0.27	4.3
Chloromethane		ND		0.26	4.3
cis-1,2-Dichloroethene		ND		0.56	4.3
cis-1,3-Dichloropropene		ND		0.63	4.3
Cyclohexane		ND		0.61	4.3
Dibromochloromethane		ND		0.56	4.3
Dichlorodifluoromethane		ND		0.36	4.3
Ethylbenzene		ND		0.30	4.3
Isopropylbenzene		ND		0.65	4.3
Methyl acetate		ND		0.81	4.3
Methyl tert-butyl ether		ND		0.43	4.3
Methylcyclohexane		ND		0.66	4.3
Methylene Chloride		ND		2.0	4.3
Styrene		ND		0.22	4.3
Tetrachloroethene		ND		0.58	4.3
Toluene		ND		0.33	4.3
trans-1,2-Dichloroethene		ND		0.45	4.3
trans-1,3-Dichloropropene		ND		1.9	4.3
Trichloroethene		ND		0.96	4.3
Trichlorofluoromethane		ND		0.41	4.3

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-6 (10.5-11)Lab Sample ID: 480-45961-6  
Client Matrix: Solid

% Moisture: 17.6

Date Sampled: 09/16/2013 1300  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139832	Instrument ID:	HP5973F
Prep Method:	5035	Prep Batch:	480-139845	Lab File ID:	F1431.D
Dilution:	1.0			Initial Weight/Volume:	6.99 g
Analysis Date:	09/19/2013 0402			Final Weight/Volume:	5 g
Prep Date:	09/18/2013 2252				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Vinyl chloride		ND		0.53	4.3
Xylenes, Total		ND		0.73	8.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99		64 - 126
4-Bromofluorobenzene (Surr)	98		72 - 126
Toluene-d8 (Surr)	101		71 - 125

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** TRIP BLANKLab Sample ID: 480-45961-7  
Client Matrix: WaterDate Sampled: 09/16/2013 0000  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5486.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2209			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2209				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** TRIP BLANKLab Sample ID: 480-45961-7  
Client Matrix: WaterDate Sampled: 09/16/2013 0000  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5486.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2209			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2209				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	83		66 - 137
4-Bromofluorobenzene (Surr)	87		73 - 120
Toluene-d8 (Surr)	87		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

**Client Sample ID:** B-1 GW 09172013Lab Sample ID: 480-45961-8  
Client Matrix: WaterDate Sampled: 09/17/2013 1315  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5487.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2230			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		4.1	5.0
1,1,2,2-Tetrachloroethane	ND		1.1	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	5.0
1,1,2-Trichloroethane	ND		1.2	5.0
1,1-Dichloroethane	ND		1.9	5.0
1,1-Dichloroethene	ND		1.5	5.0
1,2,4-Trichlorobenzene	ND		2.1	5.0
1,2-Dibromo-3-Chloropropane	ND		2.0	5.0
1,2-Dibromoethane	ND		3.7	5.0
1,2-Dichlorobenzene	ND		4.0	5.0
1,2-Dichloroethane	ND		1.1	5.0
1,2-Dichloropropane	ND		3.6	5.0
1,3-Dichlorobenzene	ND		3.9	5.0
1,4-Dichlorobenzene	ND		4.2	5.0
2-Butanone (MEK)	ND		6.6	50
2-Hexanone	ND		6.2	25
4-Methyl-2-pentanone (MIBK)	ND		11	25
Acetone	ND		15	50
Benzene	ND		2.1	5.0
Bromodichloromethane	ND		2.0	5.0
Bromoform	ND		1.3	5.0
Bromomethane	ND		3.5	5.0
Carbon disulfide	ND		0.95	5.0
Carbon tetrachloride	ND		1.4	5.0
Chlorobenzene	ND		3.8	5.0
Chloroethane	ND		1.6	5.0
Chloroform	ND		1.7	5.0
Chloromethane	ND		1.8	5.0
cis-1,2-Dichloroethene	ND		4.1	5.0
cis-1,3-Dichloropropene	ND		1.8	5.0
Cyclohexane	ND		0.90	5.0
Dibromochloromethane	ND		1.6	5.0
Dichlorodifluoromethane	ND		3.4	5.0
Ethylbenzene	ND		3.7	5.0
Isopropylbenzene	ND		4.0	5.0
Methyl acetate	ND		2.5	5.0
Methyl tert-butyl ether	ND		0.80	5.0
Methylcyclohexane	ND		0.80	5.0
Methylene Chloride	ND		2.2	5.0
Styrene	ND		3.7	5.0
Tetrachloroethene	ND		1.8	5.0
Toluene	ND		2.6	5.0
trans-1,2-Dichloroethene	ND		4.5	5.0
trans-1,3-Dichloropropene	ND		1.9	5.0
Trichloroethene	ND		2.3	5.0
Trichlorofluoromethane	ND		4.4	5.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-45961-1

Client Sample ID: **B-1 GW 09172013**Lab Sample ID: 480-45961-8  
Client Matrix: WaterDate Sampled: 09/17/2013 1315  
Date Received: 09/17/2013 1620**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-139828	Instrument ID:	HP5975D
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	D5487.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/18/2013 2230			Final Weight/Volume:	5 mL
Prep Date:	09/18/2013 2230				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		4.5	5.0
Xylenes, Total	ND		3.3	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	81		66 - 137
4-Bromofluorobenzene (Surr)	86		73 - 120
Toluene-d8 (Surr)	89		71 - 126

# TestAmerica Buffalo

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

10 Hazelwood Drive  
Amherst, NY 14228-2298

Phone (716) 691-2600 Fax (716) 691-7991

## Client Information

Client Contact:

Mr. Dino Zack

Company:

AECOM, Inc.

Address:

100 Corporate Parkway Suite 341

City:

Amherst

State, Zip:

NY, 14226

Phone:

Email:

dino.zack@aecom.com

Project Name:

Tyco Int'l Facility - BCP (AECOM# 601559)

Site:

Sampler: MARA RABY  
Phone: 716 833 04500  
E-Mail: brian.fischer@testamericainc.com

Lab PM: Brian J  
E-Mail: brian.fischer@testamericainc.com

Carrier Tracking No(s):

COC No:  
480-39334-10380.2

Page:  
242 1 of 1

Job #:

Preservation Codes:

- A - HCl
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Ammonia
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- M - Hexane
- N - None
- O - Ash/o2
- P - Na2O4S
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4-5
- Z - other (specify)
- Other:

Total Number of Containers

Special Instructions/Note:

X

A

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## Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-45961-1

**Login Number: 45961**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	N/A	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

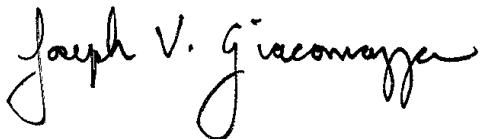
## ANALYTICAL REPORT

Job Number: 480-46536-1

Job Description: Tyco Int'l Facility-BCP(AECOM# 60155991)

For:  
AECOM, Inc.  
100 Corporate Parkway  
Suite 341  
Amherst, NY 14226

Attention: Mr. Dino Zack



Approved for release.  
Joe V Giacomazza  
Project Administrator  
9/30/2013 10:34 AM

Designee for  
Brian J Fischer, Project Manager II  
10 Hazelwood Drive, Amherst, NY, 14228-2298  
(716)504-9835  
[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)  
09/30/2013

cc: Ms. Helen Jones

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

**TestAmerica Laboratories, Inc.**

TestAmerica Buffalo 10 Hazelwood Drive, Amherst, NY 14228-2298

Tel (716) 691-2600 Fax (716) 691-7991 [www.testamericainc.com](http://www.testamericainc.com)



**Job Narrative  
480-46536-1**

**Receipt**

The samples were received on 9/25/2013 4:15 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.5° C.

**GC/MS VOA**

Method(s) 8260B: The following samples were composited by the laboratory on 09/26/2013 due to excessive sediment in the sample vials: B-3 GW 09252013 (480-46536-2).

Method(s) 8260B: The continuing calibration verification (CCV) for analytical batch 141221 recovered outside control limits for trans-1,4-Dichloro-2-butene. This was not a client requested analyte; therefore, the data have been reported.

No other analytical or quality issues were noted.

## SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-46536-1	B-2 GW 09252013	Water	09/25/2013 1410	09/25/2013 1615
480-46536-2	B-3 GW 09252013	Water	09/25/2013 1420	09/25/2013 1615
480-46536-3	B-4 GW 09252013	Water	09/25/2013 1435	09/25/2013 1615
480-46536-4	B-5 GW 09252013	Water	09/25/2013 1445	09/25/2013 1615
480-46536-5	B-6 GW 09252013	Water	09/25/2013 1500	09/25/2013 1615
480-46536-6	TRIP BLANK	Water	09/25/2013 0000	09/25/2013 1615

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 480-46536-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
480-46536-1 Acetone	B-2 GW 09252013	10		10	ug/L	8260B
480-46536-2 Acetone	B-3 GW 09252013	10		10	ug/L	8260B
480-46536-3 Acetone	B-4 GW 09252013	4.4	J	10	ug/L	8260B
480-46536-4 Acetone	B-5 GW 09252013	35		10	ug/L	8260B
480-46536-5 2-Butanone (MEK) Acetone	B-6 GW 09252013	4.1 37	J	10 10	ug/L ug/L	8260B 8260B
480-46536-6 Acetone	TRIP BLANK	5.6	J	10	ug/L	8260B

## METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds (GC/MS)	TAL BUF	SW846 8260B	
Purge and Trap	TAL BUF		SW846 5030B

**Lab References:**

TAL BUF = TestAmerica Buffalo

**Method References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 480-46536-1

Method	Analyst	Analyst ID
SW846 8260B	Larson, Renee A	RAL

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-2 GW 09252013Lab Sample ID: 480-46536-1  
Client Matrix: WaterDate Sampled: 09/25/2013 1410  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30540.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1629			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	10		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

Client Sample ID: **B-2 GW 09252013**

Lab Sample ID: 480-46536-1

Date Sampled: 09/25/2013 1410

Client Matrix: Water

Date Received: 09/25/2013 1615

**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30540.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1629			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1629				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		66 - 137
4-Bromofluorobenzene (Surr)	100		73 - 120
Toluene-d8 (Surr)	107		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-3 GW 09252013Lab Sample ID: 480-46536-2  
Client Matrix: WaterDate Sampled: 09/25/2013 1420  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30541.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1650			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1650				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	10		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-3 GW 09252013Lab Sample ID: 480-46536-2  
Client Matrix: WaterDate Sampled: 09/25/2013 1420  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30541.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1650			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1650				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	109		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-4 GW 09252013Lab Sample ID: 480-46536-3  
Client Matrix: WaterDate Sampled: 09/25/2013 1435  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30542.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1712			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1712				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	4.4	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-4 GW 09252013

Lab Sample ID: 480-46536-3

Date Sampled: 09/25/2013 1435

Client Matrix: Water

Date Received: 09/25/2013 1615

**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30542.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1712			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1712				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	103		73 - 120
Toluene-d8 (Surr)	110		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-5 GW 09252013Lab Sample ID: 480-46536-4  
Client Matrix: WaterDate Sampled: 09/25/2013 1445  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30543.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1734			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1734				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	35		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-5 GW 09252013

Lab Sample ID: 480-46536-4

Date Sampled: 09/25/2013 1445

Client Matrix: Water

Date Received: 09/25/2013 1615

**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30543.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1734			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1734				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	111		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-6 GW 09252013Lab Sample ID: 480-46536-5  
Client Matrix: WaterDate Sampled: 09/25/2013 1500  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30544.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1756			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1756				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	4.1	J	1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	37		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** B-6 GW 09252013Lab Sample ID: 480-46536-5  
Client Matrix: WaterDate Sampled: 09/25/2013 1500  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30544.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1756			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1756				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102		66 - 137
4-Bromofluorobenzene (Surr)	101		73 - 120
Toluene-d8 (Surr)	110		71 - 126

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** TRIP BLANKLab Sample ID: 480-46536-6  
Client Matrix: WaterDate Sampled: 09/25/2013 0000  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30545.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1818			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1818				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	5.6	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	1.0
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

**Analytical Data**

Client: AECOM, Inc.

Job Number: 480-46536-1

**Client Sample ID:** TRIP BLANKLab Sample ID: 480-46536-6  
Client Matrix: WaterDate Sampled: 09/25/2013 0000  
Date Received: 09/25/2013 1615**8260B Volatile Organic Compounds (GC/MS)**

Analysis Method:	8260B	Analysis Batch:	480-141221	Instrument ID:	HP5973S
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	S30545.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/26/2013 1818			Final Weight/Volume:	5 mL
Prep Date:	09/26/2013 1818				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		66 - 137
4-Bromofluorobenzene (Surr)	102		73 - 120
Toluene-d8 (Surr)	110		71 - 126

# TestAmerica Buffalo

10 Hazelwood Drive  
Amherst, NY 14228-2298  
Phone (716) 691-2600 Fax: (716) 691-7991

# Chain of Custody Record

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

<b>Client Information</b>		Sampler: <u>JANET RABY</u>	Lab PM: Fischer, Brian J	Carrier Tracking No(s):	COC No: 480-39863-10380-1
Client Contact: Mr. Dino Zack	Company: AECOM, Inc.	Phone: 716 834 4504	E-Mail: brian.fischer@testamericaninc.com	Date/Time:	Page: 1 of 1
Address: 100 Corporate Parkway Suite 341	City: Amherst	TAT Requested (days):	Analysis Requested		
State, Zip: NY, 14226	Phone:	PO #:			
Email: dino.zack@aecom.com	Project Name: Tyco Int'l Facility - BCP (AECON# 601559)	Purchase Order not required WO #:			
SSOW#:	Project #: 48008494	8260B - TCL 11st OLM042	Total Number of containers		
<b>Sample Identification</b>	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, T=tissue, A=air)	Preservation Code:
B-2	09/25/2013	01/25/13	1410 G	Water	A 2 vials
B-3	09/25/2013	1420 G	Water	A 3 vials	
B-4	09/25/2013	1435 G	Water	A 3 vials	
B-5	09/25/2013	1445 G	Water	A 1 vial	
B-6	09/25/2013	1500 G	Water	A 1 vial	
TRIP BLANK					
Special Instructions/Note:					
<input type="checkbox"/> Field Filtered Sample (yes or No) <input type="checkbox"/> Particulate MS/MSD (yes or No)					
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV. Other (specify)					
Empty Kit Relinquished by: <u>Janet Raby</u>		Date: <u>07/25/13</u>	Time: <u>10:15</u>	Method of Shipment:	Carrier: <u>1615</u>
Relinquished by: <u>Janet Raby</u>		Date/Time: <u>07/25/13</u>	Time: <u>10:15</u>	Received by: <u>Janet Raby</u>	Company: <u>TestAmerica</u>
Relinquished by: <u>Janet Raby</u>		Date/Time: <u>07/25/13</u>	Time: <u>10:15</u>	Received by: <u>Janet Raby</u>	Company: <u>TestAmerica</u>
Custody Seals intact: <input type="checkbox"/> Custody Seal No.: <u>H 2 3,5</u>					
Cooler Temperature(s) °C and Other Remarks: <u> </u>					

## Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-46536-1

**Login Number: 46536**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Kolb, Chris M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	N/A	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

**Attachment 3**

**SVI Boring Logs**



<p><b>Client:</b> Tyco International  <b>Project Number:</b> 60155991  <b>Boring Location:</b> North of CB-1 and TP-5  <b>Drilling Method:</b> Geoprobe 54UD  <b>Weather:</b> 60 Deg F, m. cloudy, little to no wind</p>						<b>BORING ID:</b> SVI-SS1 Sheet: 1 of 1		
<b>Logged By:</b> E. Laity (AECOM) <b>Drilled By:</b> M. Janus (Matrix)						Date/Time Started: 06/25/15 7:20		
						Date/Time Finished: 06/25/15 7:40		
Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4 ft	4 ft macrocore	2.5 ft	0.0	ML CL	0-1' of recovery: Brown SILT, little f. sand, little f. gravel, rootlets, soft, moist.  1"-4' of recovery: Mottled tan, red-brown, grey CLAY, medium stiff, dry to moist.		cement-bentonite grout: 0-2' bsg  powdered bentonite, wetted: 2-3' bsg  sand #1: 3-4.5' bsg tubing 4' bsg
2								
3								
4								
5								
6	4-4.5 ft	4 ft macrocore	0.5	0		Same as Above		
7								
8						B.O.B. @ 4.5 ft bsg		
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
END OF BORING @ 4 ft bsg								
<b>NOTES:</b> * units relative to isobutylene/methane span gas in parts per million (ppm) f - fine; m - medium; c - coarse NA - not applicable SAA - Same as above								
Checked by: _____ Date: _____								



		Client: Tyco International Project Number: 60155991 Boring Location: North of Visitors parking lot in tree lawn by storm sewer manhole Drilling Method: Geoprobe 54UD Weather: 60 Deg F, m. cloudy, little to no wind					<b>BORING ID:</b>		SVI-SS2				
		Sheet: 1 of 1											
		Logged By: E. Laity (AECOM)							Date/Time Started:		06/25/15 7:50		
		Drilled By: M. Janus (Matrix)							Date/Time Finished:		06/25/15 7:55		
		Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description			Lab Sample ID	Well Construction Details	
		1	0-4 ft	4 ft macrocore	4 ft	0.2	CL	0-4" of recovery: Brown SILT, little f. sand, little f. gravel, rootlets, loose, soft, dry (Topsoil)  4"-4' of recovery: Red brown CLAY, medium stiff, dry to moist				cement-bentonite grout: 0-2' bsg	
2	0.2					powdered bentonite, wetted: 2-3' bsg							
3	0.4					sand #1: 3-4' bsg							
4						tubing 4' bsg							
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
END OF BORING @ 4 ft bsg													
<b>NOTES:</b> * units relative to isobutylene/methane span gas in parts per million (ppm) f - fine; m - medium; c - coarse NA - not applicable SAA - Same as above													
Checked by: _____ Date: _____													



		Client: Tyco International Project Number: 60155991 Boring Location: Tree lawn in front of 205 Erie St. Drilling Method: Geoprobe 54UD Weather: 60 Deg F, m. cloudy, little to no wind					<b>BORING ID:</b>		SVI-SS3			
		Sheet: 1 of 1										
		Logged By: E. Laity (AECOM) Drilled By: M. Janus (Matrix)					<b>Date/Time Started:</b>		06/25/15 8:00			
									<b>Date/Time Finished:</b>		06/25/15 8:05	
		Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description		Lab Sample ID	Well Construction Details	
		1	0-4 ft	4 ft macrocore	4 ft	0.4	ML CL	0-8" of recovery: Brown SILT, little f. sand, little f. gravel, rootlets, loose, soft, dry (Topsoil) 8"-4' of recovery: Red brown CLAY, medium stiff, dry to moist			cement-bentonite grout: 0-2' bsg  powdered bentonite, wetted: 2-3' bsg  sand #1: 3-4' bsg tubing 4' bsg	
2												
3												
4												
5												
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19												
20												
END OF BORING @ 4 ft bsg												
<b>NOTES:</b> * units relative to isobutylene/methane span gas in parts per million (ppm) f - fine; m - medium; c - coarse NA - not applicable SAA - Same as above												
Checked by: _____ Date: _____												



Client: Tyco International Project Number: 60155991 Boring Location: Tree lawn in front of 197 Erie St. Drilling Method: Geoprobe 54UD Weather: 60 Deg F, m. cloudy, little to no wind						<b>BORING ID:</b> <b>SVI-SS4</b> Sheet: 1 of 1		
Logged By: E. Laity (AECOM) Drilled By: M. Janus (Matrix)						Date/Time Started: 06/25/15 8:10		
						Date/Time Finished: 06/25/15 8:25		
Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4 ft	4 ft macrocore	4 ft	0.8	ML	0-7" of recovery: Brown SILT, little f. sand, little f. gravel, rootlets, loose, soft, dry (Topsoil)		cement-bentonite grout: 0-2' bsg  powdered bentonite, wetted: 2-3' bsg  sand #1: 3-4' bsg tubing 4' bsg
2					CL	7"-27" of recovery: Red brown & tan mottled CLAY, little silt, rootlets, medium stiff, dry		
3					SP	27-38" of recovery: Tan brown f. SAND moist to wet, loose		
4					CL	38-48" of recovery: Red-brown CLAY medium stiff, dry to moist		
5						B.O.B. @ 4 ft bsg		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
END OF BORING @ 4 ft bsg								
<b>NOTES:</b> * units relative to isobutylene/methane span gas in parts per million (ppm) f - fine; m - medium; c - coarse NA - not applicable SAA - Same as above								
Checked by: _____ Date: _____								



Client:	Tyco International	<b>BORING ID:</b> <b>SVI-SS4b</b>
Project Number:	60155991	
Boring Location:	Tree lawn in front of 197 Erie St.	
Drilling Method:	Geoprobe 54UD	
Weather:	60 Deg F, m. cloudy, little to no wind	Date/Time Started: 06/25/15 9:25

Logged By:	E. Laity (AECOM)	Date/Time Finished:
Drilled By:	M. Janus (Matrix)	06/25/15 9:35

Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4 ft	4 ft macrocore	4 ft	0.9	ML	0-4" of recovery: Brown SILT, little f. sand dry to moist (Topsoil) 4"-4' of recovery: Light Brown CLAY, little grey, red-brown mottles, medium dense, dry; tree root at 1' bsg.		
2					CL			
3				0.7				
4						B.O.B. @ 4 ft bsg		
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

END OF BORING @ 4 ft bsg

**NOTES:**

\* units relative to isobutylene/methane span gas in parts per million (ppm)

f - fine; m - medium; c - coarse

NA - not applicable

SAA - Same as above

Checked by: \_\_\_\_\_ Date: \_\_\_\_\_



<b>AECOM</b>		Client: Tyco International					<b>BORING ID:</b> <b>SVI-SS5</b> Sheet: 1 of 1	
		Project Number: 60155991						
		Boring Location: Tree lawn in front of 189 Erie St.						
		Drilling Method: Geoprobe 54UD						
		Weather: 60 Deg F, m. cloudy, little to no wind						
		Logged By: E. Laity (AECOM)						
Drilled By: M. Janus (Matrix)					Date/Time Started: 06/25/15 8:30			
Date/Time Finished: 06/25/15 8:45								
Depth (ft)	Sample Number	Sample Type	Recovery (ft)	PID reading*	U.S.C.S	Lithologic Description	Lab Sample ID	Well Construction Details
1	0-4 ft	4 ft macrocore	4 ft	2.0	ML	0-3" of recovery: Brown SILT, little f. sand, rootlets, loose, dry to moist (Topsoil)		
2						3"-4' of recovery: Mottled tan, red-brown, grey CLAY, medium stiff, dry to moist.		
3				0.7	CL	B.O.B. @ 4 ft bsg		
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
END OF BORING @ 4 ft bsg								
<b>NOTES:</b> * units relative to isobutylene/methane span gas in parts per million (ppm) f - fine; m - medium; c - coarse NA - not applicable SAA - Same as above								
Checked by: _____ Date: _____								

**Attachment 4**

**SVI Sample Logs**

**VAPOR INTRUSION EVALUATION - STORM SEWER**  
**SOIL/AMBIENT VAPOR SAMPLING LOG SHEET**

FORMER SCOTT AVIATION FACILITY AREA 1 BCP Site, NYSDEC SITE CODE C915233  
 LANCASTER, NEW YORK

Sample ID	Sample Date	Sampled By	Canister Number	Flow Controller Number	Sample Start Time	Sample Stop Time	Sample Depth	Purge Volume	Sampled Volume	Soil Moisture Content	PID (ppm)	Detected Helium Conc. (ppm)	Vacuum Before	Vacuum After	Comments
SVI-SS1	6/26/2015	E. Laity	4488	2577	9:48	12:15	-4	400 ml	3 L	moist	0.0	0.0	-30	-4	-
SVI-SS2	6/26/2015	E. Laity	5167	2823	11:15	13:50	-4	400 ml	3 L	dry	0.0	0.0	-30	-5	-
SVI-SS3	6/26/2015	E. Laity	5641	3859	11:20	13:55	-4	400 ml	3 L	dry	0.0	0.0	-26	-5	-
SVI-SS4	6/26/2015	E. Laity	5408	3125	13:45	16:10	-4	400 ml	3 L	moist	0.0	0.0	-30	-7	a few water drops in tubing - not observed during sample collection
SVI-SS4b	6/26/2015	E. Laity	4096	5179	11:25	14:30	-4	400 ml	3 L	dry	0.0	0.0	-30	-30	failed sample - not collected
SVI-SS5	6/26/2015	E. Laity	2779	3223	11:30	14:00	-4	400 ml	3 L	dry	0.0	0.0	-30	-7	-
AAS-1	6/26/2015	E. Laity	5709	4516	9:43	12:10	-	400 ml	3 L	-	0.0	-	-28	-3	-
Duplicate (AAS-1)	6/26/2015	E. Laity	4820	4208	9:13	12:10	-	400 ml	3 L	-	0.0	-	-30	-5	-

Notes: All samples collected in 3-liter SUMMA canisters.

All regulators were pre-set by laboratory to 0.2 Liters/minute sampling rate for a 2 hour sample collection time.

SVI - soil vapor intrusion sample point

AAS - ambient air sample

**Attachment 5**

**Daily Weather Log**

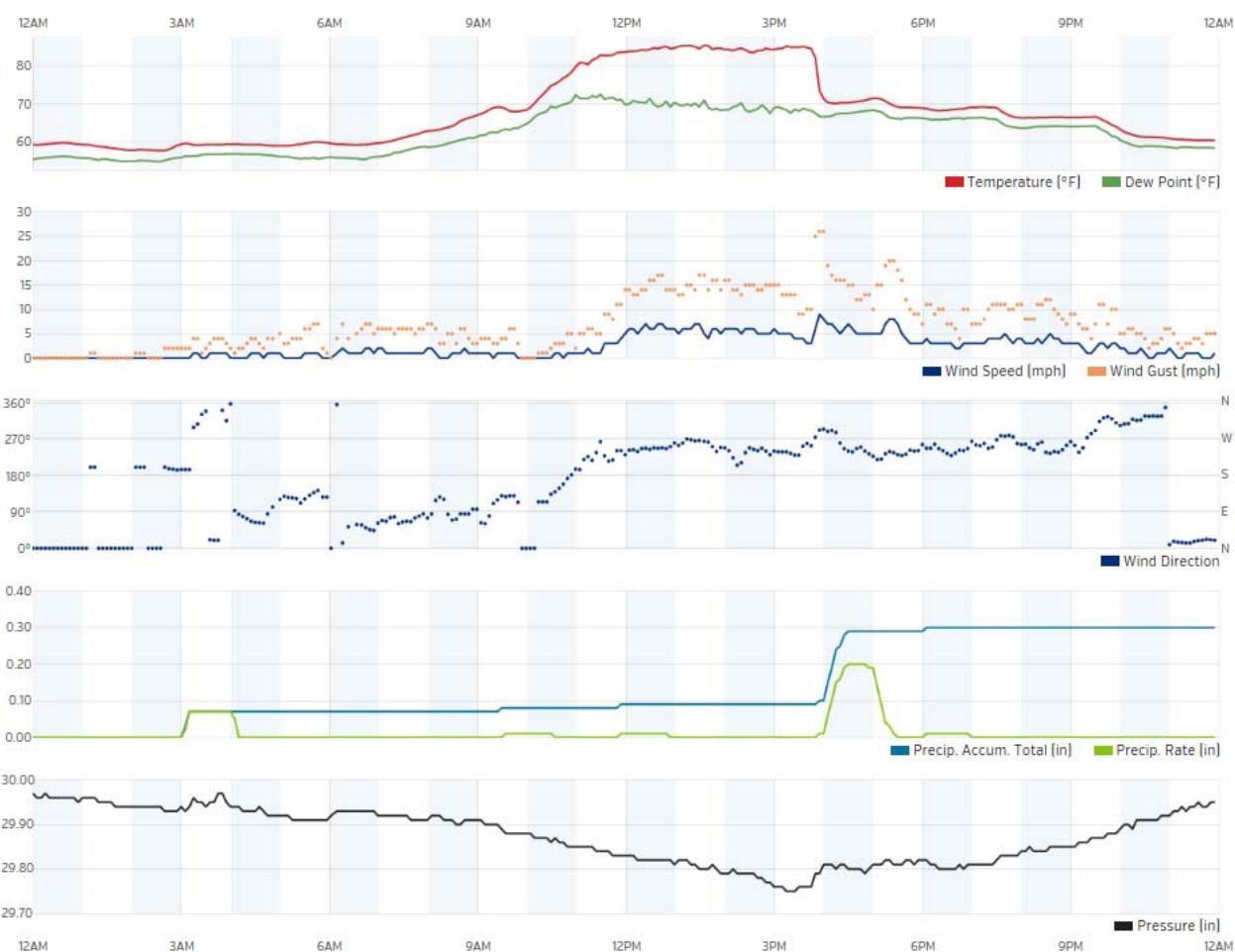
## Weather History for Lancaster, NY [KNYLANCA3]

[Previous](#) Daily Mode June 12, 2015 View

### Summary

June 12, 2015

	High	Low	Average		High	Low	Average
Temperature	85.8 °F	57.6 °F	68.1 °F	Wind Speed	9 mph	--	2 mph
Dew Point	72.6 °F	54.6 °F	62.5 °F	Wind Gust	26 mph	--	--
Humidity	93%	56%	83%	Wind Direction	--	--	WSW
Precipitation	0.3 in	--	--	Pressure	29.97 in	29.75 in	--



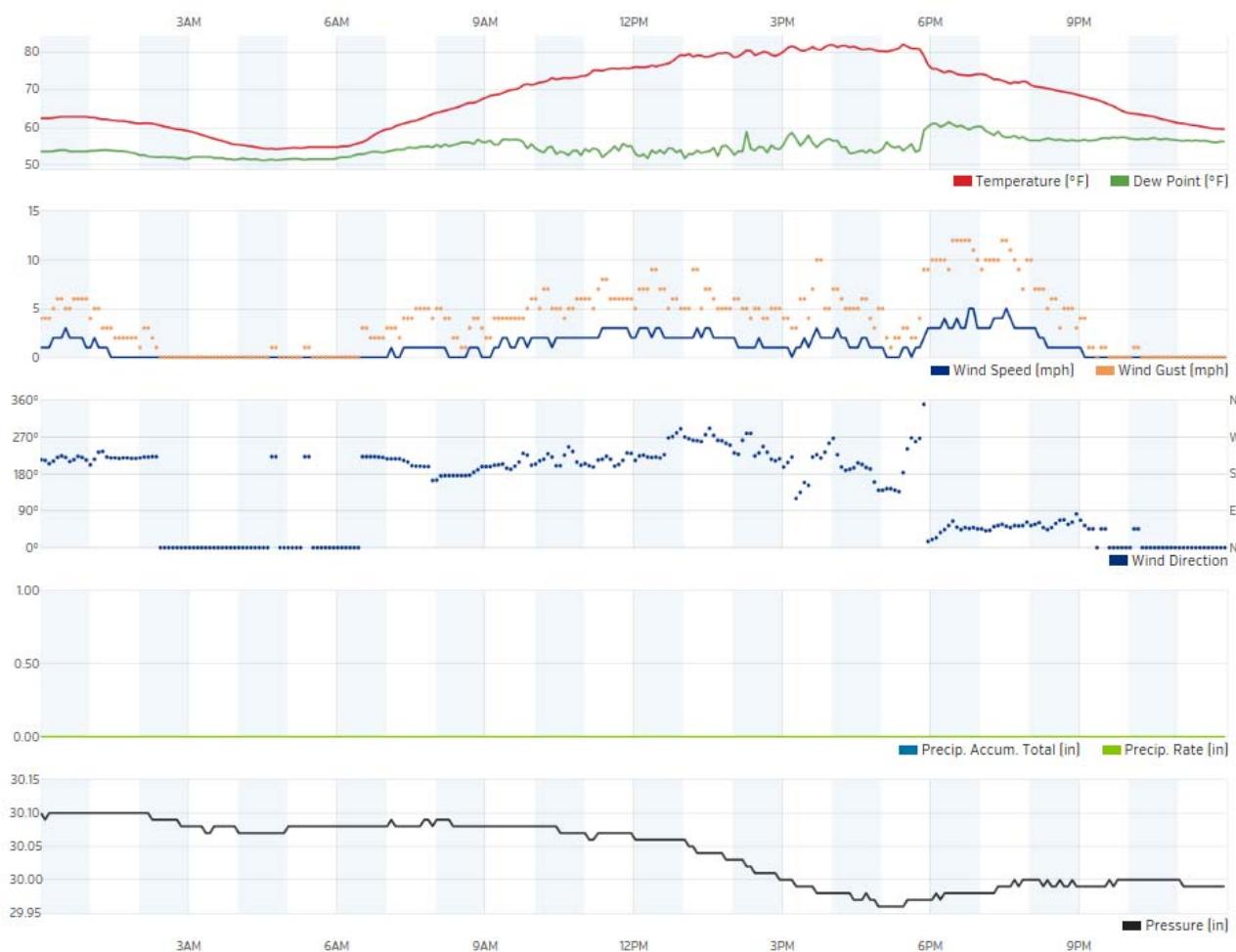
## Weather History for Lancaster, NY [KNYLANCA3]

[Previous](#) Daily Mode June 25, 2015 [View](#)

### Summary

June 25, 2015

	High	Low	Average		High	Low	Average
Temperature	82 °F	54.2 °F	68.2 °F	Wind Speed	5 mph	--	1 mph
Dew Point	61.4 °F	51.1 °F	54.8 °F	Wind Gust	12 mph	--	--
Humidity	90%	38%	65%	Wind Direction	--	--	SW
Precipitation	0 in	--	--	Pressure	30.1 in	29.96 in	--



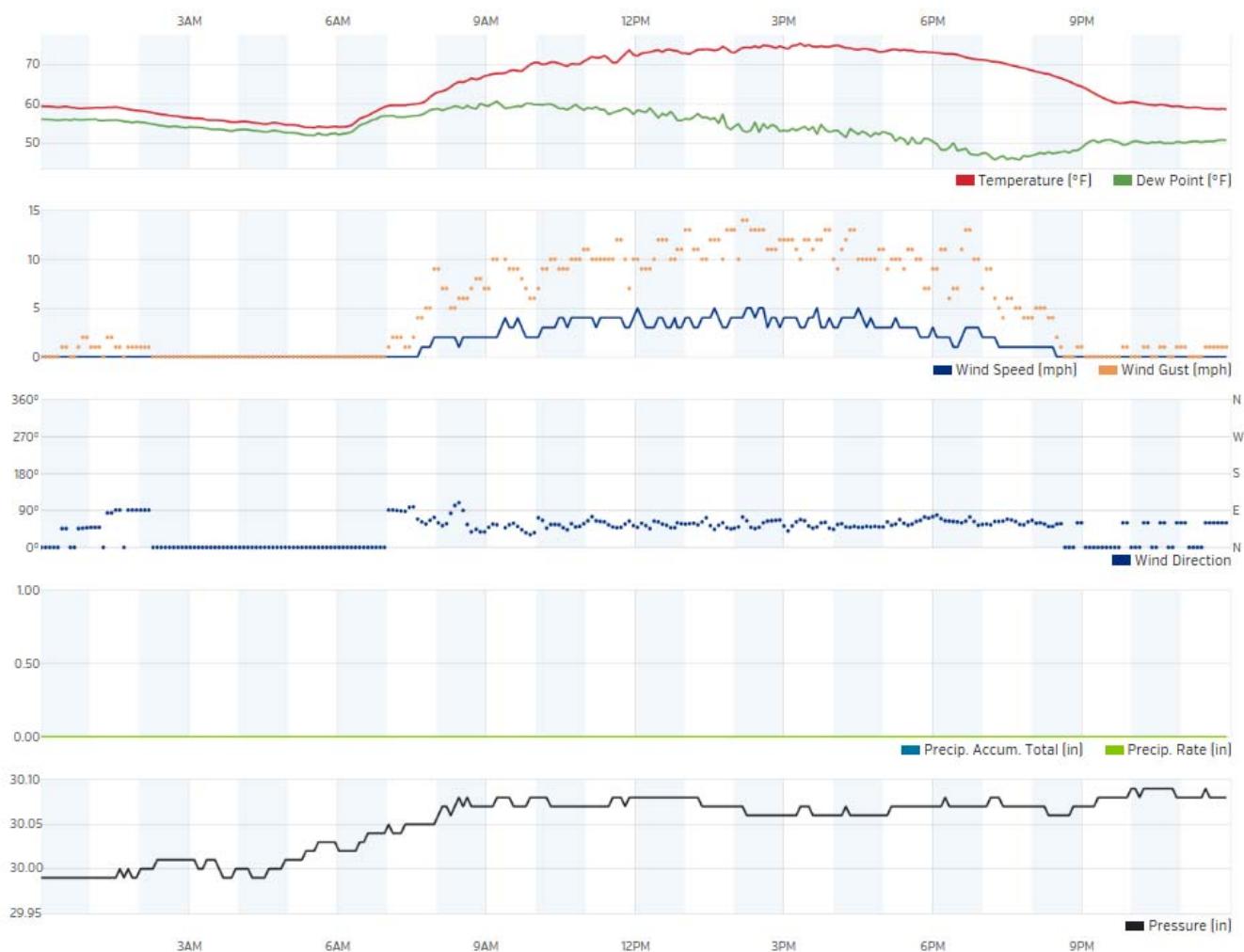
## Weather History for Lancaster, NY [KNYLANCA3]

[Previous](#) Daily Mode June 26, 2015 View

### Summary June 26, 2015

	High	Low	Average
Temperature	75.5 °F	54 °F	65.3 °F
Dew Point	60.7 °F	45.3 °F	53.9 °F
Humidity	94%	41%	69%
Precipitation	0 in	--	--

	High	Low	Average
Wind Speed	6 mph	--	2 mph
Wind Gust	14 mph	--	--
Wind Direction	--	--	NE
Pressure	30.09 in	29.99 in	--



**Attachment 6**

**Photograph Log**

**AECOM****REMEDIAL INVESTIGATION  
PHOTOGRAPH LOG****Client Name:** Tyco Safety Products  
**Project No.:** 60155991**Site Location:** Former Scott Aviation Facility  
Area - 1 BCP, Lancaster, New York**NYSDEC Project  
No.:** C915233**Photo No.**  
**1****Date:**  
6/12/15**Direction Photo Taken:**

South

**Description:**View of CB-1. Note TP-5  
PVC stickup.**Photo No.**  
**2****Date:**  
6/12/15**Direction Photo Taken:**

North

**Description:**View of TP-6. Note  
Manhole at Erie Street in  
background.

<b>Photo No.</b> <b>3</b>	<b>Date:</b> 6/12/15
<b>Direction Photo Taken:</b>	
North	
<b>Description:</b>	
Looking down into Erie Street Manhole.	



<b>Photo No.</b> <b>4</b>	<b>Date:</b> 4/13/15
<b>Direction Photo Taken:</b>	
West	
<b>Description:</b>	
View of TP-6 storm sewer bedding materials.	



<b>Photo No.</b> <b>5</b>	<b>Date:</b> 6/12/15	
<b>Direction Photo Taken:</b>		
<b>Description:</b>  View of CB-5 sampling location.		

<b>Photo No.</b> <b>6</b>	<b>Date:</b> 6/12/15	
<b>Direction Photo Taken:</b>		
<b>Description:</b>  View of outfall sampling location underneath the cross bridge for Spring Creek on Erie Street.		

<b>Photo No.</b> <b>7</b>	<b>Date:</b> 6/25/15
<b>Direction Photo Taken:</b>	
Northwest	
<b>Description:</b> View of SVI-SS1 being grouted in place. Note CB-1 on the left hand side.	



<b>Photo No.</b> <b>8</b>	<b>Date:</b> 6/25/15
<b>Direction Photo Taken:</b>	
North	
<b>Description:</b> View SVI-SS2 location during installation. Note Manhole at Erie Street in background.	



<b>Photo No.</b> <b>9</b>	<b>Date:</b> 6/25/15
<b>Direction Photo Taken:</b>	
West	
<b>Description:</b>	
View of SVI-SS3 location, located on the East side of the 205 Erie Street property in the tree lawn.	

<b>Photo No.</b> <b>10</b>	<b>Date:</b> 6/25/15
<b>Direction Photo Taken:</b>	
West	
<b>Description:</b>	
View of SVI-SS4 location, located in front of the 197 Erie Street property in the tree lawn.	



<b>Photo No.</b> <b>13</b>	<b>Date:</b> 6/26/15
<b>Direction Photo</b>	
<b>Taken:</b>	
Southwest	
<b>Description:</b>	
View of the ambient air SVI sample and duplicate located Southeast of the 205 Erie Street property and South of the AVOX Plant 1 visitor parking lot.	



**Attachment 7**

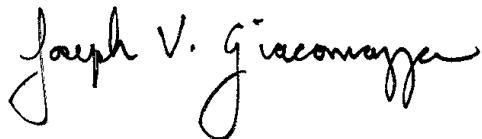
**SVI Analytical Report**

## ANALYTICAL REPORT

Job Number: 200-28653-1

Job Description: Scott Aviation site

For:  
AECOM, Inc.  
257 West Genesse St.  
Suite 400  
Buffalo, NY 14202-2657  
Attention: Mr. Dino Zack



Approved for release.  
Joe V Giacomazza  
Project Management Assistant II  
7/6/2015 4:57 PM

Designee for  
Brian J Fischer, Manager of Project Management  
10 Hazelwood Drive, Amherst, NY, 14228-2298  
(716)504-9835  
[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)  
07/06/2015

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

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**Job Narrative  
200-28653-1**

**Receipt**

The samples were received on 6/27/2015 1:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice.

**Receipt Exceptions**

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC):  
Sample 6, (SVI-S)SFC & canister on COC appear to be duplicate numbers of sample SSI-SS4B. Used actual for log-in.

**Air Toxics**

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

## SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-28653-1	SVI-SS1	Air	06/26/2015 1215	06/27/2015 1300
200-28653-2	AAS-1	Air	06/26/2015 1210	06/27/2015 1300
200-28653-3FD	DUPLICATE	Air	06/26/2015 1210	06/27/2015 1300
200-28653-4	SVI-SS2	Air	06/26/2015 1350	06/27/2015 1300
200-28653-5	SVI-SS3	Air	06/26/2015 1355	06/27/2015 1300
200-28653-6	SVI-SS4	Air	06/26/2015 1610	06/27/2015 1300
200-28653-8	SVI-SS5	Air	06/26/2015 1400	06/27/2015 1300

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID SVI-SS1	Result	Qualifier	Reporting Limit	Units	Method
1,1,1-Trichloroethane	20		0.20	ppb v/v	TO-15	
1,1,1-Trichloroethane	110		1.1	ug/m3	TO-15	
1,1-Dichloroethane	5.2		0.20	ppb v/v	TO-15	
1,1-Dichloroethane	21		0.81	ug/m3	TO-15	
1,1-Dichloroethene	0.62		0.20	ppb v/v	TO-15	
1,1-Dichloroethene	2.5		0.79	ug/m3	TO-15	
1,2,4-Trimethylbenzene	2.0		0.20	ppb v/v	TO-15	
1,2,4-Trimethylbenzene	10		0.98	ug/m3	TO-15	
1,2-Dichloroethene, Total	1.8		0.20	ppb v/v	TO-15	
1,2-Dichloroethene, Total	7.1		0.79	ug/m3	TO-15	
1,3,5-Trimethylbenzene	0.57		0.20	ppb v/v	TO-15	
1,3,5-Trimethylbenzene	2.8		0.98	ug/m3	TO-15	
4-Ethyltoluene	0.60		0.20	ppb v/v	TO-15	
4-Ethyltoluene	3.0		0.98	ug/m3	TO-15	
Acetone	25		5.0	ppb v/v	TO-15	
Acetone	60		12	ug/m3	TO-15	
Benzene	0.49		0.20	ppb v/v	TO-15	
Benzene	1.6		0.64	ug/m3	TO-15	
Bromodichloromethane	0.46		0.20	ppb v/v	TO-15	
Bromodichloromethane	3.1		1.3	ug/m3	TO-15	
Carbon disulfide	20		0.50	ppb v/v	TO-15	
Carbon disulfide	62		1.6	ug/m3	TO-15	
Chloroform	9.1		0.20	ppb v/v	TO-15	
Chloroform	45		0.98	ug/m3	TO-15	
cis-1,2-Dichloroethene	1.8		0.20	ppb v/v	TO-15	
cis-1,2-Dichloroethene	7.2		0.79	ug/m3	TO-15	
Ethylbenzene	1.1		0.20	ppb v/v	TO-15	
Ethylbenzene	4.8		0.87	ug/m3	TO-15	
Freon TF	18		0.20	ppb v/v	TO-15	
Freon TF	140		1.5	ug/m3	TO-15	
m,p-Xylene	4.7		0.50	ppb v/v	TO-15	
m,p-Xylene	20		2.2	ug/m3	TO-15	
Methyl Ethyl Ketone	1.0		0.50	ppb v/v	TO-15	
Methyl Ethyl Ketone	3.1		1.5	ug/m3	TO-15	
n-Heptane	0.37		0.20	ppb v/v	TO-15	
n-Heptane	1.5		0.82	ug/m3	TO-15	
n-Hexane	0.71		0.20	ppb v/v	TO-15	
n-Hexane	2.5		0.70	ug/m3	TO-15	
Toluene	3.7		0.20	ppb v/v	TO-15	
Toluene	14		0.75	ug/m3	TO-15	
Trichloroethene	1.5		0.20	ppb v/v	TO-15	
Trichloroethene	8.2		1.1	ug/m3	TO-15	
Trichlorofluoromethane	0.24		0.20	ppb v/v	TO-15	
Trichlorofluoromethane	1.4		1.1	ug/m3	TO-15	
Xylene (total)	6.3		0.20	ppb v/v	TO-15	
Xylene (total)	27		0.87	ug/m3	TO-15	

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Xylene, o-		1.6		0.20	ppb v/v	TO-15
Xylene, o-		6.9		0.87	ug/m3	TO-15
<b>200-28653-2</b>	<b>AAS-1</b>					
Chloromethane		0.51		0.50	ppb v/v	TO-15
Chloromethane		1.1		1.0	ug/m3	TO-15
Methyl Ethyl Ketone		0.50		0.50	ppb v/v	TO-15
Methyl Ethyl Ketone		1.5		1.5	ug/m3	TO-15
<b>200-28653-3FD</b>	<b>DUPLICATE</b>					
Acetone		7.5		5.0	ppb v/v	TO-15
Acetone		18		12	ug/m3	TO-15
Carbon disulfide		1.5		0.50	ppb v/v	TO-15
Carbon disulfide		4.8		1.6	ug/m3	TO-15
Methyl Ethyl Ketone		1.1		0.50	ppb v/v	TO-15
Methyl Ethyl Ketone		3.2		1.5	ug/m3	TO-15

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID SVI-SS2	Result	Qualifier	Reporting Limit	Units	Method
200-28653-4						
1,1,1-Trichloroethane	16		0.70	ppb v/v	TO-15	
1,1,1-Trichloroethane	87		3.8	ug/m3	TO-15	
1,1-Dichloroethane	1.2		0.70	ppb v/v	TO-15	
1,1-Dichloroethane	4.9		2.8	ug/m3	TO-15	
1,2,4-Trimethylbenzene	2.5		0.70	ppb v/v	TO-15	
1,2,4-Trimethylbenzene	12		3.5	ug/m3	TO-15	
1,3,5-Trimethylbenzene	1.1		0.70	ppb v/v	TO-15	
1,3,5-Trimethylbenzene	5.6		3.5	ug/m3	TO-15	
2,2,4-Trimethylpentane	0.78		0.70	ppb v/v	TO-15	
2,2,4-Trimethylpentane	3.6		3.3	ug/m3	TO-15	
4-Ethyltoluene	1.1		0.70	ppb v/v	TO-15	
4-Ethyltoluene	5.6		3.5	ug/m3	TO-15	
Acetone	85		18	ppb v/v	TO-15	
Acetone	200		42	ug/m3	TO-15	
Benzene	2.5		0.70	ppb v/v	TO-15	
Benzene	7.8		2.2	ug/m3	TO-15	
Bromodichloromethane	2.9		0.70	ppb v/v	TO-15	
Bromodichloromethane	20		4.7	ug/m3	TO-15	
Carbon disulfide	59		1.8	ppb v/v	TO-15	
Carbon disulfide	180		5.5	ug/m3	TO-15	
Chloroform	27		0.70	ppb v/v	TO-15	
Chloroform	130		3.4	ug/m3	TO-15	
Ethylbenzene	12		0.70	ppb v/v	TO-15	
Ethylbenzene	52		3.0	ug/m3	TO-15	
Freon TF	15		0.70	ppb v/v	TO-15	
Freon TF	110		5.4	ug/m3	TO-15	
m,p-Xylene	38		1.8	ppb v/v	TO-15	
m,p-Xylene	170		7.6	ug/m3	TO-15	
Methyl Ethyl Ketone	3.4		1.8	ppb v/v	TO-15	
Methyl Ethyl Ketone	10		5.2	ug/m3	TO-15	
n-Heptane	2.4		0.70	ppb v/v	TO-15	
n-Heptane	10		2.9	ug/m3	TO-15	
n-Hexane	2.9		0.70	ppb v/v	TO-15	
n-Hexane	10		2.5	ug/m3	TO-15	
Toluene	30		0.70	ppb v/v	TO-15	
Toluene	110		2.6	ug/m3	TO-15	
Trichloroethene	1.3		0.70	ppb v/v	TO-15	
Trichloroethene	7.0		3.8	ug/m3	TO-15	
Xylene (total)	49		0.70	ppb v/v	TO-15	
Xylene (total)	210		3.0	ug/m3	TO-15	
Xylene, o-	11		0.70	ppb v/v	TO-15	
Xylene, o-	49		3.0	ug/m3	TO-15	

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID SVI-SS3	Result	Qualifier	Reporting Limit	Units	Method
1,2,4-Trimethylbenzene	2.7		0.71	ppb v/v	TO-15	
1,2,4-Trimethylbenzene	13		3.5	ug/m3	TO-15	
1,3,5-Trimethylbenzene	1.4		0.71	ppb v/v	TO-15	
1,3,5-Trimethylbenzene	6.7		3.5	ug/m3	TO-15	
2,2,4-Trimethylpentane	1.0		0.71	ppb v/v	TO-15	
2,2,4-Trimethylpentane	4.8		3.3	ug/m3	TO-15	
4-Ethyltoluene	1.4		0.71	ppb v/v	TO-15	
4-Ethyltoluene	6.9		3.5	ug/m3	TO-15	
Acetone	98		18	ppb v/v	TO-15	
Acetone	230		42	ug/m3	TO-15	
Benzene	3.3		0.71	ppb v/v	TO-15	
Benzene	10		2.3	ug/m3	TO-15	
Bromodichloromethane	5.4		0.71	ppb v/v	TO-15	
Bromodichloromethane	36		4.8	ug/m3	TO-15	
Carbon disulfide	39		1.8	ppb v/v	TO-15	
Carbon disulfide	120		5.6	ug/m3	TO-15	
Chloroform	35		0.71	ppb v/v	TO-15	
Chloroform	170		3.5	ug/m3	TO-15	
Cyclohexane	1.0		0.71	ppb v/v	TO-15	
Cyclohexane	3.5		2.5	ug/m3	TO-15	
Ethylbenzene	8.4		0.71	ppb v/v	TO-15	
Ethylbenzene	36		3.1	ug/m3	TO-15	
m,p-Xylene	29		1.8	ppb v/v	TO-15	
m,p-Xylene	120		7.8	ug/m3	TO-15	
Methyl Butyl Ketone (2-Hexanone)	3.5		1.8	ppb v/v	TO-15	
Methyl Butyl Ketone (2-Hexanone)	14		7.3	ug/m3	TO-15	
Methyl Ethyl Ketone	7.2		1.8	ppb v/v	TO-15	
Methyl Ethyl Ketone	21		5.3	ug/m3	TO-15	
n-Heptane	2.7		0.71	ppb v/v	TO-15	
n-Heptane	11		2.9	ug/m3	TO-15	
n-Hexane	2.9		0.71	ppb v/v	TO-15	
n-Hexane	10		2.5	ug/m3	TO-15	
Toluene	24		0.71	ppb v/v	TO-15	
Toluene	91		2.7	ug/m3	TO-15	
Xylene (total)	38		0.71	ppb v/v	TO-15	
Xylene (total)	160		3.1	ug/m3	TO-15	
Xylene, o-	8.9		0.71	ppb v/v	TO-15	
Xylene, o-	39		3.1	ug/m3	TO-15	

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID SVI-SS4	Result	Qualifier	Reporting Limit	Units	Method
200-28653-6						
1,1,1-Trichloroethane		1.9		0.80	ppb v/v	TO-15
1,1,1-Trichloroethane		10		4.4	ug/m3	TO-15
1,2,4-Trimethylbenzene		1.9		0.80	ppb v/v	TO-15
1,2,4-Trimethylbenzene		9.2		3.9	ug/m3	TO-15
Acetone		110		20	ppb v/v	TO-15
Acetone		270		48	ug/m3	TO-15
Carbon disulfide		22		2.0	ppb v/v	TO-15
Carbon disulfide		67		6.2	ug/m3	TO-15
Chloroform		2.5		0.80	ppb v/v	TO-15
Chloroform		12		3.9	ug/m3	TO-15
Ethylbenzene		1.2		0.80	ppb v/v	TO-15
Ethylbenzene		5.1		3.5	ug/m3	TO-15
Freon TF		4.0		0.80	ppb v/v	TO-15
Freon TF		30		6.1	ug/m3	TO-15
m,p-Xylene		4.7		2.0	ppb v/v	TO-15
m,p-Xylene		20		8.7	ug/m3	TO-15
Methyl Ethyl Ketone		3.7		2.0	ppb v/v	TO-15
Methyl Ethyl Ketone		11		5.9	ug/m3	TO-15
n-Hexane		0.97		0.80	ppb v/v	TO-15
n-Hexane		3.4		2.8	ug/m3	TO-15
Toluene		4.1		0.80	ppb v/v	TO-15
Toluene		15		3.0	ug/m3	TO-15
Xylene (total)		6.3		0.80	ppb v/v	TO-15
Xylene (total)		27		3.5	ug/m3	TO-15
Xylene, o-		1.6		0.80	ppb v/v	TO-15
Xylene, o-		7.1		3.5	ug/m3	TO-15

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 200-28653-1

Lab Sample ID Analyte	Client Sample ID SVI-SS5	Result	Qualifier	Reporting Limit	Units	Method
1,1,1-Trichloroethane	1.9			0.60	ppb v/v	TO-15
1,1,1-Trichloroethane	11			3.3	ug/m3	TO-15
1,2,4-Trimethylbenzene	2.0			0.60	ppb v/v	TO-15
1,2,4-Trimethylbenzene	9.6			2.9	ug/m3	TO-15
1,3-Butadiene	0.60			0.60	ppb v/v	TO-15
1,3-Butadiene	1.3			1.3	ug/m3	TO-15
2,2,4-Trimethylpentane	0.78			0.60	ppb v/v	TO-15
2,2,4-Trimethylpentane	3.6			2.8	ug/m3	TO-15
4-Ethyltoluene	0.65			0.60	ppb v/v	TO-15
4-Ethyltoluene	3.2			2.9	ug/m3	TO-15
Acetone	87			15	ppb v/v	TO-15
Acetone	210			36	ug/m3	TO-15
Benzene	1.9			0.60	ppb v/v	TO-15
Benzene	6.0			1.9	ug/m3	TO-15
Bromodichloromethane	3.8			0.60	ppb v/v	TO-15
Bromodichloromethane	26			4.0	ug/m3	TO-15
Carbon disulfide	40			1.5	ppb v/v	TO-15
Carbon disulfide	130			4.7	ug/m3	TO-15
Chloroform	18			0.60	ppb v/v	TO-15
Chloroform	86			2.9	ug/m3	TO-15
Cyclohexane	0.86			0.60	ppb v/v	TO-15
Cyclohexane	3.0			2.1	ug/m3	TO-15
Ethylbenzene	4.2			0.60	ppb v/v	TO-15
Ethylbenzene	18			2.6	ug/m3	TO-15
Freon TF	1.9			0.60	ppb v/v	TO-15
Freon TF	14			4.6	ug/m3	TO-15
m,p-Xylene	13			1.5	ppb v/v	TO-15
m,p-Xylene	56			6.5	ug/m3	TO-15
Methyl Butyl Ketone (2-Hexanone)	1.5			1.5	ppb v/v	TO-15
Methyl Butyl Ketone (2-Hexanone)	6.3			6.1	ug/m3	TO-15
Methyl Ethyl Ketone	16			1.5	ppb v/v	TO-15
Methyl Ethyl Ketone	46			4.4	ug/m3	TO-15
n-Heptane	2.0			0.60	ppb v/v	TO-15
n-Heptane	8.0			2.5	ug/m3	TO-15
n-Hexane	3.4			0.60	ppb v/v	TO-15
n-Hexane	12			2.1	ug/m3	TO-15
Tetrahydrofuran	18			15	ppb v/v	TO-15
Tetrahydrofuran	54			44	ug/m3	TO-15
Toluene	15			0.60	ppb v/v	TO-15
Toluene	58			2.3	ug/m3	TO-15
Xylene (total)	17			0.60	ppb v/v	TO-15
Xylene (total)	73			2.6	ug/m3	TO-15
Xylene, o-	3.7			0.60	ppb v/v	TO-15
Xylene, o-	16			2.6	ug/m3	TO-15

## METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 200-28653-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Air</b>			
Volatile Organic Compounds in Ambient Air Collection via Summa Canister	TAL BUR TAL BUR	EPA TO-15	Summa Canister

**Lab References:**

TAL BUR = TestAmerica Burlington

**Method References:**

EPA = US Environmental Protection Agency

## METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 200-28653-1

Method	Analyst	Analyst ID
EPA TO-15	Daigle, Paul A	PAD

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS1**

Lab Sample ID: 200-28653-1

Date Sampled: 06/26/2015 1215

Client Matrix: Air

Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_12.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1746			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1746			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	20		0.20	0.20
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
1,1,2-Trichloroethane	0.20	U	0.20	0.20
1,1-Dichloroethane	5.2		0.20	0.20
1,1-Dichloroethene	0.62		0.20	0.20
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
1,2,4-Trimethylbenzene	2.0		0.20	0.20
1,2-Dibromoethane	0.20	U	0.20	0.20
1,2-Dichlorobenzene	0.20	U	0.20	0.20
1,2-Dichloroethane	0.20	U	0.20	0.20
1,2-Dichloroethene, Total	1.8		0.20	0.20
1,2-Dichloropropane	0.20	U	0.20	0.20
1,2-Dichlortetrafluoroethane	0.20	U	0.20	0.20
1,3,5-Trimethylbenzene	0.57		0.20	0.20
1,3-Butadiene	0.20	U	0.20	0.20
1,3-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dioxane	5.0	U	5.0	5.0
2,2,4-Trimethylpentane	0.20	U	0.20	0.20
2-Chlorotoluene	0.20	U	0.20	0.20
3-Chloropropene	0.50	U	0.50	0.50
4-Ethyltoluene	0.60		0.20	0.20
Acetone	25		5.0	5.0
Benzene	0.49		0.20	0.20
Bromodichloromethane	0.46		0.20	0.20
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.20
Bromoform	0.20	U	0.20	0.20
Bromomethane	0.20	U	0.20	0.20
Carbon disulfide	20		0.50	0.50
Carbon tetrachloride	0.20	U	0.20	0.20
Chlorobenzene	0.20	U	0.20	0.20
Chloroethane	0.50	U	0.50	0.50
Chloroform	9.1		0.20	0.20
Chloromethane	0.50	U	0.50	0.50
cis-1,2-Dichloroethene	1.8		0.20	0.20
cis-1,3-Dichloropropene	0.20	U	0.20	0.20
Cyclohexane	0.20	U	0.20	0.20
Dibromochloromethane	0.20	U	0.20	0.20
Dichlorodifluoromethane	0.50	U	0.50	0.50
Ethylbenzene	1.1		0.20	0.20
Freon TF	18		0.20	0.20
Hexachlorobutadiene	0.20	U	0.20	0.20
Isopropyl alcohol	5.0	U	5.0	5.0
m,p-Xylene	4.7		0.50	0.50
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
Methyl Ethyl Ketone	1.0		0.50	0.50

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS1**Lab Sample ID: 200-28653-1  
Client Matrix: AirDate Sampled: 06/26/2015 1215  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_12.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1746			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1746			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	0.50	U	0.50	0.50
Methyl tert-butyl ether	0.20	U	0.20	0.20
Methylene Chloride	0.50	U	0.50	0.50
n-Heptane	0.37		0.20	0.20
n-Hexane	0.71		0.20	0.20
Styrene	0.20	U	0.20	0.20
tert-Butyl alcohol	5.0	U	5.0	5.0
Tetrachloroethene	0.20	U	0.20	0.20
Tetrahydrofuran	5.0	U	5.0	5.0
Toluene	3.7		0.20	0.20
trans-1,2-Dichloroethene	0.20	U	0.20	0.20
trans-1,3-Dichloropropene	0.20	U	0.20	0.20
Trichloroethene	1.5		0.20	0.20
Trichlorofluoromethane	0.24		0.20	0.20
Vinyl chloride	0.20	U	0.20	0.20
Xylene (total)	6.3		0.20	0.20
Xylene, o-	1.6		0.20	0.20

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	110		1.1	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4
1,1,2-Trichloroethane	1.1	U	1.1	1.1
1,1-Dichloroethane	21		0.81	0.81
1,1-Dichloroethene	2.5		0.79	0.79
1,2,4-Trichlorobenzene	3.7	U	3.7	3.7
1,2,4-Trimethylbenzene	10		0.98	0.98
1,2-Dibromoethane	1.5	U	1.5	1.5
1,2-Dichlorobenzene	1.2	U	1.2	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81
1,2-Dichloroethene, Total	7.1		0.79	0.79
1,2-Dichloropropane	0.92	U	0.92	0.92
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	1.4
1,3,5-Trimethylbenzene	2.8		0.98	0.98
1,3-Butadiene	0.44	U	0.44	0.44
1,3-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dioxane	18	U	18	18
2,2,4-Trimethylpentane	0.93	U	0.93	0.93
2-Chlorotoluene	1.0	U	1.0	1.0
3-Chloropropene	1.6	U	1.6	1.6
4-Ethyltoluene	3.0		0.98	0.98
Acetone	60		12	12
Benzene	1.6		0.64	0.64
Bromodichloromethane	3.1		1.3	1.3
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.87
Bromoform	2.1	U	2.1	2.1

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS1**

Lab Sample ID: 200-28653-1

Date Sampled: 06/26/2015 1215

Client Matrix: Air

Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_12.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1746			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1746			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	0.78	U	0.78	0.78
Carbon disulfide	62		1.6	1.6
Carbon tetrachloride	1.3	U	1.3	1.3
Chlorobenzene	0.92	U	0.92	0.92
Chloroethane	1.3	U	1.3	1.3
Chloroform	45		0.98	0.98
Chloromethane	1.0	U	1.0	1.0
cis-1,2-Dichloroethene	7.2		0.79	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91
Cyclohexane	0.69	U	0.69	0.69
Dibromochloromethane	1.7	U	1.7	1.7
Dichlorodifluoromethane	2.5	U	2.5	2.5
Ethylbenzene	4.8		0.87	0.87
Freon TF	140		1.5	1.5
Hexachlorobutadiene	2.1	U	2.1	2.1
Isopropyl alcohol	12	U	12	12
m,p-Xylene	20		2.2	2.2
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	2.0
Methyl Ethyl Ketone	3.1		1.5	1.5
methyl isobutyl ketone	2.0	U	2.0	2.0
Methyl tert-butyl ether	0.72	U	0.72	0.72
Methylene Chloride	1.7	U	1.7	1.7
n-Heptane	1.5		0.82	0.82
n-Hexane	2.5		0.70	0.70
Styrene	0.85	U	0.85	0.85
tert-Butyl alcohol	15	U	15	15
Tetrachloroethene	1.4	U	1.4	1.4
Tetrahydrofuran	15	U	15	15
Toluene	14		0.75	0.75
trans-1,2-Dichloroethene	0.79	U	0.79	0.79
trans-1,3-Dichloropropene	0.91	U	0.91	0.91
Trichloroethene	8.2		1.1	1.1
Trichlorofluoromethane	1.4		1.1	1.1
Vinyl chloride	0.51	U	0.51	0.51
Xylene (total)	27		0.87	0.87
Xylene, o-	6.9		0.87	0.87

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: AAS-1

Lab Sample ID: 200-28653-2  
Client Matrix: AirDate Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_13.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1833			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1833			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	0.20	U	0.20	0.20
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
1,1,2-Trichloroethane	0.20	U	0.20	0.20
1,1-Dichloroethane	0.20	U	0.20	0.20
1,1-Dichloroethene	0.20	U	0.20	0.20
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
1,2-Dibromoethane	0.20	U	0.20	0.20
1,2-Dichlorobenzene	0.20	U	0.20	0.20
1,2-Dichloroethane	0.20	U	0.20	0.20
1,2-Dichloroethene, Total	0.20	U	0.20	0.20
1,2-Dichloropropane	0.20	U	0.20	0.20
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
1,3-Butadiene	0.20	U	0.20	0.20
1,3-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dioxane	5.0	U	5.0	5.0
2,2,4-Trimethylpentane	0.20	U	0.20	0.20
2-Chlorotoluene	0.20	U	0.20	0.20
3-Chloropropene	0.50	U	0.50	0.50
4-Ethyltoluene	0.20	U	0.20	0.20
Acetone	5.0	U	5.0	5.0
Benzene	0.20	U	0.20	0.20
Bromodichloromethane	0.20	U	0.20	0.20
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.20
Bromoform	0.20	U	0.20	0.20
Bromomethane	0.20	U	0.20	0.20
Carbon disulfide	0.50	U	0.50	0.50
Carbon tetrachloride	0.20	U	0.20	0.20
Chlorobenzene	0.20	U	0.20	0.20
Chloroethane	0.50	U	0.50	0.50
Chloroform	0.20	U	0.20	0.20
Chloromethane	0.51		0.50	0.50
cis-1,2-Dichloroethene	0.20	U	0.20	0.20
cis-1,3-Dichloropropene	0.20	U	0.20	0.20
Cyclohexane	0.20	U	0.20	0.20
Dibromochloromethane	0.20	U	0.20	0.20
Dichlorodifluoromethane	0.50	U	0.50	0.50
Ethylbenzene	0.20	U	0.20	0.20
Freon TF	0.20	U	0.20	0.20
Hexachlorobutadiene	0.20	U	0.20	0.20
Isopropyl alcohol	5.0	U	5.0	5.0
m,p-Xylene	0.50	U	0.50	0.50
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
Methyl Ethyl Ketone	0.50		0.50	0.50

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID:** AAS-1

Lab Sample ID: 200-28653-2  
Client Matrix: Air

Date Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_13.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1833			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1833			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	0.50	U	0.50	0.50
Methyl tert-butyl ether	0.20	U	0.20	0.20
Methylene Chloride	0.50	U	0.50	0.50
n-Heptane	0.20	U	0.20	0.20
n-Hexane	0.20	U	0.20	0.20
Styrene	0.20	U	0.20	0.20
tert-Butyl alcohol	5.0	U	5.0	5.0
Tetrachloroethene	0.20	U	0.20	0.20
Tetrahydrofuran	5.0	U	5.0	5.0
Toluene	0.20	U	0.20	0.20
trans-1,2-Dichloroethene	0.20	U	0.20	0.20
trans-1,3-Dichloropropene	0.20	U	0.20	0.20
Trichloroethene	0.20	U	0.20	0.20
Trichlorofluoromethane	0.20	U	0.20	0.20
Vinyl chloride	0.20	U	0.20	0.20
Xylene (total)	0.20	U	0.20	0.20
Xylene, o-	0.20	U	0.20	0.20

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4
1,1,2-Trichloroethane	1.1	U	1.1	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79
1,2,4-Trichlorobenzene	3.7	U	3.7	3.7
1,2,4-Trimethylbenzene	0.98	U	0.98	0.98
1,2-Dibromoethane	1.5	U	1.5	1.5
1,2-Dichlorobenzene	1.2	U	1.2	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81
1,2-Dichloroethene, Total	0.79	U	0.79	0.79
1,2-Dichloropropane	0.92	U	0.92	0.92
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	1.4
1,3,5-Trimethylbenzene	0.98	U	0.98	0.98
1,3-Butadiene	0.44	U	0.44	0.44
1,3-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dioxane	18	U	18	18
2,2,4-Trimethylpentane	0.93	U	0.93	0.93
2-Chlorotoluene	1.0	U	1.0	1.0
3-Chloropropene	1.6	U	1.6	1.6
4-Ethyltoluene	0.98	U	0.98	0.98
Acetone	12	U	12	12
Benzene	0.64	U	0.64	0.64
Bromodichloromethane	1.3	U	1.3	1.3
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.87
Bromoform	2.1	U	2.1	2.1

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: AAS-1

Lab Sample ID: 200-28653-2  
Client Matrix: Air

Date Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_13.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1833			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1833			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	0.78	U	0.78	0.78
Carbon disulfide	1.6	U	1.6	1.6
Carbon tetrachloride	1.3	U	1.3	1.3
Chlorobenzene	0.92	U	0.92	0.92
Chloroethane	1.3	U	1.3	1.3
Chloroform	0.98	U	0.98	0.98
Chloromethane	1.1	U	1.0	1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91
Cyclohexane	0.69	U	0.69	0.69
Dibromochloromethane	1.7	U	1.7	1.7
Dichlorodifluoromethane	2.5	U	2.5	2.5
Ethylbenzene	0.87	U	0.87	0.87
Freon TF	1.5	U	1.5	1.5
Hexachlorobutadiene	2.1	U	2.1	2.1
Isopropyl alcohol	12	U	12	12
m,p-Xylene	2.2	U	2.2	2.2
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	2.0
Methyl Ethyl Ketone	1.5	U	1.5	1.5
methyl isobutyl ketone	2.0	U	2.0	2.0
Methyl tert-butyl ether	0.72	U	0.72	0.72
Methylene Chloride	1.7	U	1.7	1.7
n-Heptane	0.82	U	0.82	0.82
n-Hexane	0.70	U	0.70	0.70
Styrene	0.85	U	0.85	0.85
tert-Butyl alcohol	15	U	15	15
Tetrachloroethene	1.4	U	1.4	1.4
Tetrahydrofuran	15	U	15	15
Toluene	0.75	U	0.75	0.75
trans-1,2-Dichloroethene	0.79	U	0.79	0.79
trans-1,3-Dichloropropene	0.91	U	0.91	0.91
Trichloroethene	1.1	U	1.1	1.1
Trichlorofluoromethane	1.1	U	1.1	1.1
Vinyl chloride	0.51	U	0.51	0.51
Xylene (total)	0.87	U	0.87	0.87
Xylene, o-	0.87	U	0.87	0.87

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID: DUPLICATE**Lab Sample ID: 200-28653-3FD  
Client Matrix: AirDate Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300**TO-15 Volatile Organic Compounds in Ambient Air**

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1921			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1921			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	0.20	U	0.20	0.20
1,1,2,2-Tetrachloroethane	0.20	U	0.20	0.20
1,1,2-Trichloroethane	0.20	U	0.20	0.20
1,1-Dichloroethane	0.20	U	0.20	0.20
1,1-Dichloroethene	0.20	U	0.20	0.20
1,2,4-Trichlorobenzene	0.50	U	0.50	0.50
1,2,4-Trimethylbenzene	0.20	U	0.20	0.20
1,2-Dibromoethane	0.20	U	0.20	0.20
1,2-Dichlorobenzene	0.20	U	0.20	0.20
1,2-Dichloroethane	0.20	U	0.20	0.20
1,2-Dichloroethene, Total	0.20	U	0.20	0.20
1,2-Dichloropropane	0.20	U	0.20	0.20
1,2-Dichlorotetrafluoroethane	0.20	U	0.20	0.20
1,3,5-Trimethylbenzene	0.20	U	0.20	0.20
1,3-Butadiene	0.20	U	0.20	0.20
1,3-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dichlorobenzene	0.20	U	0.20	0.20
1,4-Dioxane	5.0	U	5.0	5.0
2,2,4-Trimethylpentane	0.20	U	0.20	0.20
2-Chlorotoluene	0.20	U	0.20	0.20
3-Chloropropene	0.50	U	0.50	0.50
4-Ethyltoluene	0.20	U	0.20	0.20
Acetone	7.5		5.0	5.0
Benzene	0.20	U	0.20	0.20
Bromodichloromethane	0.20	U	0.20	0.20
Bromoethene(Vinyl Bromide)	0.20	U	0.20	0.20
Bromoform	0.20	U	0.20	0.20
Bromomethane	0.20	U	0.20	0.20
Carbon disulfide	1.5		0.50	0.50
Carbon tetrachloride	0.20	U	0.20	0.20
Chlorobenzene	0.20	U	0.20	0.20
Chloroethane	0.50	U	0.50	0.50
Chloroform	0.20	U	0.20	0.20
Chloromethane	0.50	U	0.50	0.50
cis-1,2-Dichloroethene	0.20	U	0.20	0.20
cis-1,3-Dichloropropene	0.20	U	0.20	0.20
Cyclohexane	0.20	U	0.20	0.20
Dibromochloromethane	0.20	U	0.20	0.20
Dichlorodifluoromethane	0.50	U	0.50	0.50
Ethylbenzene	0.20	U	0.20	0.20
Freon TF	0.20	U	0.20	0.20
Hexachlorobutadiene	0.20	U	0.20	0.20
Isopropyl alcohol	5.0	U	5.0	5.0
m,p-Xylene	0.50	U	0.50	0.50
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50	0.50
Methyl Ethyl Ketone	1.1		0.50	0.50

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID:** DUPLICATE

Lab Sample ID: 200-28653-3FD  
Client Matrix: Air

Date Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1921			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1921			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	0.50	U	0.50	0.50
Methyl tert-butyl ether	0.20	U	0.20	0.20
Methylene Chloride	0.50	U	0.50	0.50
n-Heptane	0.20	U	0.20	0.20
n-Hexane	0.20	U	0.20	0.20
Styrene	0.20	U	0.20	0.20
tert-Butyl alcohol	5.0	U	5.0	5.0
Tetrachloroethene	0.20	U	0.20	0.20
Tetrahydrofuran	5.0	U	5.0	5.0
Toluene	0.20	U	0.20	0.20
trans-1,2-Dichloroethene	0.20	U	0.20	0.20
trans-1,3-Dichloropropene	0.20	U	0.20	0.20
Trichloroethene	0.20	U	0.20	0.20
Trichlorofluoromethane	0.20	U	0.20	0.20
Vinyl chloride	0.20	U	0.20	0.20
Xylene (total)	0.20	U	0.20	0.20
Xylene, o-	0.20	U	0.20	0.20

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	1.1	U	1.1	1.1
1,1,2,2-Tetrachloroethane	1.4	U	1.4	1.4
1,1,2-Trichloroethane	1.1	U	1.1	1.1
1,1-Dichloroethane	0.81	U	0.81	0.81
1,1-Dichloroethene	0.79	U	0.79	0.79
1,2,4-Trichlorobenzene	3.7	U	3.7	3.7
1,2,4-Trimethylbenzene	0.98	U	0.98	0.98
1,2-Dibromoethane	1.5	U	1.5	1.5
1,2-Dichlorobenzene	1.2	U	1.2	1.2
1,2-Dichloroethane	0.81	U	0.81	0.81
1,2-Dichloroethene, Total	0.79	U	0.79	0.79
1,2-Dichloropropane	0.92	U	0.92	0.92
1,2-Dichlorotetrafluoroethane	1.4	U	1.4	1.4
1,3,5-Trimethylbenzene	0.98	U	0.98	0.98
1,3-Butadiene	0.44	U	0.44	0.44
1,3-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dichlorobenzene	1.2	U	1.2	1.2
1,4-Dioxane	18	U	18	18
2,2,4-Trimethylpentane	0.93	U	0.93	0.93
2-Chlorotoluene	1.0	U	1.0	1.0
3-Chloropropene	1.6	U	1.6	1.6
4-Ethyltoluene	0.98	U	0.98	0.98
Acetone	18		12	12
Benzene	0.64	U	0.64	0.64
Bromodichloromethane	1.3	U	1.3	1.3
Bromoethene(Vinyl Bromide)	0.87	U	0.87	0.87
Bromoform	2.1	U	2.1	2.1

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: DUPLICATE

Lab Sample ID: 200-28653-3FD  
Client Matrix: Air

Date Sampled: 06/26/2015 1210  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_14.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	07/02/2015 1921			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 1921			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	0.78	U	0.78	0.78
Carbon disulfide	4.8		1.6	1.6
Carbon tetrachloride	1.3	U	1.3	1.3
Chlorobenzene	0.92	U	0.92	0.92
Chloroethane	1.3	U	1.3	1.3
Chloroform	0.98	U	0.98	0.98
Chloromethane	1.0	U	1.0	1.0
cis-1,2-Dichloroethene	0.79	U	0.79	0.79
cis-1,3-Dichloropropene	0.91	U	0.91	0.91
Cyclohexane	0.69	U	0.69	0.69
Dibromochloromethane	1.7	U	1.7	1.7
Dichlorodifluoromethane	2.5	U	2.5	2.5
Ethylbenzene	0.87	U	0.87	0.87
Freon TF	1.5	U	1.5	1.5
Hexachlorobutadiene	2.1	U	2.1	2.1
Isopropyl alcohol	12	U	12	12
m,p-Xylene	2.2	U	2.2	2.2
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	2.0
Methyl Ethyl Ketone	3.2		1.5	1.5
methyl isobutyl ketone	2.0	U	2.0	2.0
Methyl tert-butyl ether	0.72	U	0.72	0.72
Methylene Chloride	1.7	U	1.7	1.7
n-Heptane	0.82	U	0.82	0.82
n-Hexane	0.70	U	0.70	0.70
Styrene	0.85	U	0.85	0.85
tert-Butyl alcohol	15	U	15	15
Tetrachloroethene	1.4	U	1.4	1.4
Tetrahydrofuran	15	U	15	15
Toluene	0.75	U	0.75	0.75
trans-1,2-Dichloroethene	0.79	U	0.79	0.79
trans-1,3-Dichloropropene	0.91	U	0.91	0.91
Trichloroethene	1.1	U	1.1	1.1
Trichlorofluoromethane	1.1	U	1.1	1.1
Vinyl chloride	0.51	U	0.51	0.51
Xylene (total)	0.87	U	0.87	0.87
Xylene, o-	0.87	U	0.87	0.87

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: SVI-SS2

Lab Sample ID: 200-28653-4  
Client Matrix: AirDate Sampled: 06/26/2015 1350  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_18.D
Dilution:	3.51			Initial Weight/Volume:	57 mL
Analysis Date:	07/02/2015 2230			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 2230			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	16		0.70	0.70
1,1,2,2-Tetrachloroethane	0.70	U	0.70	0.70
1,1,2-Trichloroethane	0.70	U	0.70	0.70
1,1-Dichloroethane	1.2		0.70	0.70
1,1-Dichloroethene	0.70	U	0.70	0.70
1,2,4-Trichlorobenzene	1.8	U	1.8	1.8
1,2,4-Trimethylbenzene	2.5		0.70	0.70
1,2-Dibromoethane	0.70	U	0.70	0.70
1,2-Dichlorobenzene	0.70	U	0.70	0.70
1,2-Dichloroethane	0.70	U	0.70	0.70
1,2-Dichloroethene, Total	0.70	U	0.70	0.70
1,2-Dichloropropane	0.70	U	0.70	0.70
1,2-Dichlorotetrafluoroethane	0.70	U	0.70	0.70
1,3,5-Trimethylbenzene	1.1		0.70	0.70
1,3-Butadiene	0.70	U	0.70	0.70
1,3-Dichlorobenzene	0.70	U	0.70	0.70
1,4-Dichlorobenzene	0.70	U	0.70	0.70
1,4-Dioxane	18	U	18	18
2,2,4-Trimethylpentane	0.78		0.70	0.70
2-Chlorotoluene	0.70	U	0.70	0.70
3-Chloropropene	1.8	U	1.8	1.8
4-Ethyltoluene	1.1		0.70	0.70
Acetone	85		18	18
Benzene	2.5		0.70	0.70
Bromodichloromethane	2.9		0.70	0.70
Bromoethene(Vinyl Bromide)	0.70	U	0.70	0.70
Bromoform	0.70	U	0.70	0.70
Bromomethane	0.70	U	0.70	0.70
Carbon disulfide	59		1.8	1.8
Carbon tetrachloride	0.70	U	0.70	0.70
Chlorobenzene	0.70	U	0.70	0.70
Chloroethane	1.8	U	1.8	1.8
Chloroform	27		0.70	0.70
Chloromethane	1.8	U	1.8	1.8
cis-1,2-Dichloroethene	0.70	U	0.70	0.70
cis-1,3-Dichloropropene	0.70	U	0.70	0.70
Cyclohexane	0.70	U	0.70	0.70
Dibromochloromethane	0.70	U	0.70	0.70
Dichlorodifluoromethane	1.8	U	1.8	1.8
Ethylbenzene	12		0.70	0.70
Freon TF	15		0.70	0.70
Hexachlorobutadiene	0.70	U	0.70	0.70
Isopropyl alcohol	18	U	18	18
m,p-Xylene	38		1.8	1.8
Methyl Butyl Ketone (2-Hexanone)	1.8	U	1.8	1.8
Methyl Ethyl Ketone	3.4		1.8	1.8

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID:** **SVI-SS2**

Lab Sample ID: 200-28653-4  
Client Matrix: Air

Date Sampled: 06/26/2015 1350  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_18.D
Dilution:	3.51			Initial Weight/Volume:	57 mL
Analysis Date:	07/02/2015 2230			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 2230			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	1.8	U	1.8	1.8
Methyl tert-butyl ether	0.70	U	0.70	0.70
Methylene Chloride	1.8	U	1.8	1.8
n-Heptane	2.4		0.70	0.70
n-Hexane	2.9		0.70	0.70
Styrene	0.70	U	0.70	0.70
tert-Butyl alcohol	18	U	18	18
Tetrachloroethene	0.70	U	0.70	0.70
Tetrahydrofuran	18	U	18	18
Toluene	30		0.70	0.70
trans-1,2-Dichloroethene	0.70	U	0.70	0.70
trans-1,3-Dichloropropene	0.70	U	0.70	0.70
Trichloroethene	1.3		0.70	0.70
Trichlorofluoromethane	0.70	U	0.70	0.70
Vinyl chloride	0.70	U	0.70	0.70
Xylene (total)	49		0.70	0.70
Xylene, o-	11		0.70	0.70

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	87		3.8	3.8
1,1,2,2-Tetrachloroethane	4.8	U	4.8	4.8
1,1,2-Trichloroethane	3.8	U	3.8	3.8
1,1-Dichloroethane	4.9		2.8	2.8
1,1-Dichloroethene	2.8	U	2.8	2.8
1,2,4-Trichlorobenzene	13	U	13	13
1,2,4-Trimethylbenzene	12		3.5	3.5
1,2-Dibromoethane	5.4	U	5.4	5.4
1,2-Dichlorobenzene	4.2	U	4.2	4.2
1,2-Dichloroethane	2.8	U	2.8	2.8
1,2-Dichloroethene, Total	2.8	U	2.8	2.8
1,2-Dichloropropane	3.2	U	3.2	3.2
1,2-Dichlorotetrafluoroethane	4.9	U	4.9	4.9
1,3,5-Trimethylbenzene	5.6		3.5	3.5
1,3-Butadiene	1.6	U	1.6	1.6
1,3-Dichlorobenzene	4.2	U	4.2	4.2
1,4-Dichlorobenzene	4.2	U	4.2	4.2
1,4-Dioxane	63	U	63	63
2,2,4-Trimethylpentane	3.6		3.3	3.3
2-Chlorotoluene	3.6	U	3.6	3.6
3-Chloropropene	5.5	U	5.5	5.5
4-Ethyltoluene	5.6		3.5	3.5
Acetone	200		42	42
Benzene	7.8		2.2	2.2
Bromodichloromethane	20		4.7	4.7
Bromoethene(Vinyl Bromide)	3.1	U	3.1	3.1
Bromoform	7.3	U	7.3	7.3

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS2**

Lab Sample ID: 200-28653-4  
Client Matrix: Air

Date Sampled: 06/26/2015 1350  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_18.D
Dilution:	3.51			Initial Weight/Volume:	57 mL
Analysis Date:	07/02/2015 2230			Final Weight/Volume:	200 mL
Prep Date:	07/02/2015 2230			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	2.7	U	2.7	2.7
Carbon disulfide	180		5.5	5.5
Carbon tetrachloride	4.4	U	4.4	4.4
Chlorobenzene	3.2	U	3.2	3.2
Chloroethane	4.6	U	4.6	4.6
Chloroform	130		3.4	3.4
Chloromethane	3.6	U	3.6	3.6
cis-1,2-Dichloroethene	2.8	U	2.8	2.8
cis-1,3-Dichloropropene	3.2	U	3.2	3.2
Cyclohexane	2.4	U	2.4	2.4
Dibromochloromethane	6.0	U	6.0	6.0
Dichlorodifluoromethane	8.7	U	8.7	8.7
Ethylbenzene	52		3.0	3.0
Freon TF	110		5.4	5.4
Hexachlorobutadiene	7.5	U	7.5	7.5
Isopropyl alcohol	43	U	43	43
m,p-Xylene	170		7.6	7.6
Methyl Butyl Ketone (2-Hexanone)	7.2	U	7.2	7.2
Methyl Ethyl Ketone	10		5.2	5.2
methyl isobutyl ketone	7.2	U	7.2	7.2
Methyl tert-butyl ether	2.5	U	2.5	2.5
Methylene Chloride	6.1	U	6.1	6.1
n-Heptane	10		2.9	2.9
n-Hexane	10		2.5	2.5
Styrene	3.0	U	3.0	3.0
tert-Butyl alcohol	53	U	53	53
Tetrachloroethene	4.8	U	4.8	4.8
Tetrahydrofuran	52	U	52	52
Toluene	110		2.6	2.6
trans-1,2-Dichloroethene	2.8	U	2.8	2.8
trans-1,3-Dichloropropene	3.2	U	3.2	3.2
Trichloroethene	7.0		3.8	3.8
Trichlorofluoromethane	3.9	U	3.9	3.9
Vinyl chloride	1.8	U	1.8	1.8
Xylene (total)	210		3.0	3.0
Xylene, o-	49		3.0	3.0

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS3**Lab Sample ID: 200-28653-5  
Client Matrix: AirDate Sampled: 06/26/2015 1355  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_24.D
Dilution:	3.57			Initial Weight/Volume:	56 mL
Analysis Date:	07/03/2015 0336			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0336			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	0.71	U	0.71	0.71
1,1,2,2-Tetrachloroethane	0.71	U	0.71	0.71
1,1,2-Trichloroethane	0.71	U	0.71	0.71
1,1-Dichloroethane	0.71	U	0.71	0.71
1,1-Dichloroethene	0.71	U	0.71	0.71
1,2,4-Trichlorobenzene	1.8	U	1.8	1.8
1,2,4-Trimethylbenzene	2.7		0.71	0.71
1,2-Dibromoethane	0.71	U	0.71	0.71
1,2-Dichlorobenzene	0.71	U	0.71	0.71
1,2-Dichloroethane	0.71	U	0.71	0.71
1,2-Dichloroethene, Total	0.71	U	0.71	0.71
1,2-Dichloropropane	0.71	U	0.71	0.71
1,2-Dichlorotetrafluoroethane	0.71	U	0.71	0.71
1,3,5-Trimethylbenzene	1.4		0.71	0.71
1,3-Butadiene	0.71	U	0.71	0.71
1,3-Dichlorobenzene	0.71	U	0.71	0.71
1,4-Dichlorobenzene	0.71	U	0.71	0.71
1,4-Dioxane	18	U	18	18
2,2,4-Trimethylpentane	1.0		0.71	0.71
2-Chlorotoluene	0.71	U	0.71	0.71
3-Chloropropene	1.8	U	1.8	1.8
4-Ethyltoluene	1.4		0.71	0.71
Acetone	98		18	18
Benzene	3.3		0.71	0.71
Bromodichloromethane	5.4		0.71	0.71
Bromoethene(Vinyl Bromide)	0.71	U	0.71	0.71
Bromoform	0.71	U	0.71	0.71
Bromomethane	0.71	U	0.71	0.71
Carbon disulfide	39		1.8	1.8
Carbon tetrachloride	0.71	U	0.71	0.71
Chlorobenzene	0.71	U	0.71	0.71
Chloroethane	1.8	U	1.8	1.8
Chloroform	35		0.71	0.71
Chloromethane	1.8	U	1.8	1.8
cis-1,2-Dichloroethene	0.71	U	0.71	0.71
cis-1,3-Dichloropropene	0.71	U	0.71	0.71
Cyclohexane	1.0		0.71	0.71
Dibromochloromethane	0.71	U	0.71	0.71
Dichlorodifluoromethane	1.8	U	1.8	1.8
Ethylbenzene	8.4		0.71	0.71
Freon TF	0.71	U	0.71	0.71
Hexachlorobutadiene	0.71	U	0.71	0.71
Isopropyl alcohol	18	U	18	18
m,p-Xylene	29		1.8	1.8
Methyl Butyl Ketone (2-Hexanone)	3.5		1.8	1.8
Methyl Ethyl Ketone	7.2		1.8	1.8

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS3**Lab Sample ID: 200-28653-5  
Client Matrix: AirDate Sampled: 06/26/2015 1355  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_24.D
Dilution:	3.57			Initial Weight/Volume:	56 mL
Analysis Date:	07/03/2015 0336			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0336			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	1.8	U	1.8	1.8
Methyl tert-butyl ether	0.71	U	0.71	0.71
Methylene Chloride	1.8	U	1.8	1.8
n-Heptane	2.7		0.71	0.71
n-Hexane	2.9		0.71	0.71
Styrene	0.71	U	0.71	0.71
tert-Butyl alcohol	18	U	18	18
Tetrachloroethene	0.71	U	0.71	0.71
Tetrahydrofuran	18	U	18	18
Toluene	24		0.71	0.71
trans-1,2-Dichloroethene	0.71	U	0.71	0.71
trans-1,3-Dichloropropene	0.71	U	0.71	0.71
Trichloroethene	0.71	U	0.71	0.71
Trichlorofluoromethane	0.71	U	0.71	0.71
Vinyl chloride	0.71	U	0.71	0.71
Xylene (total)	38		0.71	0.71
Xylene, o-	8.9		0.71	0.71

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	3.9	U	3.9	3.9
1,1,2,2-Tetrachloroethane	4.9	U	4.9	4.9
1,1,2-Trichloroethane	3.9	U	3.9	3.9
1,1-Dichloroethane	2.9	U	2.9	2.9
1,1-Dichloroethene	2.8	U	2.8	2.8
1,2,4-Trichlorobenzene	13	U	13	13
1,2,4-Trimethylbenzene	13		3.5	3.5
1,2-Dibromoethane	5.5	U	5.5	5.5
1,2-Dichlorobenzene	4.3	U	4.3	4.3
1,2-Dichloroethane	2.9	U	2.9	2.9
1,2-Dichloroethene, Total	2.8	U	2.8	2.8
1,2-Dichloropropane	3.3	U	3.3	3.3
1,2-Dichlorotetrafluoroethane	5.0	U	5.0	5.0
1,3,5-Trimethylbenzene	6.7		3.5	3.5
1,3-Butadiene	1.6	U	1.6	1.6
1,3-Dichlorobenzene	4.3	U	4.3	4.3
1,4-Dichlorobenzene	4.3	U	4.3	4.3
1,4-Dioxane	64	U	64	64
2,2,4-Trimethylpentane	4.8		3.3	3.3
2-Chlorotoluene	3.7	U	3.7	3.7
3-Chloropropene	5.6	U	5.6	5.6
4-Ethyltoluene	6.9		3.5	3.5
Acetone	230		42	42
Benzene	10		2.3	2.3
Bromodichloromethane	36		4.8	4.8
Bromoethene(Vinyl Bromide)	3.1	U	3.1	3.1
Bromoform	7.4	U	7.4	7.4

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS3**

Lab Sample ID: 200-28653-5  
Client Matrix: Air

Date Sampled: 06/26/2015 1355  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_24.D
Dilution:	3.57			Initial Weight/Volume:	56 mL
Analysis Date:	07/03/2015 0336			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0336			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	2.8	U	2.8	2.8
Carbon disulfide	120		5.6	5.6
Carbon tetrachloride	4.5	U	4.5	4.5
Chlorobenzene	3.3	U	3.3	3.3
Chloroethane	4.7	U	4.7	4.7
Chloroform	170		3.5	3.5
Chloromethane	3.7	U	3.7	3.7
cis-1,2-Dichloroethene	2.8	U	2.8	2.8
cis-1,3-Dichloropropene	3.2	U	3.2	3.2
Cyclohexane	3.5		2.5	2.5
Dibromochloromethane	6.1	U	6.1	6.1
Dichlorodifluoromethane	8.8	U	8.8	8.8
Ethylbenzene	36		3.1	3.1
Freon TF	5.5	U	5.5	5.5
Hexachlorobutadiene	7.6	U	7.6	7.6
Isopropyl alcohol	44	U	44	44
m,p-Xylene	120		7.8	7.8
Methyl Butyl Ketone (2-Hexanone)	14		7.3	7.3
Methyl Ethyl Ketone	21		5.3	5.3
methyl isobutyl ketone	7.3	U	7.3	7.3
Methyl tert-butyl ether	2.6	U	2.6	2.6
Methylene Chloride	6.2	U	6.2	6.2
n-Heptane	11		2.9	2.9
n-Hexane	10		2.5	2.5
Styrene	3.0	U	3.0	3.0
tert-Butyl alcohol	54	U	54	54
Tetrachloroethene	4.8	U	4.8	4.8
Tetrahydrofuran	53	U	53	53
Toluene	91		2.7	2.7
trans-1,2-Dichloroethene	2.8	U	2.8	2.8
trans-1,3-Dichloropropene	3.2	U	3.2	3.2
Trichloroethene	3.8	U	3.8	3.8
Trichlorofluoromethane	4.0	U	4.0	4.0
Vinyl chloride	1.8	U	1.8	1.8
Xylene (total)	160		3.1	3.1
Xylene, o-	39		3.1	3.1

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS4**Lab Sample ID: 200-28653-6  
Client Matrix: AirDate Sampled: 06/26/2015 1610  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_26.D
Dilution:	4.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/03/2015 0522			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0522			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	1.9		0.80	0.80
1,1,2,2-Tetrachloroethane	0.80	U	0.80	0.80
1,1,2-Trichloroethane	0.80	U	0.80	0.80
1,1-Dichloroethane	0.80	U	0.80	0.80
1,1-Dichloroethene	0.80	U	0.80	0.80
1,2,4-Trichlorobenzene	2.0	U	2.0	2.0
1,2,4-Trimethylbenzene	1.9		0.80	0.80
1,2-Dibromoethane	0.80	U	0.80	0.80
1,2-Dichlorobenzene	0.80	U	0.80	0.80
1,2-Dichloroethane	0.80	U	0.80	0.80
1,2-Dichloroethene, Total	0.80	U	0.80	0.80
1,2-Dichloropropane	0.80	U	0.80	0.80
1,2-Dichlorotetrafluoroethane	0.80	U	0.80	0.80
1,3,5-Trimethylbenzene	0.80	U	0.80	0.80
1,3-Butadiene	0.80	U	0.80	0.80
1,3-Dichlorobenzene	0.80	U	0.80	0.80
1,4-Dichlorobenzene	0.80	U	0.80	0.80
1,4-Dioxane	20	U	20	20
2,2,4-Trimethylpentane	0.80	U	0.80	0.80
2-Chlorotoluene	0.80	U	0.80	0.80
3-Chloropropene	2.0	U	2.0	2.0
4-Ethyltoluene	0.80	U	0.80	0.80
Acetone	110		20	20
Benzene	0.80	U	0.80	0.80
Bromodichloromethane	0.80	U	0.80	0.80
Bromoethene(Vinyl Bromide)	0.80	U	0.80	0.80
Bromoform	0.80	U	0.80	0.80
Bromomethane	0.80	U	0.80	0.80
Carbon disulfide	22		2.0	2.0
Carbon tetrachloride	0.80	U	0.80	0.80
Chlorobenzene	0.80	U	0.80	0.80
Chloroethane	2.0	U	2.0	2.0
Chloroform	2.5		0.80	0.80
Chloromethane	2.0	U	2.0	2.0
cis-1,2-Dichloroethene	0.80	U	0.80	0.80
cis-1,3-Dichloropropene	0.80	U	0.80	0.80
Cyclohexane	0.80	U	0.80	0.80
Dibromochloromethane	0.80	U	0.80	0.80
Dichlorodifluoromethane	2.0	U	2.0	2.0
Ethylbenzene	1.2		0.80	0.80
Freon TF	4.0		0.80	0.80
Hexachlorobutadiene	0.80	U	0.80	0.80
Isopropyl alcohol	20	U	20	20
m,p-Xylene	4.7		2.0	2.0
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0	2.0
Methyl Ethyl Ketone	3.7		2.0	2.0

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID:** **SVI-SS4**

Lab Sample ID: 200-28653-6  
Client Matrix: Air

Date Sampled: 06/26/2015 1610  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_26.D
Dilution:	4.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/03/2015 0522			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0522			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	2.0	U	2.0	2.0
Methyl tert-butyl ether	0.80	U	0.80	0.80
Methylene Chloride	2.0	U	2.0	2.0
n-Heptane	0.80	U	0.80	0.80
n-Hexane	0.97		0.80	0.80
Styrene	0.80	U	0.80	0.80
tert-Butyl alcohol	20	U	20	20
Tetrachloroethene	0.80	U	0.80	0.80
Tetrahydrofuran	20	U	20	20
Toluene	4.1		0.80	0.80
trans-1,2-Dichloroethene	0.80	U	0.80	0.80
trans-1,3-Dichloropropene	0.80	U	0.80	0.80
Trichloroethene	0.80	U	0.80	0.80
Trichlorofluoromethane	0.80	U	0.80	0.80
Vinyl chloride	0.80	U	0.80	0.80
Xylene (total)	6.3		0.80	0.80
Xylene, o-	1.6		0.80	0.80

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	10		4.4	4.4
1,1,2,2-Tetrachloroethane	5.5	U	5.5	5.5
1,1,2-Trichloroethane	4.4	U	4.4	4.4
1,1-Dichloroethane	3.2	U	3.2	3.2
1,1-Dichloroethene	3.2	U	3.2	3.2
1,2,4-Trichlorobenzene	15	U	15	15
1,2,4-Trimethylbenzene	9.2		3.9	3.9
1,2-Dibromoethane	6.1	U	6.1	6.1
1,2-Dichlorobenzene	4.8	U	4.8	4.8
1,2-Dichloroethane	3.2	U	3.2	3.2
1,2-Dichloroethene, Total	3.2	U	3.2	3.2
1,2-Dichloropropane	3.7	U	3.7	3.7
1,2-Dichlorotetrafluoroethane	5.6	U	5.6	5.6
1,3,5-Trimethylbenzene	3.9	U	3.9	3.9
1,3-Butadiene	1.8	U	1.8	1.8
1,3-Dichlorobenzene	4.8	U	4.8	4.8
1,4-Dichlorobenzene	4.8	U	4.8	4.8
1,4-Dioxane	72	U	72	72
2,2,4-Trimethylpentane	3.7	U	3.7	3.7
2-Chlorotoluene	4.1	U	4.1	4.1
3-Chloropropene	6.3	U	6.3	6.3
4-Ethyltoluene	3.9	U	3.9	3.9
Acetone	270		48	48
Benzene	2.6	U	2.6	2.6
Bromodichloromethane	5.4	U	5.4	5.4
Bromoethene(Vinyl Bromide)	3.5	U	3.5	3.5
Bromoform	8.3	U	8.3	8.3

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS4**

Lab Sample ID: 200-28653-6  
Client Matrix: Air

Date Sampled: 06/26/2015 1610  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_26.D
Dilution:	4.0			Initial Weight/Volume:	50 mL
Analysis Date:	07/03/2015 0522			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0522			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	3.1	U	3.1	3.1
Carbon disulfide	67		6.2	6.2
Carbon tetrachloride	5.0	U	5.0	5.0
Chlorobenzene	3.7	U	3.7	3.7
Chloroethane	5.3	U	5.3	5.3
Chloroform	12		3.9	3.9
Chloromethane	4.1	U	4.1	4.1
cis-1,2-Dichloroethene	3.2	U	3.2	3.2
cis-1,3-Dichloropropene	3.6	U	3.6	3.6
Cyclohexane	2.8	U	2.8	2.8
Dibromochloromethane	6.8	U	6.8	6.8
Dichlorodifluoromethane	9.9	U	9.9	9.9
Ethylbenzene	5.1		3.5	3.5
Freon TF	30		6.1	6.1
Hexachlorobutadiene	8.5	U	8.5	8.5
Isopropyl alcohol	49	U	49	49
m,p-Xylene	20		8.7	8.7
Methyl Butyl Ketone (2-Hexanone)	8.2	U	8.2	8.2
Methyl Ethyl Ketone	11		5.9	5.9
methyl isobutyl ketone	8.2	U	8.2	8.2
Methyl tert-butyl ether	2.9	U	2.9	2.9
Methylene Chloride	6.9	U	6.9	6.9
n-Heptane	3.3	U	3.3	3.3
n-Hexane	3.4		2.8	2.8
Styrene	3.4	U	3.4	3.4
tert-Butyl alcohol	61	U	61	61
Tetrachloroethene	5.4	U	5.4	5.4
Tetrahydrofuran	59	U	59	59
Toluene	15		3.0	3.0
trans-1,2-Dichloroethene	3.2	U	3.2	3.2
trans-1,3-Dichloropropene	3.6	U	3.6	3.6
Trichloroethene	4.3	U	4.3	4.3
Trichlorofluoromethane	4.5	U	4.5	4.5
Vinyl chloride	2.0	U	2.0	2.0
Xylene (total)	27		3.5	3.5
Xylene, o-	7.1		3.5	3.5

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS5**Lab Sample ID: 200-28653-8  
Client Matrix: AirDate Sampled: 06/26/2015 1400  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_27.D
Dilution:	2.99			Initial Weight/Volume:	67 mL
Analysis Date:	07/03/2015 0610			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0610			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
1,1,1-Trichloroethane	1.9		0.60	0.60
1,1,2,2-Tetrachloroethane	0.60	U	0.60	0.60
1,1,2-Trichloroethane	0.60	U	0.60	0.60
1,1-Dichloroethane	0.60	U	0.60	0.60
1,1-Dichloroethene	0.60	U	0.60	0.60
1,2,4-Trichlorobenzene	1.5	U	1.5	1.5
1,2,4-Trimethylbenzene	2.0		0.60	0.60
1,2-Dibromoethane	0.60	U	0.60	0.60
1,2-Dichlorobenzene	0.60	U	0.60	0.60
1,2-Dichloroethane	0.60	U	0.60	0.60
1,2-Dichloroethene, Total	0.60	U	0.60	0.60
1,2-Dichloropropane	0.60	U	0.60	0.60
1,2-Dichlorotetrafluoroethane	0.60	U	0.60	0.60
1,3,5-Trimethylbenzene	0.60	U	0.60	0.60
1,3-Butadiene	0.60		0.60	0.60
1,3-Dichlorobenzene	0.60	U	0.60	0.60
1,4-Dichlorobenzene	0.60	U	0.60	0.60
1,4-Dioxane	15	U	15	15
2,2,4-Trimethylpentane	0.78		0.60	0.60
2-Chlorotoluene	0.60	U	0.60	0.60
3-Chloropropene	1.5	U	1.5	1.5
4-Ethyltoluene	0.65		0.60	0.60
Acetone	87		15	15
Benzene	1.9		0.60	0.60
Bromodichloromethane	3.8		0.60	0.60
Bromoethene(Vinyl Bromide)	0.60	U	0.60	0.60
Bromoform	0.60	U	0.60	0.60
Bromomethane	0.60	U	0.60	0.60
Carbon disulfide	40		1.5	1.5
Carbon tetrachloride	0.60	U	0.60	0.60
Chlorobenzene	0.60	U	0.60	0.60
Chloroethane	1.5	U	1.5	1.5
Chloroform	18		0.60	0.60
Chloromethane	1.5	U	1.5	1.5
cis-1,2-Dichloroethene	0.60	U	0.60	0.60
cis-1,3-Dichloropropene	0.60	U	0.60	0.60
Cyclohexane	0.86		0.60	0.60
Dibromochloromethane	0.60	U	0.60	0.60
Dichlorodifluoromethane	1.5	U	1.5	1.5
Ethylbenzene	4.2		0.60	0.60
Freon TF	1.9		0.60	0.60
Hexachlorobutadiene	0.60	U	0.60	0.60
Isopropyl alcohol	15	U	15	15
m,p-Xylene	13		1.5	1.5
Methyl Butyl Ketone (2-Hexanone)	1.5		1.5	1.5
Methyl Ethyl Ketone	16		1.5	1.5

# Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

**Client Sample ID:** **SVI-SS5**

Lab Sample ID: 200-28653-8  
Client Matrix: Air

Date Sampled: 06/26/2015 1400  
Date Received: 06/27/2015 1300

## TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_27.D
Dilution:	2.99			Initial Weight/Volume:	67 mL
Analysis Date:	07/03/2015 0610			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0610			Injection Volume:	200 mL

Analyte	Result (ppb v/v)	Qualifier	RL	RL
methyl isobutyl ketone	1.5	U	1.5	1.5
Methyl tert-butyl ether	0.60	U	0.60	0.60
Methylene Chloride	1.5	U	1.5	1.5
n-Heptane	2.0		0.60	0.60
n-Hexane	3.4		0.60	0.60
Styrene	0.60	U	0.60	0.60
tert-Butyl alcohol	15	U	15	15
Tetrachloroethene	0.60	U	0.60	0.60
Tetrahydrofuran	18		15	15
Toluene	15		0.60	0.60
trans-1,2-Dichloroethene	0.60	U	0.60	0.60
trans-1,3-Dichloropropene	0.60	U	0.60	0.60
Trichloroethene	0.60	U	0.60	0.60
Trichlorofluoromethane	0.60	U	0.60	0.60
Vinyl chloride	0.60	U	0.60	0.60
Xylene (total)	17		0.60	0.60
Xylene, o-	3.7		0.60	0.60

Analyte	Result (ug/m3)	Qualifier	RL	RL
1,1,1-Trichloroethane	11		3.3	3.3
1,1,2,2-Tetrachloroethane	4.1	U	4.1	4.1
1,1,2-Trichloroethane	3.3	U	3.3	3.3
1,1-Dichloroethane	2.4	U	2.4	2.4
1,1-Dichloroethene	2.4	U	2.4	2.4
1,2,4-Trichlorobenzene	11	U	11	11
1,2,4-Trimethylbenzene	9.6		2.9	2.9
1,2-Dibromoethane	4.6	U	4.6	4.6
1,2-Dichlorobenzene	3.6	U	3.6	3.6
1,2-Dichloroethane	2.4	U	2.4	2.4
1,2-Dichloroethene, Total	2.4	U	2.4	2.4
1,2-Dichloropropane	2.8	U	2.8	2.8
1,2-Dichlorotetrafluoroethane	4.2	U	4.2	4.2
1,3,5-Trimethylbenzene	2.9	U	2.9	2.9
1,3-Butadiene	1.3		1.3	1.3
1,3-Dichlorobenzene	3.6	U	3.6	3.6
1,4-Dichlorobenzene	3.6	U	3.6	3.6
1,4-Dioxane	54	U	54	54
2,2,4-Trimethylpentane	3.6		2.8	2.8
2-Chlorotoluene	3.1	U	3.1	3.1
3-Chloropropene	4.7	U	4.7	4.7
4-Ethyltoluene	3.2		2.9	2.9
Acetone	210		36	36
Benzene	6.0		1.9	1.9
Bromodichloromethane	26		4.0	4.0
Bromoethene(Vinyl Bromide)	2.6	U	2.6	2.6
Bromoform	6.2	U	6.2	6.2

## Analytical Data

Client: AECOM, Inc.

Job Number: 200-28653-1

Client Sample ID: **SVI-SS5**

Lab Sample ID: 200-28653-8  
Client Matrix: Air

Date Sampled: 06/26/2015 1400  
Date Received: 06/27/2015 1300

### TO-15 Volatile Organic Compounds in Ambient Air

Analysis Method:	TO-15	Analysis Batch:	200-90597	Instrument ID:	CHC.i
Prep Method:	Summa Canister	Prep Batch:	N/A	Lab File ID:	14495_27.D
Dilution:	2.99			Initial Weight/Volume:	67 mL
Analysis Date:	07/03/2015 0610			Final Weight/Volume:	200 mL
Prep Date:	07/03/2015 0610			Injection Volume:	200 mL

Analyte	Result (ug/m3)	Qualifier	RL	RL
Bromomethane	2.3	U	2.3	2.3
Carbon disulfide	130		4.7	4.7
Carbon tetrachloride	3.8	U	3.8	3.8
Chlorobenzene	2.8	U	2.8	2.8
Chloroethane	3.9	U	3.9	3.9
Chloroform	86		2.9	2.9
Chloromethane	3.1	U	3.1	3.1
cis-1,2-Dichloroethene	2.4	U	2.4	2.4
cis-1,3-Dichloropropene	2.7	U	2.7	2.7
Cyclohexane	3.0		2.1	2.1
Dibromochloromethane	5.1	U	5.1	5.1
Dichlorodifluoromethane	7.4	U	7.4	7.4
Ethylbenzene	18		2.6	2.6
Freon TF	14		4.6	4.6
Hexachlorobutadiene	6.4	U	6.4	6.4
Isopropyl alcohol	37	U	37	37
m,p-Xylene	56		6.5	6.5
Methyl Butyl Ketone (2-Hexanone)	6.3		6.1	6.1
Methyl Ethyl Ketone	46		4.4	4.4
methyl isobutyl ketone	6.1	U	6.1	6.1
Methyl tert-butyl ether	2.2	U	2.2	2.2
Methylene Chloride	5.2	U	5.2	5.2
n-Heptane	8.0		2.5	2.5
n-Hexane	12		2.1	2.1
Styrene	2.5	U	2.5	2.5
tert-Butyl alcohol	45	U	45	45
Tetrachloroethene	4.1	U	4.1	4.1
Tetrahydrofuran	54		44	44
Toluene	58		2.3	2.3
trans-1,2-Dichloroethene	2.4	U	2.4	2.4
trans-1,3-Dichloropropene	2.7	U	2.7	2.7
Trichloroethene	3.2	U	3.2	3.2
Trichlorofluoromethane	3.4	U	3.4	3.4
Vinyl chloride	1.5	U	1.5	1.5
Xylene (total)	73		2.6	2.6
Xylene, o-	16		2.6	2.6

# **Shipping and Receiving Documents**

## Canister Samples Chain of Custody Record

South Burlington, VT 05403  
phone 802-660-1990 fax 802-660-1919

*TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.*

## Canister Samples Chain of Custody Record

Client Contact Information		Project Manager: Dino Zack	Phone: 716-866-8222	Samples Collected By: E.L.AIN	1 of 2 coCs			
Company: AECOM		Email: Dino.Zack@AECOM.com						
Address: 257 W Genesee St. Suite 100								
City/State/Zip: Buffalo NY 14202								
Phone: 716-856-5636								
FAX:								
Project Name: Scott Aviation								
Site: Lancaster, NY								
PO #								
		Analysis Turnaround Time						
		Standard (Specify) ✓		Rush (Specify)				
Sample Identification		Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID
SVI - 551	6/26/15	9:48	1215	-30	-4	2537	4488	X
AAS - 1	6/26/15	9:43	1210	-28	-3	4516	5709	X
Duplicate	6/26/15	9:43	1210	-30	-5	5208	4920	X
SVI - 552	6/26/15	11:15	1350	-30	-5	2525	5167	X
SVI - 553	6/26/15	11:20	1355	-26	-5	3859	5641	X
SVI - 554	6/26/15	14:27	1610	-30	-5	5179	4096	X
Temperature (Fahrenheit)								
	Interior	Ambient						
	Start							
	Stop							
Pressure (inches of Hg)								
	Interior	Ambient						
	Start							
	Stop							
Special Instructions/QC Requirements & Comments: SVI - 554b and SVI-554 possibly bad gauges or sample did not collect - lab to check. possible little moisture in SVI-554 !								
Samples Shipped by: <i>Jeff Leach</i>	Date/Time: 6/26/15 1705				Samples Received by: <i>Mark Hall</i> 6/26/15 1705			
Samples Relinquished by: <i>Mark Hall</i>	Date/Time: 6/26/15 1800				Received by: <i>Mark Hall</i> 6/26/15 1800			
Relinquished by:	Date/Time:				Received by:			

## Special Instructions/QC Requirements & Comments:

SNI - SS4b ~~and~~ SNI-SS4 possibly bad fittings or sample did not collect - lab to check.



200-28653 Chain of Custody

Received by: Mark Hall Date: 6/26/15 Samples Received by: Mark Hall Date: 6/26/15

Received by: [Signature] Date: 6/3/15 / 3cc

Received by:

Shipper Name:

Condition: Opened by

## Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		Project Manager: <b>Dino Zack</b>	Samples Collected By: <b>E. Lacy</b>	<b>2 of 2</b> COCs
Company: <b>AECOM</b>	Phone: <b>716-866-8722</b>			
Address: <b>357 W. Genesee St. Ste 400</b>	Email: <b>Dino.Zack@aecom.com</b>			
City/State/Zip <b>Buffalo, NY 14202</b>	Site Contact: <b>Dino Zack</b>			
Phone: <b>716-856-5636</b>	TA Contact:			
FAX:				
Project Name: <b>Scott Aviation</b>	Analysis Turnaround Time			
Site: <b>Long Island, NY</b>	Standard (Specify)			
PO #	Rush (Specify)			
Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)
<b>SJI - SS4b</b>	<b>6/26/15</b>	<b>11:25</b>	<b>1430</b>	<b>-30</b>
<b>SJI - SSS5</b>	<b>6/26/15</b>	<b>11:30</b>	<b>1400</b>	<b>-30</b>
				<b>-7</b>
				<b>3223</b>
				<b>2779</b>
				<b>X</b>
				<b>X</b>
Temperature (Fahrenheit)				
	Interior	Ambient		
Start				
Stop				
			Pressure (inches of Hg)	
	Interior	Ambient		
Special Instructions/QC Requirements & Comments: <b>SJI - SS4b - possibly bad gauge or did not collect sample - Lab to check SJI and SSS5. possible little moisture in SJI-SS54.</b>				
Samples Shipped by: <b>John</b>	Date/Time: <b>6/26/15 17:05</b>	Samples Received by: <b>John</b>		
Samples Relinquished by: <b>John</b>	Date/Time: <b>6/26/15 1800</b>	Received by: <b>John</b>		
Relinquished by:	Date/Time:	Received by: Condition		
Shipped by: <b>John</b> Condition				

ORIGIN ID:DKKA (716) 504-9848 SHIP DATE: 26JUN15  
KEN KINECKI ACT/WT: 34.2 LB  
TESTAMERICA LABS CAD: 8466547CAFE2B07  
10 HAZELWOOD DRIVE BILL RECIPIENT  
AMHERST, NY 14228  
UNITED STATES US

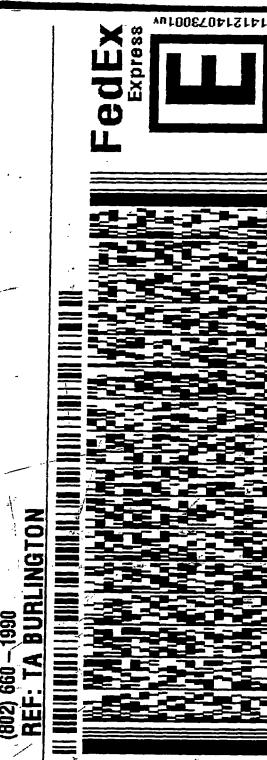
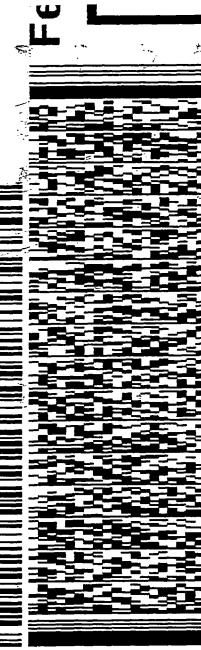
TO SAMPLE MGT.

TA BURLINGTON

30 COMMUNITY DRIVE

SUITE 11

SOUTH BURLINGTON VT 05403  
(802) 660-1990 REF: TA BURLINGTON



ORIGIN ID:DKKA (716) 504-9848 SHIP DATE: 26JUN15  
KEN KINECKI ACT/WT: 34.2 LB  
TESTAMERICA LABS CAD: 8466547CAFE2B07  
10 HAZELWOOD DRIVE BILL RECIPIENT  
AMHERST, NY 14228  
UNITED STATES US

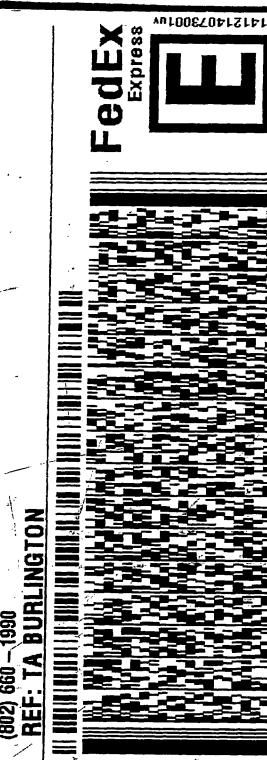
TO SAMPLE MGT.

TA BURLINGTON

30 COMMUNITY DRIVE

SUITE 11

SOUTH BURLINGTON VT 05403  
(802) 660-1990 REF: TA BURLINGTON



## Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 200-28653-1

**Login Number: 28653**

**List Source: TestAmerica Burlington**

**List Number: 1**

**Creator: Goodrich, Kenneth L**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	455562, 561
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 200-28653-1

**Login Number: 28653**

**List Source: TestAmerica Burlington**

**List Number: 2**

**Creator: Goodrich, Kenneth L**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
If necessary, staff have been informed of any short hold time or quick TAT needs		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Sampling Company provided.		
Samples received within 48 hours of sampling.		
Samples requiring field filtration have been filtered in the field.		
Chlorine Residual checked.		

**Attachment 8**

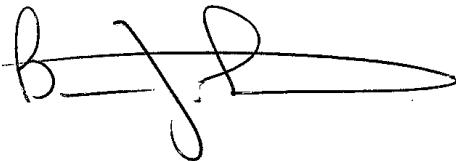
**Storm Sewer Analytical Report**

## ANALYTICAL REPORT

Job Number: 480-82175-1

Job Description: Scott Aviation BCP site (stormwater)

For:  
AECOM, Inc.  
257 West Genesse St.  
Suite 400  
Buffalo, NY 14202-2657  
Attention: Mr. Dino Zack



Approved for release.  
Brian J Fischer  
Manager of Project Management  
6/26/2015 1:48 PM

---

Brian J Fischer, Manager of Project Management  
10 Hazelwood Drive, Amherst, NY, 14228-2298  
(716)504-9835  
[brian.fischer@testamericainc.com](mailto:brian.fischer@testamericainc.com)  
06/26/2015

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the TestAmerica Project Manager who has signed this report. TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NHDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

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**Job Narrative  
480-82175-1**

**Comments**

No additional comments.

**Receipt**

The samples were received on 6/12/2015 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

**GC/MS VOA**

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-249517 recovered outside acceptance criteria, low biased, for Cyclohexane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-249575 recovered above the upper control limit for Vinyl Chloride and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data has been reported. The following samples are impacted: CB-5-061215 (480-82175-3) and Duplicate (480-82175-5).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## SAMPLE SUMMARY

Client: AECOM, Inc.

Job Number: 480-82175-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
480-82175-1	OF-1-061215	Water	06/12/2015 0920	06/12/2015 1330
480-82175-2	MH-1-061215	Water	06/12/2015 0900	06/12/2015 1330
480-82175-3	CB-5-061215	Water	06/12/2015 0930	06/12/2015 1330
480-82175-4	TP-6-061215	Water	06/12/2015 0910	06/12/2015 1330
480-82175-5FD	Duplicate	Water	06/12/2015 0800	06/12/2015 1330
480-82175-6TB	Trip Blank	Water	06/12/2015 0000	06/12/2015 1330

## EXECUTIVE SUMMARY - Detections

Client: AECOM, Inc.

Job Number: 480-82175-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>480-82175-1      OF-1-061215</b>						
1,1,1-Trichloroethane		1.5		1.0	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane		1.8		1.0	ug/L	8260C
1,1-Dichloroethane		1.0		1.0	ug/L	8260C
1,1-Dichloroethene		0.31	J	1.0	ug/L	8260C
2-Butanone (MEK)		4.5	J	10	ug/L	8260C
Acetone		27		10	ug/L	8260C
Bromodichloromethane		2.3		1.0	ug/L	8260C
Chloroform		3.4		1.0	ug/L	8260C
cis-1,2-Dichloroethene		2.6		1.0	ug/L	8260C
Dibromochloromethane		1.0		1.0	ug/L	8260C
Trichloroethene		0.52	J	1.0	ug/L	8260C
<b>480-82175-2      MH-1-061215</b>						
1,1,1-Trichloroethane		27		1.0	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane		19		1.0	ug/L	8260C
1,1-Dichloroethane		18		1.0	ug/L	8260C
1,1-Dichloroethene		3.7		1.0	ug/L	8260C
2-Butanone (MEK)		36		10	ug/L	8260C
Acetone		340		10	ug/L	8260C
Carbon disulfide		0.46	J	1.0	ug/L	8260C
Chloroform		0.55	J	1.0	ug/L	8260C
cis-1,2-Dichloroethene		44		1.0	ug/L	8260C
Methylcyclohexane		0.41	J	1.0	ug/L	8260C
Toluene		3.2		1.0	ug/L	8260C
Trichloroethene		1.5		1.0	ug/L	8260C
Vinyl chloride		1.6		1.0	ug/L	8260C
Xylenes, Total		7.4		2.0	ug/L	8260C
<b>480-82175-3      CB-5-061215</b>						
Acetone		6.6	J	10	ug/L	8260C
<b>480-82175-4      TP-6-061215</b>						
1,1,1-Trichloroethane		1.8		1.0	ug/L	8260C
1,1,2-Trichloro-1,2,2-trifluoroethane		0.31	J	1.0	ug/L	8260C
1,1-Dichloroethane		1.3		1.0	ug/L	8260C
cis-1,2-Dichloroethene		3.1		1.0	ug/L	8260C
Trichloroethene		0.49	J	1.0	ug/L	8260C
<b>480-82175-5FD      DUPLICATE</b>						
Acetone		6.9	J	10	ug/L	8260C

## METHOD SUMMARY

Client: AECOM, Inc.

Job Number: 480-82175-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Water</b>			
Volatile Organic Compounds by GC/MS Purge and Trap	TAL BUF	SW846 8260C	
	TAL BUF		SW846 5030C

**Lab References:**

TAL BUF = TestAmerica Buffalo

**Method References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

## METHOD / ANALYST SUMMARY

Client: AECOM, Inc.

Job Number: 480-82175-1

Method	Analyst	Analyst ID
SW846 8260C	Gentile, Joseph W	JWG
SW846 8260C	Goliszek, Gregory T	GTG

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

Client Sample ID: OF-1-061215

Lab Sample ID: 480-82175-1

Date Sampled: 06/12/2015 0920

Client Matrix: Water

Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53319.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0101			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0101				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.5		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.8		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	1.0		0.38	1.0
1,1-Dichloroethene	0.31	J	0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	4.5	J	1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	27		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	2.3		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	3.4		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	2.6		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	1.0		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	0.52	J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

**Client Sample ID:** OF-1-061215

Lab Sample ID: 480-82175-1  
Client Matrix: Water

Date Sampled: 06/12/2015 0920  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53319.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0101			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0101				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	106		66 - 137	
4-Bromofluorobenzene (Surr)	96		73 - 120	
Toluene-d8 (Surr)	97		71 - 126	

# Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

Client Sample ID: MH-1-061215

Lab Sample ID: 480-82175-2  
Client Matrix: WaterDate Sampled: 06/12/2015 0900  
Date Received: 06/12/2015 1330

## 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53320.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0129			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0129				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	27		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	19		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	18		0.38	1.0
1,1-Dichloroethene	3.7		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	36		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	340		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	0.46	J	0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	0.55	J	0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	44		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	0.41	J	0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	3.2		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	1.5		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

**Client Sample ID:** MH-1-061215

Lab Sample ID: 480-82175-2  
Client Matrix: Water

Date Sampled: 06/12/2015 0900  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53320.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0129			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0129				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	1.6		0.90	1.0
Xylenes, Total	7.4		0.66	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		66 - 137
4-Bromofluorobenzene (Surr)	101		73 - 120
Toluene-d8 (Surr)	95		71 - 126

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

Client Sample ID: CB-5-061215

Lab Sample ID: 480-82175-3  
Client Matrix: Water

Date Sampled: 06/12/2015 0930  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249575	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53344.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 1310			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 1310				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	6.6	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

**Client Sample ID:** CB-5-061215

Lab Sample ID: 480-82175-3  
Client Matrix: Water

Date Sampled: 06/12/2015 0930  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249575	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53344.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 1310			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 1310				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	104		66 - 137	
4-Bromofluorobenzene (Surr)	99		73 - 120	
Toluene-d8 (Surr)	99		71 - 126	

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

Client Sample ID: TP-6-061215

Lab Sample ID: 480-82175-4  
Client Matrix: Water

Date Sampled: 06/12/2015 0910  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53322.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0224			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.8		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	J	0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	1.3		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	3.1		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	0.49	J	0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

Client Sample ID: TP-6-061215

Lab Sample ID: 480-82175-4  
Client Matrix: Water

Date Sampled: 06/12/2015 0910  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53322.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0224			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0224				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	105		66 - 137	
4-Bromofluorobenzene (Surr)	97		73 - 120	
Toluene-d8 (Surr)	94		71 - 126	

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

### Client Sample ID: Duplicate

Lab Sample ID: 480-82175-5FD  
Client Matrix: Water

Date Sampled: 06/12/2015 0800  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249575	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53345.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 1338			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 1338				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	6.9	J	3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

**Client Sample ID:** Duplicate

Lab Sample ID: 480-82175-5FD  
Client Matrix: Water

Date Sampled: 06/12/2015 0800  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249575	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53345.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 1338			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 1338				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	105		66 - 137	
4-Bromofluorobenzene (Surr)	99		73 - 120	
Toluene-d8 (Surr)	99		71 - 126	

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

### Client Sample ID: Trip Blank

Lab Sample ID: 480-82175-6TB  
Client Matrix: Water

Date Sampled: 06/12/2015 0000  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53324.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0319			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0319				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	ND		0.82	1.0
1,1,2,2-Tetrachloroethane	ND		0.21	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.31	1.0
1,1,2-Trichloroethane	ND		0.23	1.0
1,1-Dichloroethane	ND		0.38	1.0
1,1-Dichloroethene	ND		0.29	1.0
1,2,4-Trichlorobenzene	ND		0.41	1.0
1,2-Dibromo-3-Chloropropane	ND		0.39	1.0
1,2-Dibromoethane	ND		0.73	1.0
1,2-Dichlorobenzene	ND		0.79	1.0
1,2-Dichloroethane	ND		0.21	1.0
1,2-Dichloropropane	ND		0.72	1.0
1,3-Dichlorobenzene	ND		0.78	1.0
1,4-Dichlorobenzene	ND		0.84	1.0
2-Butanone (MEK)	ND		1.3	10
2-Hexanone	ND		1.2	5.0
4-Methyl-2-pentanone (MIBK)	ND		2.1	5.0
Acetone	ND		3.0	10
Benzene	ND		0.41	1.0
Bromodichloromethane	ND		0.39	1.0
Bromoform	ND		0.26	1.0
Bromomethane	ND		0.69	1.0
Carbon disulfide	ND		0.19	1.0
Carbon tetrachloride	ND		0.27	1.0
Chlorobenzene	ND		0.75	1.0
Chloroethane	ND		0.32	1.0
Chloroform	ND		0.34	1.0
Chloromethane	ND		0.35	1.0
cis-1,2-Dichloroethene	ND		0.81	1.0
cis-1,3-Dichloropropene	ND		0.36	1.0
Cyclohexane	ND		0.18	1.0
Dibromochloromethane	ND		0.32	1.0
Dichlorodifluoromethane	ND		0.68	1.0
Ethylbenzene	ND		0.74	1.0
Isopropylbenzene	ND		0.79	1.0
Methyl acetate	ND		0.50	2.5
Methyl tert-butyl ether	ND		0.16	1.0
Methylcyclohexane	ND		0.16	1.0
Methylene Chloride	ND		0.44	1.0
Styrene	ND		0.73	1.0
Tetrachloroethene	ND		0.36	1.0
Toluene	ND		0.51	1.0
trans-1,2-Dichloroethene	ND		0.90	1.0
trans-1,3-Dichloropropene	ND		0.37	1.0
Trichloroethene	ND		0.46	1.0
Trichlorofluoromethane	ND		0.88	1.0

## Analytical Data

Client: AECOM, Inc.

Job Number: 480-82175-1

**Client Sample ID:** Trip Blank

Lab Sample ID: 480-82175-6TB  
Client Matrix: Water

Date Sampled: 06/12/2015 0000  
Date Received: 06/12/2015 1330

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	480-249517	Instrument ID:	HP5973C
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	C53324.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	06/23/2015 0319			Final Weight/Volume:	5 mL
Prep Date:	06/23/2015 0319				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Vinyl chloride	ND		0.90	1.0
Xylenes, Total	ND		0.66	2.0
<hr/>				
Surrogate	%Rec	Qualifier	Acceptance Limits	
1,2-Dichloroethane-d4 (Surr)	101		66 - 137	
4-Bromofluorobenzene (Surr)	97		73 - 120	
Toluene-d8 (Surr)	96		71 - 126	

# **Shipping and Receiving Documents**



## Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 480-82175-1

**Login Number: 82175**

**List Source: TestAmerica Buffalo**

**List Number: 1**

**Creator: Janish, Carl M**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	aecom
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	